



5th

INTERNATIONAL INTERDISCIPLINARY
BUSINESS-ECONOMICS ADVANCEMENT
CONFERENCE

CONFERENCE PROCEEDINGS

NOVEMBER 16-21, 2015
Ft. Lauderdale, Florida, USA

Co-Editors:
Prof. Dr. Cihan Cobanoglu
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ISSN: 2372-5885

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PREFACE

Ask someone to tell you the story of the blind men and the elephant, and they'll tell you a tale of six men, each of whom touched a different part of an elephant, unable to see what their hands were resting on. Asked to describe what they had touched, the man who felt the side of the elephant said, "I touched a wall," and the man who felt the elephant's tusk said, "I touched a spear." The six men argued among themselves-- was it a snake, a cow, a piece of rope? Only when they worked together, sharing their different ideas and experiences, were they able to discover the truth.

Gardy & Brinkman, 2003

The National Academies defines interdisciplinary research as “a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice.” The fields of business and economics are very suitable for interdisciplinary research. For this reason, we decided to create an international conference to feature business and economics research that spans more than one discipline. We are very happy to present to you the proceedings of the fifth International Interdisciplinary Business-Economics Advancement Conference. In these proceedings, please find 65 papers or abstracts from 20 different countries in different fields of business. We thank our contributors and reviewers for making IIBA a truly global conference. The provided USB-stick also includes the abstracts and full papers along with the conference program.

The IIBA Conference aims to bring together researchers, scientists, scholars and scholar students to exchange and share their experiences, new ideas, and research results regarding all aspects of Business and Economics, and to discuss the practical challenges encountered in the field as well as the solutions adopted. We are proud to be sponsored in the United States by the University of South Florida Sarasota-Manatee. We would also like to thank Turkish Airlines for their generous sponsorship. We extend our gratitude also to our Scientific Relations Coordinator, Mr. Muhittin Cavusoglu for his great contributions to the success of the Conference and creation of these proceedings.

Most importantly, we would again like to thank all of our authors and reviewers for their contributions, without which the IIBA Conference literally would not be possible.

Co-Editors:

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Prof. Dr. Serdar Ongan

November 2015

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Entrepreneurial Orientation in Namibia: The Dolam Community in Windhoek

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Abstract

This paper explores the various barriers that hinder expatriates in the underprivileged community of Dolam in Namibia from attaining larger entrepreneurial success. This paper will make use of both formal and semi-formal interviews as a means of collecting data. In the past, expatriates have settled in numerous areas within Namibia and have seized opportunities to establish businesses, but growth of such enterprises has failed due to numerous limitations. It is the aim of this paper to argue that small businesses cannot grow or succeed unless they are entrepreneurial. According to Gardella (2011) there are numerous problems associated with small businesses such as the lack of finance and access to it, lack of market information, lack of managerial skills and many others. However, in the context of Namibia, the question can be asked of whether slow entrepreneurial growth can be attributed to deep set cultural phenomenon or whether the above mentioned factors play a role specifically in the case of expatriates. In addressing the issue of constraints faced by expatriates, little or no particular attention has been paid to entrepreneurship which is the foundation upon which the development of any business rests. Entrepreneurship is the ability to seek out opportunities and turn them to profitable businesses. Entrepreneurship is closely associated with risk taking and the desire to succeed (Cantillion, 1723). This study wants to explore the factors which hinder foreign nationals from growing their businesses in Namibia.

Keywords: entrepreneurship, Dolam, expatriates, small businesses

Introduction

Namibia in history has passed through several stages from being colonized in the late nineteenth (19th) century to attaining its independence on 21st March, 1990. From 1884, Namibia was a German colony: German South-West Africa. After the First World War, the League of Nations mandated South Africa to administer the territory. Following World War II, the League of Nations was dissolved in April 1946 and its successor, the United Nations, instituted a Trusteeship system to bring all of the former German colonies in Africa under UN control. The location which is of interest in this study is Katutura; looking primarily at the Dolam community. Katutura in Otjiherero simply means “The place where people do not want to live.” Katutura is a township of Windhoek, Khomas Region, Namibia. Katutura was created in 1961 following the forced removal of Windhoek's black population from the Old Location, which afterwards was developed into the suburb Hochland Park.

Residents were hesitant and did not want to move. They had owned the land in Old Location whereas in Katutura all land belonged to the municipality. The newly allocated

land were also a lot smaller than those in Old Location, effectively forbidding the creation of gardens. Economically, black residents were much worse off after the move to Katutura because they were now paying rent to the municipality adding to the fact that they needed to utilize the bus stop services to reach their places of employment.

Katutura is home to Namibian's from various tribes, for example the Herero's residing in the Herero location, the Vambos at single quarters and the Damaras in Dolam. There is a diversity of cultures living in Katutura and also in Namibia. A relative number of foreign nationals from various countries around Africa and around the world have seized various business opportunities and started business in Namibia. The estimated population of Namibia is about two point three (2.3) million people according to the last census that was held in 2012 and an estimated six hundred thousand (600,000) of those people are foreign nationals.

Entrepreneurship is highly considered to be a viable solution to unemployment and the possible answer to questions like how to fight the challenge of poverty in specific suburbs. However, even for the great contributions and impact it has had on the Namibian nation, most people in Katutura are still facing a number of challenges to their businesses. The major challenges facing entrepreneurs in Katutura are finding start-up capital to begin ventures and the lack of funds for running the daily operating costs of the business.

Literature review

Over the years, vast attention has been given to the role of entrepreneurship in facilitating global economic development (Audertsch and Fritsch, 1991; Keeble et al., 1990; Kirschoff and Phillips, 1989). Using Africa as the primary area of interest, Morris, Pitt and Berthon (1996) conducted a study that examined the entrepreneurial activity in the third world informal sector carrying out their research in a small South African township of Khayelitsha. The conclusion was that the appeal of the informal sector as a solution to problems of economic development can be traced back to size as well as its ability to grow in spite of formidable obstacles (Morris et al., 1996).

This notwithstanding, there remains ambiguity as to what exactly constitutes the entrepreneurial sector. Does it belong strictly to the informal sector or do certain aspects of its constituting characteristics overlap into the formal sector? The answer to this question lies at the heart of the rationale that is employed when classifying the entrepreneurial activity in the Dolam community in Windhoek, Namibia which this paper endeavors to explore.

By way of definition the informal sector comprises all activities that fall outside the formal net of registered, taxed, licensed, statistically documented and appropriately zoned business enterprises (Thomas, 1988). The entrepreneurial orientations of communities whose residents are made up of mostly underprivileged individuals are hugely driven by the necessity and desperate desire to survive. This is both a gift and a curse as survival provides ample motivation for growth to a certain extent but it also serves as a limiting factor when it comes to innovation and diversification. To be sure, this rule applies to both indigenous and expatriate entrepreneurs alike.

In the Khayelitsha Township, the majority of responses from individuals questioned claimed to have created their businesses out of economic necessity, principally because they were out of work or needed to supplement their incomes (Morris et al., 1996).

Necessity drives most from rural settings to start businesses. There is therefore a growing recognition that not only do many businesses startup trading partially or wholly off-the-books, but many continue to do so once established (Antanopoulous and Mitra, 2009; Llanes and Barbous, 2007; Rehn and Taalas, 2004). Findings by Rehn and Taalas (2004) have serious implications on how owners of enterprises choose to model their establishments and are, therefore, a pertinent issue that this paper explored.

Till date, however, few studies have taken into consideration the extent to which local entrepreneurs and expatriate entrepreneurs manage to co-exist and compete for business and ultimately share growth opportunities in Dolam. A large proportion of the labor force in Dolam is employed informally. The statistic particular to Sub Saharan Africa is 72% (ILO, 2002b) of which 70% are self-employed. An outcome of this is that these self-employed entrepreneurs belonging to the informal sector have begun to be understood by Williams (2006) as the “hidden enterprise culture” that can be described these as opportunity driven. This implies that a relative number of early stage entrepreneurs operating informally eventually leave their formal jobs and become self-employed.

Across all the communities, two (2) groups of early stage entrepreneurs can be identified, namely, those whose enterprise is spinning off from their formal employment and those whose entrepreneurial ventures derive from some hobby or interest (Williams, 2006). This phenomenon is prevalent in many township settings and finds itself being manifested in the Dolam community also where the majority of the businesses being set up are garages, bars and small kiosks.

It is important to understand that if necessity is the key motive behind residents in rural communities embarking upon entrepreneurial ventures, this leads to a large hidden enterprise culture existing in the shadows of the rural economic landscape thus making rural communities far more entrepreneurial than so far assumed (Williams, 2011). An accompanying observation can be made that the growing predilection towards entrepreneurship in rural communities characterized by changing and uncertain contexts results in innovation getting constrained (Marcotte, 2010).

Anokin and Wincet (2012) in a similar study arrived at the conclusion that high entrepreneurial activity is normally accompanied by lower innovation rates in emerging economies. A similar observation revealed that entrepreneurial activity in emerging countries is generally of a low-impact and low-innovation kind. Valliere and Peterson (2009) reached a similar conclusion. This paper argues the same point and posits that the low-impact and low-innovation kind of entrepreneurship characteristic of emerging countries is the key reason why entrepreneurial growth in underprivileged communities is not substantial.

Claude (2014) argued differently from the above findings in his paper entitled Entrepreneurship in emerging economies, conceptual, methodological and contextual indicators. The results in that study reinforced the view that countries have their own way of being entrepreneurial especially so in emerging economies. Therefore, what normally would be classified as low growth is in fact the opposite of low growth. Claude (2014) further went to argue that essentially, entrepreneurial orientation of communities from emerging economies must and should be judged by a different set of rules.

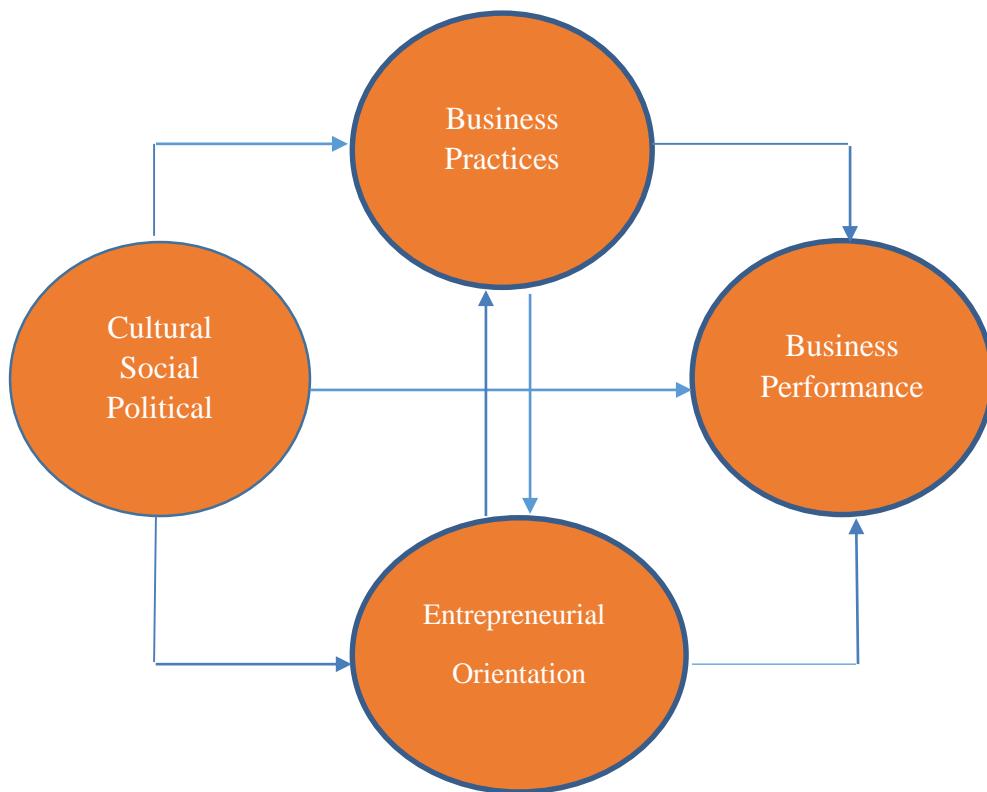
A relative number of entrepreneurs in the informal sector in rural communities like Dolam are generally assumed to be guided by personal survival and necessity-based entrepreneurship, as opposed to return on investment, (Callaghan & Venter, 2011). Although some entrepreneurs are motivated through opportunities, most provide a subsistence existence. In general, returns tend to be low and intermittent, stability and security are minimal, working hours are long and the working conditions are very challenging. Furthermore, informal businesses are generally associated with very low innovative capabilities and competencies in saturated markets often resulting in stagnation and low growth (Basardien, 2009).

Lumpkin and Dess (1996) noted that entrepreneurial orientation represents specific key entrepreneurial processes in terms of how new ventures are created. These include four (4) aspects noted by Miller (1983) namely, innovation, risk taking, proactivity and competitive aggressiveness. Some researchers have identified and tested three (3) of the dimensions of entrepreneurial orientation which are innovation, risk taking, and proactivity. Recently, studies involving entrepreneurial orientation have been used to examine entrepreneurial decision making at the individual level and its impact on business performance (Callaghan & Venter, 2011; Krauss, 2003, Basardien, 2012). This approach develops an individual based psychological concept of entrepreneurial orientation to investigate the relationship between business performance and entrepreneurial orientation.

The purpose of this study is to ascertain the entrepreneurial landscape that is particular to the Dolam community of Windhoek, Namibia. Furthermore, it seeks to probe the reasons that attract expatriate business men and women to set up shop in this area and whether or not they experience entrepreneurial growth.

Methodology

The general frame work of the entrepreneurial performance model developed by Basardien et al (2014) offers a more plausible explanation for the entrepreneurial process of the expatriate entrepreneurs of the Dolam community. The burning question then becomes, “To what extent do expatriate entrepreneurs apply successful creation of new ventures in an indigenous context?” Figure 1 below depicts the Entrepreneurial Performance Model.



Source: Entrepreneurial orientation of SPAZA shops Entrepreneurs (Basardien et al., 2014)

Figure 1: Entrepreneurial Performance Model

Sample

The participants were mainly people between the ages of 23 – 37. A sample of thirty (30) entrepreneurs was initially targeted, but due to challenges only ten (10) entrepreneurs participated. Using the interview material we gathered that though the population density of the community is very high the actual number of expatriates residing in the community is relatively few in comparison.

Data Collection

The method of data collection was qualitative in nature making use of interviews conducted both formally and semi-formally targeting a number of residents of this community who are entrepreneurial and expatriates.

Unstructured Interviews

During interviews, questions were asked regarding the challenges that the various individuals experience that affect the growth of their enterprises. Due to the levels of literacy being lower than that of other areas and the fact that English is not the first language of many whom live in Dolam, the questions were constructed using the most basic of English. Questions were framed to get information from the participants about their view on what entrepreneurship is and what kind of businesses that is prominent in their community. Questions also aimed at establishing whether or not residents were aware of expatriates living in their community.

Structured Interviews

Apart from unstructured interviews, structured interviews were adopted. These comprised direct face to face interview methods where participants were approached randomly on the street and asked questions of a structured format (see appendix). Secondary data used were obtained from journals, government publications, books that were written by a variety of scholars which are of interest to our study at hand.

Findings

The Businesses of Choice of Expatriate Entrepreneurs

Expatriate entrepreneurs have ceased opportunities to establish businesses that are involved in service orientation especially in the motor vehicle repair sector. Interviews with expatriate entrepreneurs revealed that most of the businesses they run are for the purpose of survival due to the limited resources they have available to establish well defined businesses.

According to the expatriates interviewed, mostly comprising of Angolans and Zimbabweans, such small service oriented businesses are easy to establish because of the limited requirements for their day to day operations. These businesses mainly comprise of human skills and competencies with little capital required and favorable registration laws.

Foreign nationalities such as Zimbabweans, Angolans, and Zambians are now evidently participating in the informal sector of the Namibian economy. These changes can be attributed to the influx of both legal and illegal immigrants from the region and beyond into Namibia (Muharaj, 2009).

The Informal Sector

As expatriate entrepreneurs participate in the informal economy, noticeable changes and differences have been observed. This study sought to add to the growing body of knowledge of entrepreneurial dynamics in Namibia by examining the cultural differences between Namibians and expatriates. Limited information is available from empirical research and statutory bodies on the nature and form of informal economic activities of expatriate entrepreneurs. Initiatives towards the recognition and advancement of this sector are yet to yield tangible results. Few articles discuss business led issues and in particular entrepreneurial strategies in the informal sector of the Dolam community.

A relative number of immigrants have turned towards the informal sector for a livelihood and an opportunity for prosperity. Informal sector activities are pervasive in informal settlements as a result of high levels of unemployment in Namibia. The situation has been aggravated by an influx of immigrants and of foreigner nationals who came in as political and economic refugees. Despite the challenges associated with poverty and unemployment affecting the rural communities and informal settlements, there is a reasonable amount of demand for some basic commodities to sustain the livelihood of people living in these areas.

Challenges faced by Expatriate Entrepreneurs

Noticeable among the challenges encountered by expatriate entrepreneurs is the factor of shareholding regulations. If a business is to be well established by an expatriate entrepreneur it is defined in the Namibian statutory that the majority shareholding capacity is to be held by a Namibian which comprises of fifty one percent (51%). Such laws and legislations have limited expatriates from fully growing and establishing their businesses.

Local Entrepreneurial Landscape

Various entrepreneurial actives are exhibited by the local Namibian people living in Dolam which cover the entire business spectrum of small basic start up enterprises to larger establishments that have a number of employees. Bars and shabeens were identified within a distance of two (2) kilometers. It is within this environment that competition among entrepreneurs have become extremely hostile and driven by aggressive pricing strategies. There is a considerable demand for goods and services within poor communities especially in the absence of formal enterprises and shopping malls.

Findings estimated that about thirty percent (30%) of the business start-up's in the Dolam community are because of the need to become self-sustaining due to the high levels of unemployment in Namibia. These start-up's have little or no room for growth due to the limited resources and experience available. Local entrepreneurs have no ambition to expand and are mostly content with making just enough to put food on the table and cater for other basic needs. This can be attributed to the lack of exposure to education that serves as motivation to grow businesses for more than survival purposes. The majority of people looking to go into business in Dolam start bars or 'shabeens'. Opening a shabeen would almost guarantee business and thus income for the entrepreneur.

Data collected revealed numerous challenges that these entrepreneurs face which hinder the growth of their businesses. Among these challenges, financing plays a major role. Analysis showed that another critical challenge faced by these entrepreneurs was the lack of proper infrastructure and access to it in this community.

Conclusion

This study has demonstrated that the business practices between local and expatriate entrepreneurs residing in Dolam are significantly different and are primarily caused by cultural differences and experiences of individuals involved. Expatriate entrepreneurs are more collectivist in nature, because being in the minority they have developed a sense of sticking together. Locals, on the other hand, are more individualistic and seek to establish enterprises that will benefit only themselves and their immediate family.

Expatriates entrepreneurs tend to have alternative sources of income and are therefore able to buy bulk inventory. With a limited budget the local entrepreneurs are not able to engage in the same practices as their expatriate colleagues. The majority of locals do not implement basic financial management practices in their business which means that there are no financial records of daily transactions to capture vital financial information that will allow the owner to see growth pattern in the business.

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APPENDIX:
Table 1: Interview with Owner of Shilongo Leather

Interviewer	Respondent
Is this a closed corporation?	It was established by my father
Are you just continuing with tradition?	Yes I am.
What inspired you to continue the legacy of your fathers business?	We grew up with it so we started loving it. It's not something that you can just wake up and decide let me do it. We decided to just continue.
What were the major challenges that you experienced as you decided to continue with the business?	No major business challenges as we were the only ones in the business but we faced life challenges.
How long as the business been in existence?	Since 1969
Do you have a lot of competitors?	Not really. A lot of them went out of business. For example the guys in Swakop that also used to do shoes but they stopped. Then there was Adolf the guys that used to do silk who also closed down. So now it's just mostly us and August 26 who are normally doing things for the army people and Nakara who just do leather jackets.
By what percentage do you think your business grown in the market share since you took over the business from your father?	Probably by about 20% increase and it's still growing. As you see most of the designs came way back so we are just continuing with them. Once you change the designs it's possible to lose customers so we just have to maintain the old design but remove one item and add another item gradually.
Do you feel like expanding from this factory to a bigger factory in the next coming years?	Yes in the next five years or less than that. What we want to do is enter into the export industry to start exporting and by then we should have more employees because currently we only have 20 and the minimum we need if we want to start exporting is 50.
Is that the requirement of the state that you need to have 50 or more workers in order to start exporting?	No, it's only because that way we are able to keep up with production and demand without exhausting our workers.
Is running a business a cultural thing for you or is it something that you grew up with?	It's something that we grew up with. It's inherent. As a kid as you grew up you will be thinking if I become a lawyer and you have to wait till month end to get money but if you establish your own business you know when and how to get your money.
So in your own words how would you define a business or being entrepreneurial?	Actually I seriously don't know. I wasn't raised business minded. But after two years working here I was eager to know how to make money and as time went by it was something that I decided to turn into a profitable business.

Corporate Governance in Indian Banks post Subprime Crisis

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Abstract

This paper attempts to unearth quality of corporate governance practices of Indian Banking sector and highlight whether the corporate governance practices of listed public and private sector banks are symmetric post subprime crisis. The study examines that whether the key corporate governance factors like capital adequacy ratio, board size, number of independent directors and CEO duality affects the performance of banks. In addition to this, the paper goes on to find the essence of shareholding by non-executive directors and the regularity of directors in attending the board meetings. Further, for the perusal of corporate governance practices followed in the Indian banking sector a corporate governance index has been compiled from the data of all listed Indian banks. Moreover, the paper endeavors to exhume any relationship between the educational qualification of directors and its contribution on the banks' performance, if any. The results provides an insight of the corporate governance structure of Indian banking sector and exhibit that the public and private sector banks have asymmetric corporate governance practices post subprime crisis. The empirical results of multiple regression analysis demonstrate a positive impact of corporate governance factors on Indian bank's performance.

Keywords: corporate governance, banks' board, board size, board monitoring

Introduction

Corporate governance is a way of life that moulds and directs the roles, responsibilities and rights of management and board of directors of organisations with a view to achieving the corporate objectives of the organisation and capturing the interests of various stakeholders (Okereke et al 2009). Corporate governance practices are relatively a new issue in Indian society and came into prominence in the 90's due to securities scam in 1992 and disappearance of number of companies after rising capital in stock market in mid-90. In light of the Asian financial crisis, high profile scandals in Russia and Latin America, and the increased focus placed on governance practices in the Middle East and North Africa, corporate governance has been brought to the forefront and has become a strategic issue for businesses in the increasingly globalized economy. Good corporate governance is required because of the existence of agency problems caused by the separation of ownership of resources and managing those resources Jensen and Meckling (1976) and minimize the conflict of interest between agents and principals. Sharma (2010) opines that corporate governance is the way organizations are managed and controlled and aims to achieve corporate excellence. Promoting the good corporate governance in banking sector is crucial to its economic performance. Therefore the extent to which this performance is

achieved vis-a-vis corporate governance in the banking sector demands an in-depth exploration investigation and perhaps it is also the focus of this study. The debate of corporate governance goes decades back but the advancements in the recent past have changed the paradigm of this debate. The studies of Qu et al. (2012) investigated empirically the performance of banks in the BRIC countries (comprising Brazil, Russia, India and China) during the financial crisis. The period under study was from 2003 to 2010, and it was found that, from 2007 to 2008, there was a significant decline in the banking efficiency due to the crisis. Similarly, Mecca et al (2014) have attempted to analyze the effect of board diversity (gender and nationality) on performance in banks and found its positive impact on banks' performance. Dalwai et al (2015) evaluates existing studies on the relationship of corporate governance with firm performance in different regions and address the need for similar analysis for the Gulf Cooperation Council (GCC) sector as well.

Formulation of Hypothesis

Adams and Mehran (2003) stated that the practices of corporate governance in the banking sector differ from other sectors because of their characteristics as a regulated industry. Starks et al. (2003) in their work hypothesized that corporate governance structures differ systematically across industries and firms due to differences in the costs and benefits of the monitoring mechanisms. Li and Harrison (2008) found that national culture has a dominant influence on corporate governance structure. Nippani et al. (2008) established that there exist significant differences between the governance structures of banks based on their size and that banks' stock market returns are significantly influenced by board composition. Cheung et al. (2010) found that the quality of corporate governance is very significant in explaining future company stock returns and risk. Kanojia (2010) endeavored to emphasize that if the board of directors contribute to the company at regular interval, it improves the performance of banks. Okereke et al (2010) exhibited a positive correlation between corporate governance and banks' performance. Utama and Musa (2011) shows that corporate governance practice, bank size and capital adequacy ratio have positive influence on bank performance in Indonesia. Wang et al. (2012) proved that corporate governance is important for the operating performance of BHCs. After reviewing the literature we found that the banks with poor corporate governance practice performed worse and led to the crisis (Chambers 2009, Ross and Crossan 2012). According to Indian Banking Regulation Act 1949 not less than 51% of the total number of the board of directors comprising members with demonstrable professional and other experience in specific sectors like accountancy, agriculture and rural economy, banking, co-operation, economics, finance, law, small-scale industry, any other matter the special knowledge of, and practical experience in, which would, in the opinion of the Reserve Bank of India, be useful to the banking company. Olivier et al. (2011) found that CEO non-duality, education level of executives, and a business education of the CEO and/or the chairman all relate to much better risk/return efficiency in the post-crisis period for banks. Their findings suggest that strict regulation in combination with improved board structure and composition might go a long way to improve the risk/return profile of banks. Largely it has been found that there exists a strong relation between governance structure, agency problem and firm's performance level. Most of studies indicate better governed companies are more profitable and have higher firm value especially in countries with weak legal environments. Prior

studies of Mace (1971), Pfeffer (1972), Lipton and Lorch (1992) and Jensen (1993) highlighted contrasting results of board size and effective monitoring. It has been empirically tested that large boards are generally less effective as compared to smaller boards due to communication and coordination advantages, Lipton and Lorch (1992); and Jensen (1993). In view of important findings discussed above the present paper aims to gauge the performance of all listed Indian banks post subprime crisis and its dependency, if any on corporate governance practices. Further, it attempts to examine that whether the key corporate governance factors highlighted in the banking literature like capital adequacy, board size, number of independent directors and duality affects the performance of banks. In addition to it the paper attempts to find essence of shareholding by non-executive directors and regularity of directors in attending board meetings. The objective of this paper is to find that whether corporate governance affects the banks' performance during the post crisis period and providing in-depth knowledge about the corporate governance practices along with the impact of education qualification of NEDs on the performance of Indian banking sector. The study proposes the following hypothesis:

- H₀₁: The capital adequacy ratio does not affect the bank performance.
- H₀₂: Board size has no impact on bank performance.
- H₀₃: Attendance rate of directors at board meeting has no influence on bank performance.
- H₀₄: Bank performance does not affected by number of independent directors on board.
- H₀₅: Number of shares held by NEDs does not affect the bank performance.
- H₀₆: Bank performance does not affected by CEO duality.
- H₀₇: Education Qualification of NEDs has no influence on bank performance.

Data and Methodology

This paper is based on the perusal of secondary data obtained from all the listed public as well as private sector banks in India. The relevant information about the key factors of corporate governance has been obtained through content analysis of the annual reports published by the banks. India has forty listed banks during the sample period of four years post subprime crisis 2008-09 to 2011-12. The data collected from content analysis of one hundred and sixty annual reports has been categorized to facilitate descriptive analysis and to apply multiple regression analysis thereon. The key corporate governance factors which exhibit significant correlation have further been regressed with the independent variables of board size, number of independent directors, shareholding by non-executive directors, duality, capital to risk asset, educational qualification of the board and ROA, ROE, ROI as proxy to bank performance. ROA (Return on Assets) equals after tax net income (profits) divided by average total assets of bank (Saunders and Cornett 2005, Lin and Zhang 2009) and reflects the deployment of bank assets to yield its income (Adams and Mehran 2003; Andres and Vallelado 2008). The central bank has set ROA as proxy for profitability while giving reference to the Indian banking conditions. Further, total assets as a denominator is very sensitive to the accounting methods used by the banks. The study also uses ROE (Return on Equity) as a proxy of bank performance relevant to shareholder's investment (Berger, et al. 2005; Kim and Rasiah 2010). ROI (Return on Investment) is one of the determinants of key performance indicators of private sector banks. In order to evaluate

the cause and effect of independent variables on the performance proxies the following regression equations have been formulated.

$$\text{ROE} = \alpha + \beta_1 \text{BOARD_SIZE} + \beta_2 \text{ATTENDANCE} + \beta_3 \text{SHARES} + \beta_4 \text{ID} + \beta_5 \text{CRAR} + \beta_6 \text{CEO_DUALITY} + \varepsilon \quad (1.1)$$

$$\text{ROA} = \alpha + \beta_1 \text{BOARD_SIZE} + \beta_2 \text{ATTENDANCE} + \beta_3 \text{SHARES} + \beta_4 \text{ID} + \beta_5 \text{CRAR} + \beta_6 \text{CEO_DUALITY} + \varepsilon \quad (1.2)$$

$$\text{ROI} = \alpha + \beta_1 \text{BOARD_SIZE} + \beta_2 \text{ATTENDANCE} + \beta_3 \text{SHARES} + \beta_4 \text{ID} + \beta_5 \text{CRAR} + \beta_6 \text{CEO_DUALITY} + \varepsilon \quad (1.3)$$

$$\text{ROE} = \alpha + \beta_1 \text{GR} + \beta_2 \text{PG} + \beta_3 \text{DOCT} + \beta_4 \text{PROF} + \varepsilon \quad (1.4)$$

$$\text{ROA} = \alpha + \beta_1 \text{GR} + \beta_2 \text{PG} + \beta_3 \text{DOCT} + \beta_4 \text{PROF} + \varepsilon \quad (1.5)$$

$$\text{ROI} = \alpha + \beta_1 \text{GR} + \beta_2 \text{PG} + \beta_3 \text{DOCT} + \beta_4 \text{PROF} + \varepsilon \quad (1.6)$$

Where:

- | | |
|----------------------|---|
| α and β | : constant and coefficient of regression |
| ε | : error term |
| BOARD_SIZE | : total number of directors in the bank |
| ATTENDANCE | : average attendance rate of the directors in the board meetings |
| SHARES | : percentage of shares held by NEDs |
| ID | : percentage of Independent directors in the board |
| CRAR | : Capital to Risk Assets Ratio |
| CEO_DUALITY | : dummy variable, its value is 1 when there is no duality and 0 in case of duality. |
| GR | : when number of NEDs who are graduate, is equal to or greater than average, then we put 1 and 0 otherwise. |
| PG | : when number of NEDs who are post graduate, is equal to or greater than average, then we put 1 and 0 otherwise. |
| DOCT | : when number of NEDs who have the degree of M.phil or PHD, is equal to or greater than average, then we put 1 and 0 otherwise. |
| PROF | : when number of NEDs who have the professional degrees, is equal to or greater than average, then we put 1 and 0 otherwise. |

Analysis and Findings

The results in Table 1 of descriptive analysis shows that the average ROA is 1 percent with minimum and maximum value being -0.4 percent and 1.63 percent consecutively. The average ROE is 15.47 percent with a minimum and maximum value consecutively -4.59 and 22.69 percent and the mean value of ROI is 6.91 with minimum of 6.09 and maximum of 7.57 percent. The minimum values are exhibiting the status just after the subprime crisis and there after the values tend to be positive as well as increasing showing that the sector maintains the assets and returns to the shareholder. We may state that except the year succeeding the subprime crisis, the banking sector in India has been surviving with an above average growth and operates in risk averting conditions. The average Tier I capital

is 9.87 percent with a minimum of 6.86 and maximum of 16.67 percent and the average of CRAR is 13.83 percent with minimum and maximum value consecutively are 11.70 and 18.92 percent.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROE (%)	40	-4.59	22.69	15.4660	5.63985
ROA (%)	40	-.40	1.63	1.0020	.41783
ROI (%)	40	6.09	7.57	6.9101	.39650
Tier I (%)	40	6.86	16.67	9.8732	2.23233
CRAR (%)	40	11.70	18.92	13.8334	1.72068
Growth (%)	40	-7.36	80.83	24.4540	17.02644
NPA (%)	40	.07	1.92	.8905	.49080
board size	40	7.00	14.25	10.6750	1.45478
attendance	40	4.88	12.01	8.1820	1.50587
Shares (%)	40	.000000	2.412500	.13712828	.445400439
ID (%)	40	36.36	91.22	68.8536	13.59183

Source: Research Compilation

This is perhaps due to the requirements of Central bank that the sector maintains a minimum CRAR of 9 percent and Tier I capital of 6 percent. Further, it indicates that Indian banks were well capitalised during the post crisis period and are conservative in their capital structure policy. The average growth rate of Indian bank is 24.45 percent with a minimum of -7.36 and maximum of 80.83 percent. The range of growth exhibited by the statistics highlight that some banks in the sample are extremely profitable but a few of them still have a questionable bottom line. Average NPA is 0.89 percent which is not high, with minimum and maximum value consecutively is 0.07 and 1.92 percent which implies the banking system in India in respect of securitization of their assets is doing well. Although, there have been times especially during the 1980-90 wherein NPA was a pan India problem. The data reveals such scenario has been a past and problem of NPA has been insignificant during the sample period. The stringent regulations of central banks may be credited for this advancement. The average board size in our sample is 10.68 with the maximum of 14.25 which indicates that the Indian banks follow the guidelines of RBI that all the banks should have minimum of 10 board members. The clause 49 of the listing agreement in India requires that every board shall meet at least four times a year with a gap of not more than four months between two meetings and the sample of the study shows that average attendance rate at board meetings is 8.18 with the maximum of 12.01 and minimum value of 4.88 which means that banks follow this requirement way above the statutory norms. Average percentage of independent directors in board is 68.85 percent with a minimum of 36.36 and maximum of 91.22 percent.

Correlation Analysis

The degree of association among the variables of the study is explored in Table 2 with Pearson correlation. The results indicate that ROA has a positive correlation with Tier I capital and CRAR (both significant at 99% confidence level) implying that for banks, capital adequacy plays a key role in the determination of profitability. Capitalization and

profitability are considered as indicators of banks' risk management efficiency and provides cushion against losses not covered by current earnings Olalekan and Adeyinka, (2013).

Table 2: Pearson's Correlation Analysis

	ROE	ROA	ROI	board size	attendance	ID	shares	CRAR	growth	NPA	tier I
ROE	1.000										
ROA	.771 **	1.000									
	.000										
ROI	.368*	.272	1.000								
	.019	.089									
board size	.264	.134	.093	1.000							
	.099	.410	.570								
attendance	.125	.081	.012	.721**	1.000						
	.442	.620	.941	.000							
ID	.150	-.015	.042	-.125	-.217	1.000					
	.355	.928	.797	.444	.180						
shares	-.046	.075	.204	-.054	-.006	-.195	1.000				
	.777	.644	.207	.739	.972	.229					
CRAR	-.004	.502**	-.117	-.050	-.056	-.097	-.033	1.000			
	.978	.001	.472	.757	.733	.552	.842				
growth	-.063	.112	-.096	-.391*	-.288	-.214	.194	.204	1.000		
	.701	.492	.557	.013	.072	.186	.231	.207			
NPA	-.500**	-.650**	-.030	.187	-.045	.033	.111	-.334*	-.295	1.000	
	.001	.000	.853	.248	.781	.840	.495	.035	.064		
tier I	-.111	.427**	-.186	-.177	-.063	-.014	.231	.783**	.223	-.323*	1.000
	.494	.006	.252	.275	.699	.931	.151	.000	.167	.042	
**. Correlation is significant at the 0.01 level (2-tailed).											
*. Correlation is significant at the 0.05 level (2-tailed)											

Further, the correlation analysis reveals that board size has negative correlation with growth rate which is significant at 95% confidence level which points out that larger board are generally less effective than smaller boards because of communication and co-ordination problems (Lipton and Lorsch 1992 and Yermack 1996). It's worthy to note that NPA have a negative correlation with Tier I capital and CRAR (both significant at 95% confidence level), probably when bank do not lend it leads to higher CRAR which results to lower NPA and vice-versa. The bivariate analysis is intriguing because the results provide a basis for interpreting the results of regression.

Multiple Regression Analysis

In order to examine the hypothesis 1.1, 1.2, and 1.3 that whether there is any impact of corporate governance factors on banks' performance. The results of regression have been summarized in table 3 for each year of study. In year 2008-09 ID and CRAR have a significant positive effect on bank performance measured by ROE. CRAR and share have a significant positive effect and CEO duality has a negative effect on bank performance

measured by ROA. The R^2 is 17.52%, 26.05% and 18.14% indicates the variation caused by CG variables on ROE, ROA and ROI respectively, though it's typically less as in the case of cross sectional panel data. In year 2009-10 we found significant positive influence of CRAR and share on ROA and ROI respectively. Similarly CEO duality has a negative impact on bank performance measured by ROI and ROE. Furthermore in year 2010-11 we found significant positive relation between CRAR and ROA and between board size and ROE. ROI is negatively influenced by attendance and positively influenced by shares. It has been observed that CRAR has a significant positive impact on bank performance measured as ROE and ROA in the year 2011-12. The implications of the findings based on multiple regression analysis indicates that ID has a positive effect on bank performance (ROE), so we may state that the null hypothesis H_4 may be rejected which states that bank performance does not affected by number of independent directors on board. Thus this study corroborates the argumentation that more number of independent directors in board increase the performance of bank (Cornett, McNutt and Tehraian 2009). But it does not show any significant relationship with ROA and ROI. The CRAR has a positive effect on profitability as measured by ROA and ROE, so the null hypothesis H_1 may be rejected that the capital adequacy ratio has no influence on bank performance. The results are consistent with previous research conducted by Unite and Sullivan 2003; Naceur and Kandil 2009, Utama and Musa 2011, Beltratti and Stulz 2009. Thus the existence of the bank's capital is an important instrument to preserve the liquidity of the bank (Siamat 2004). This finding supports the central bank's effort to strengthen bank's capital base by increasing the minimum capital adequacy ratio from 8% to 9% (In accordance with Basel III norms, Indian banks will have to maintain their capital adequacy ratio at nine percent as against the minimum recommended requirement of eight per cent). However we fail to find the positive effect of CRAR on ROI. Further it is found that shareholding of NEDs has a positive effect on bank performance measured by ROA and ROI as the large shareholders come with different sets of skills and preferences when they invest in the companies. And with the power these shareholders wield, their skills and preferences can have significant effects on bank profitability. Therefore null hypothesis H_5 may be rejected that number of shares held by NEDs has no impact on bank performance. These results are also supported by Ehikioya (2009) and Bhagat and Bolton (2008). Meanwhile, CEO duality has a negative influence on bank performance measure by ROE, ROA and ROI, suggesting the need to separate the position of CEO and chairperson to insure the independence of board for optimum bank performance. Therefore this result is consistent with the view that when one person holds the seat of CEO and chairman, there would be a more serious agency problem and reduction in the boards' effectiveness of monitoring top management (Fama and Jensen 1983). Thus we conclude that null hypothesis H_7 may be rejected that bank performance does not affected by CEO duality. Board size has a positive effect on ROE, so we may reject the null hypothesis H_2 which states that board size has no impact on bank performance. The result is consistent with the proposition that firms with larger boards are more efficient in their asset utilization and they are more likely to discipline their CEO for poor performance than smaller boards. This result is also supported by Adams and Mehran (2003) who find that the banking sector has a larger board size compared to the manufacturing sector and finally led to increased bank performance. Attendance has negative effect on ROI.

Table 3: Relationship between Bank Performance and Corporate Governance

Variable	2008-09						2009-10					
	ROE		ROA		ROI		ROE		ROA		ROI	
	Coefficient	Prob.										
C	5.90	0.669	-1.02	0.257	4.73	0.000	2.22	0.855	-0.96	0.299	7.46	0.000
BOARD_SIZE	-0.66	0.462	-0.04	0.511	0.12	0.110	1.10	0.238	0.10	0.169	-0.03	0.681
ATTENDANCE	0.76	0.397	0.06	0.339	-0.04	0.563	-0.99	0.260	-0.09	0.187	-0.05	0.494
SHARES	1.52	0.614	0.34	0.086	0.17	0.497	-1.02	0.695	-0.01	0.951	0.54	0.019
ID	0.17	0.041	0.01	0.196	0.01	0.240	0.14	0.110	0.00	0.469	0.00	0.652
CRAR	0.01	0.987	0.11	0.012	0.06	0.302	0.25	0.690	0.10	0.035	-0.01	0.902
CEO_DUALITY	-3.43	0.252	-0.34	0.079	-0.30	0.220	-5.53	0.050	-0.24	0.250	-0.60	0.013
R-squared	0.175		0.261		0.181		0.223		0.219		0.287	
Adjusted R-squared	0.025		0.126		0.033		0.082		0.077		0.158	

Variable	2010-11						2011-12					
	ROE		ROA		ROI		ROE		ROA		ROI	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.	Coefficie nt	Prob.	Coeffi cient	Prob.	Coeffi cient	Prob.
C	0.80	0.944	-1.26	0.107	7.19	0.000	-13.96	0.292	-1.30	0.122	7.60	0.000
BOARD_SIZE	1.10	0.055	0.06	0.125	0.03	0.490	0.70	0.369	-0.01	0.836	-0.03	0.658
ATTENDANCE	-0.51	0.365	-0.01	0.730	-0.08	0.096	0.37	0.663	0.04	0.433	0.06	0.414
SHARES	2.51	0.164	0.19	0.126	0.29	0.056	0.51	0.863	-0.03	0.868	0.25	0.304
ID	0.07	0.309	0.00	0.792	0.01	0.357	-0.02	0.800	0.00	0.470	0.00	0.700
CRAR	0.32	0.510	0.12	0.001	-0.03	0.420	1.52	0.033	0.17	0.000	-0.02	0.767
CEO_DUALITY	-3.04	0.109	0.02	0.848	-0.23	0.139	-2.66	0.317	-0.01	0.963	0.04	0.854
R-squared	0.176		0.377		0.206		0.224		0.440		0.096	
Adjusted R-squared	0.026		0.264		0.062		0.083		0.338		-0.068	

It may be because of higher attendance in board meetings leads to high expense in the payment of sitting fee which is given out of the profits of the corporate. Therefore, we may reject the null hypothesis H_3 which states that attendance rate of directors at board meeting has no influence on bank performance which is also supported by Spong and Sullivan (2010) who said that average attendance rate is not statistically related to bank risk. Board size and attendance are statistically significant only in the year 2010-11. However the OLS method has not indicated high level of R^2 which means that bank profitability is also affected by other factors too. It is always high and increasing when bank profitability is measured by ROA except year 2009-10 and it becomes 44.01% in 2011-12. Thus on the basis of the above results we conclude that CG practice has the positive influence on the bank performance, so we may state that our objective that corporate governance affects banks' performance hold truth. Therefore this result corroborates the previous studies (Adam and Mehran 2003, Brown and Caylor 2006 and Bhagat and Bolton 2008). The finding of the study are in congruence with the results of Utama and Musa (2011) and Wang, Lu and Lin (2012) who showed that CG practice have the positive influence on bank performance in pre-crisis period. Similarly Beltratti and Stulz (2009) and Emilia and Sami (2012) proved that banks with stronger CG mechanism were associated with higher profitability during the crisis period. Hence our results are consistent with the previous studies' results of pre-crisis period as well as during the crisis. During the study period 2008-09 to 2011-12 there were 1322 NED whose education qualification needs to be collected. Due to scarcity of data we got hold of the profile of 968 NEDs i.e., 73.22%. There were 33.16% graduate, 32.02% were post graduate, 14.46% had the doctoral degree and 20.35% of them were professionals during the study period. Hence, the basis of these results and their profiles which were given in the annual reports we may state that Indian banking has well educated and experienced non-executive directors.

Table 4: Relationship between Education Qualification and Bank Performance

ROE			ROA			ROI	
Variable	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.	
C	17.69802	0	1.178575	0	6.889504	0	
GR	0.755548	0.7133	0.164205	0.2667	-0.046601	0.7476	
PG	-3.355024	0.1168	-0.322562	0.0371	0.018956	0.8981	
DOCT	-0.663105	0.7394	-0.123134	0.3887	0.227273	0.1118	
PROF	-2.381705	0.2214	-0.189098	0.1746	-0.083131	0.5413	
R-squared	0.090266		0.156748		0.086517		
Adjusted R-squared	-0.013704		0.060377		-0.017881		

Hereafter in the succeeding section we checked the hypothesis 1.4, 1.5 and 1.6 that whether there is any impact of education qualification of NEDs on bank performance. The relationship predicted in equations 1.4, 1.5 and 1.6 is shown in the regression results produced in the above table 4 which exhibit the relationship between education qualification of NEDs and bank performance measured by ROE, ROA and ROI. It is found that in equation 1.4 GR is positively and PG, DOCT and PROF are negatively related with profitability (ROE) but not statistically significant. In equation 1.5 GR and profitability (ROA) is directly (positively) related as the slope coefficient of the model is positive (0.164). While the P value is 0.2667 which do not reject the null hypothesis, meaning that

it is not statistically significant. PG, DOCT and PROF are inversely related to the profitability as there signs are negative (-0.322, -0.123 and -0.189 respectively). The null hypothesis is not rejected by DOCT and PROF as they are not statistically significant except PG which is statistically significant at 5% as the p value is 0.0371. In equation 1.6 where ROI is the dependent variable, GR and PROF are negatively related to profitability, but not statistically significant. The PG and DOCT are directly related to profitability but are not statistically significant. The results indicate that we fail to reject the null hypothesis H₀₇ which states that education qualification of NEDs has no influence on bank performance as none of them has positive significant impact on profitability. In brief it may be said from the above results that profitability is not affected by education qualification and other factors like finance experience, management experience (Hau and Thum 2009), government background, business background, age and gender influence the profitability. Also according to Banking regulation Act 1949 the composition of Board of Directors comprising members with demonstrable professional and other experience in specific sectors like agriculture, rural economy, cooperation, SSI, law, etc.

Construction of Corporate Governance Index (CGI)

In order to find out the quality of corporate governance mechanism of Indian banks during the post crisis we have constructed the corporate governance index (CGI). The data from annual reports has been used to identify the mechanisms and practices of corporate governance. We have used the dummy variables which are not legally enforced by clause 49 of the Listing Agreements with the Stock Exchanges. The dummy variables which are included in CGI are as the CEO duality and chairman of the non- mandatory committees is NED, then variables are binary. Similarly if the complete disclosure of the information regarding education qualification of NEDs, percentage of independent directors in the board and percentage of shareholding by NEDs, ownership pattern, ED's and NED's compensation are there in annual reports then the variables take value 1, otherwise 0. The CGI's values can range from 0 to 12. An important note for the study is the fact that if in the index a bank presents a low level of corporate governance quality in a particular year, it does not mean that the bank actually has bad level of CG and if a bank ranked highly in the index, it does not mean that the bank has a good quality of CG mechanism. What we have tried to find in the study is the level of CG quality perceived by an outsider without an insider means, tools or accessibility to information during the study's time period 2008-09 to 2011-12. The sample includes 40 listed banks, so the total no. of observations is 160. The frequencies for the CGI have been calculated and then divided these frequencies into three groups; the first group of observations is located at values 0 to 4, the second at values 5 to 8 and third group at values 9 to 12. The group leads to 11.9% of the sample is ranked among the first group, while 60% is ranked among the second group and only 28.1% among the third group. If we join the second and third group then it covered 88.1% of the sample.

Independent-Samples T-Test

For testing the hypothesis that there is no difference between the CG practice of public and private sector banks of India Independent t-test has been used. The independent t-test compares the means between two unrelated groups on the same continuous, dependent variable. For the equal-variance t test the assumptions are: the observations should be independent, random samples from normal distributions with the same population

variance. For this t-test we have taken the mean value of all the dummy variables which are shown in table 7. So these variables collectively make the CG structure of a bank, which we want to test. Type of bank is the independent variable in this test which means for public banks we write 1 and for private bank we write 0 and the corporate governance mechanism is the dependent variable.

$H_{08}: \mu_1 - \mu_2 = 0$ ($\mu_1 = \mu_2$) There is no difference in the mean value of corporate governance mechanism between public banks and private sector banks.

$H_{09}: \mu_1 - \mu_2 \neq 0$ ($\mu_1 \neq \mu_2$) There is a difference in the mean value of corporate governance mechanism between public banks and private sector banks.

Testing the hypothesis as a two-tailed test with $\alpha = 0.05$ the t value of -8.436 falls within the critical region defined by the critical value of ± 2.048 and the p-value is less than alpha of 0.05. Therefore we may state that there is no difference in the mean value of corporate governance mechanism between public banks and private banks. As private banks have more mean value of corporate governance (mean = 9.1094, sd = 1.77475) than public (mean = 5.1562, sd = 1.19513). So we may state a significant statistical difference in these averages. Therefore we may say that there is no difference between CG practice of listed public and private sector banks of India.

Conclusion

We observed that the results of regression are not consistent during the study period but collectively the results point out that Indian banks' performance is positively affected by board size, number of independent directors, CRAR, and number of shares held by NEDs and it is negatively influenced by attendance and CEO duality. Hence we may conclude that the main factors of corporate governance of banks in India are board size, percentage of independent directors in the board, CRAR, number of shares held by NEDs and non CEO duality. Hence we may also state that CG factors have positive impact on Indian banks' performance during post crisis period, which is supported by the pre-crisis period results as well as during the crisis period. The implication of these findings is that corporate governance practices enhances the banks' performance and the findings supports the central banks' efforts to enhance the CG practice in the Indian banking sectors. The study gives a scope of further research by examining the data on other modified econometric tool like GMM (generalized method of moment) estimates. The model can be extended by including more variables like age and gender of board member and role, responsibility, eligibility criteria for appointment of independent NEDs. The study reveals that the performance and corporate governance variables of the listed Indian banks have been in a relatively comfortable position as read in other developed nations during the post subprime crisis period may be due to prudent regulation of the Reserve Bank of India and not so prevalent derivative holdings of banks.

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A Study of Corporate Governance in Selected Small and Mid-Cap Companies in India

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Abstract

The concept of corporate governance which is now an indispensable component of the regulatory system governing corporations worldwide, gained its popularity in the eighties and nineties. Its genesis lies in business scams and failures which took place in many countries. In response to such scams, the issue of corporate governance has risen to prominence amongst the policy makers and researchers. Most of the theories in the literature have accepted the positive association between good governance and superior performance of the firm. However, the focus has mostly been on large listed companies which are more visible. The lack of research on the governance practices of small and mid-cap companies is the key motivating factor behind this study. The focus of the study is to analyze the extent to which small cap and mid cap companies comply with the best practice corporate governance norms and to empirically study the impact of corporate governance practices on the performance of such companies. Investigations are made to determine whether they are simply ‘box ticking’ in complying with Corporate Governance norms or are they really going beyond the minimum standard mandated by the company laws and exchange regulations.

Keywords: corporate governance; small and mid-cap companies, firm

Introduction

Globally, corporate governance has become a buzzword in the corporate jargon especially after a spate of corporate failures, frauds and accounting scandals. The dramatic failures of Enron, WorldCom, Tyco, Arthur Anderson in USA, Northern Rock in UK, Satyam computers in India and the recent financial meltdown culminated in an increased interest in the importance of corporate governance and thus the formulation of various new CG codes and frameworks across different countries. The key elements of corporate governance, as accepted world over are transparency, disclosure, accountability and control. In addition, several studies conducted globally, highlight that good governance mechanisms result in improved firm’s performance and its value. The prior studies examining the impact of CG on firm’s performance have focused mainly on the larger band of companies i.e. the large cap companies. This study aims to bridge the void in the published literature by focusing on the governance practices of such small and mid-cap companies.

Literature Review

The following studies examine the relationship between corporate governance and performance of small and medium sized companies.

Disclosure of governance information by small and medium-sized companies in UK was examined by authors Sepideh Parsa, Gin Chong and Ewere Isimoya. The paper investigates the extent of compliance with the governance regulatory requirements by small and medium-sized companies listed on the alternative investment market (AIM) in UK. The paper focuses on AIM-listed companies over a period of three years (2002, 2003 and 2004) and concentrates on their extent of compliance with the corporate governance disclosure guidelines set out by the regulatory bodies. The relationships between the level of governance disclosure and the chosen characteristics were examined in order to highlight those factors that are associated with and affect the level of governance disclosure.

Another empirical study was conducted in New Zealand by authors Krishna Reddy, Stuart Locke, Frank Scrimgeour, Abeyratna Gunasekarage to analyze the corporate governance practices of small cap companies and their financial performance. The purpose of the paper is to examine the effect of corporate governance practices of small cap companies have had on their financial performances. This analysis focuses on the governance variables that have been highlighted by the New Zealand Securities Commission (2004) governance principles and guidelines and also on the governance variables that are supported in the literature as providing an appropriate structure for the firm in the environment in which it operates. The data for 71 small cap companies listed in New Zealand over a five-year period from 2001 to 2005 was analyzed. Pooled data, OLS and 2SLS regression techniques were used and Tobin's Q, ROA and OPINC were used as the dependent variables. The evidence does support the hypothesis that the existence of board independence and audit committee has enhanced firm financial performance, as measured by Tobin's Q.

Corporate governance practices of smaller listed companies in Australia have been analyzed by Gerry Gallery, Natalie Gallery and Kevin Plastow of Queensland University of Technology in 2010-2011. The paper investigates the internal corporate governance attributes of a sample of smaller Australian listed companies (non- top, 300- ASX listed companies) and assesses the extent to which these firms have adopted the Australian Stock Exchange (ASX) corporate governance recommendations. While conformance with the ASX recommendations has increased over time, it is unclear whether the increased conformance has translated into improved performance or if firms are engaged in ‘box-ticking’ that adds little or no value. If firms have engaged in ‘box-ticking’ more for the sake of appearance rather than effect, then little or no performance effect could be expected. However, the lower rate of adoption of some of the structural recommendations suggests that ‘box-ticking’ is not the sole motivation for the changes observed and that firms are being judicious in determining their optimal governance structure.

The corporate governance of Australia’s mid-cap companies came into the spotlight after the 2006 Horwath Mid-Cap Corporate Governance Report and the 2007 BDO Kendalls Mid-Cap Corporate Governance Report revealed that corporate governance standards of mid-cap companies were deteriorating. In fact, the reports found a disturbing trend - both a decrease in companies with excellent corporate governance, and an increase in companies with significant corporate governance deficiencies.

Tek Bahadur Lama of University of Western Sydney investigates whether there is economic rationale for governance of best practices particularly as stipulated in the Australian Stock Exchange's (ASX) corporate governance guidelines. This study extends the findings of the 2006 Horwath Mid-Cap Corporate Governance Report that found relatively weak corporate governance practices among Australian listed 'mid-size' companies. The analysis of 126 companies, included in the report based on the availability of necessary data, shows that the firm's level of compliance with governance of best practice is associated with its performance but the association appears tentative only.

Objectives of the Study

The study has been conducted to empirically study whether the compliance of Corporate Governance (CG) best practices by Indian listed small cap and mid cap companies has a positive impact on firm's performance. And to explore the nature and degree of compliance of CG best practices in small cap and mid cap companies.

Research Design and Methodology

The research design can be categorized into the following two sections. Each of the approaches has been discussed along with the methodology employed.

Empirical analysis of the impact of Corporate Governance mechanisms on the performance of Small and Mid-Cap Companies: A sample of 188 companies (94 small cap and 94 mid cap) is selected from the BSE small cap index and BSE mid-cap index respectively using the technique of stratified sampling where the different sectors were the different sub groups or strata. The finance and banking companies are excluded out of the sample as the governance provisions for these companies are different from those of other corporate. Data for the 188 companies in the sample were collected for a period of five years i.e. financial year ending 2007, 2008, 2009, 2010 and 2011. Hence the sample consists of 940 observations (188 firms * 5 years). Data relating to CG variables was collected from the 'CG reports' annexed to the 'Annual Reports' of the companies. The performance ratios are computed from the financial data provided by the 'Prowess' database of the Centre for Monitoring Indian Economy (CMIE). The data were analysed using multiple regression models, descriptive statistical tools, ANOVA and processed by using the Statistical Package for the Social Sciences (SPSS) program.

Dependent Variables: Firm's performance in the study is measured using Tobin's Q and Return on Assets.

Independent Variables: The study examines the various dimensions of CG such as board structure and independence, board procedures and effectiveness, audit committee procedures, remuneration committee procedures, disclosure and transparency. On this basis, the empirical model includes the thirteen CG variables as independent variables as shown in the table below.

Control Variables: Based on the literature, two control factors, leverage and firm size, are included in the theoretical model designed for this study.

Table 1: Description of Variables

Variables	Description	Measurement
NNEID	Percentage of non-executive independent directors to the total number of directors on the board of the company	(No. of independent directors) / (Total No. of Directors)
TNBM	Total number of board meetings held	Actual number of board meetings held
IDABM	Independent directors' percentage attendance in board meetings	Value zero if percentage is 60% or less and one if it is 61% or more
IDPAAGM	Independent directors' percentage attendance in AGM	Value zero if percentage is upto 50% and value one if it is 51% or higher.
CMD	Chairman of board and managing director's position is held by the same person or not	Value zero if it is same and one if it is different.
NACM	Number of audit committee meetings held	Value zero if up to four meetings are held annually, and value one if five or more meetings being held
NMemAC	Number of members in audit committee	Value zero if number is upto three and value one if it is four or more
PID in ACM	Percentage of audit committee members attending the audit committee meetings.	Value zero if percentage is upto 75%, otherwise it is one
CC	Chairman of company being independent or non-independent	Value zero if chairman is non-independent, otherwise it is one
RDP	Disclosure of Retiring directors' profile in the CG report.	Value zero if there is no disclosure, otherwise one.
NSHM	Disclosure of the number of shareholders general meetings in the CG report.	Value zero if no disclosure, otherwise one.
CompC	Compensation or remuneration committee existing in the company or not.	Value zero if no such committee has been formed otherwise one.
NCM	Disclosure of number of compensation meetings in the CG report	Value zero if details are not given in the report, otherwise one.
Fsize or Log TA	Firm's Size	Natural log of total assets as reported annually
Lev or DE ratio	Leverage	Total Debt/Total Equity
TQ	Tobin's Q	Total Market Value of a Firm/ Total assets
ROA	Return on Assets	[Net income + Interest expense (1-Tax rate)] / total assets

Empirical Model: The multiple regression analysis is performed on the dependent variables, Tobin's Q and ROA, to test the relationship between the independent variables with firm performance.

$$TQ = \beta_0 + \beta_1 NNEID + \beta_2 TNBM + \beta_3 IDABM + \beta_4 IDPAAGM + \beta_5 CMD + \beta_6 NACM + \beta_7 NMemAC + \beta_8 PID \text{ in ACM} + \beta_9 CC + \beta_{10} RDP + \beta_{11} NSHM + \beta_{12} CompC + \beta_{13} NCM + \beta_{14} Fsize + \beta_{15} Lev + \varepsilon$$

$$ROA = \beta_0 + \beta_1 NNEID + \beta_2 TNBM + \beta_3 IDABM + \beta_4 IDPAAGM + \beta_5 CMD + \beta_6 NACM + \beta_7 NMemAC + \beta_8 PID \text{ in ACM} + \beta_9 CC + \beta_{10} RDP + \beta_{11} NSHM + \beta_{12} CompC + \beta_{13} NCM + \beta_{14} Fsize + \beta_{15} Lev + \varepsilon$$

Examination of the Nature and Degree of Compliance of Corporate Governance Best Practice in Small and Mid-Cap Companies: In order to determine whether the small and mid-cap companies are simply ‘box ticking’ or complying with the best practices of CG in letter and spirit, an analysis is conducted exploring the nature and degree of compliance of CG best practice in small and mid-cap companies. Statistical techniques are employed using Microsoft excel to compute the percentage of sample companies which have adopted the best practice CG norms for each of the five years under study (i.e. 2007-2011).

Analyses & Results

The analysis has been categorized under two sections- section A (small cap companies) and section B (mid cap companies). Analyses for the first and last year under our study are presented below.

Section A – Small Cap Companies’ Analyses: The following section analysis the impact of corporate governance mechanisms on companies’ performance. The output tables produced using SPSS software are interpreted and presented for the first and last year under study.

Financial year 2006-2007

Case I: Linear multiple regression is run on the independent variables under study using ROA as a dependent variable.

Table 2: Model Summary

R	R ²	Adjusted R ²	Std. Error of the Estimate	R ² Change	F Change	Df1	Df2	Sig. F Change
0.600	0.360	0.237	10.182	0.360	2.926	15	78	0.001

R² equal to 0.36 which means 36% of the variation in the dependent variable i.e. ROA is caused by the independent variables i.e. CG variables. The p value for F statistic is .001 i.e. less than 0.05 which indicates that at least one of the independent variables is a significant predictor of the dependent variable.

Table 3: Coefficients

Dependent Variable	Unstandard -ized coeffiecient s		Standard -ized Coefficie nts				95% Confidence Interval for B		
	B	Std Error	B	t	Sig. 2 Tail	Sig. 1 Tail	Lower Bound	Upper bound	VIF
Constant	18.93	15.0		1.26	0.21	0.11	-11.10	48.95	
NNEID	-12.41	7.95	-0.16	-1.56	0.12	0.06	-28.24	3.42	1.21
TNBM	-0.73	0.43	-0.18	-1.71	0.12	0.06	-1.59	0.13	1.39
IDABM	-6.77	3.77	-0.21	-1.79	0.14	0.07	-14.28	0.75	1.64
IDPAAGM	9.85	4.25	0.24	2.32	0.02	0.01	1.38	18.32	1.28
CMD	5.47	3.63	0.21	1.51	0.10	0.05	-1.77	12.70	2.39
NACM	-0.36	2.62	-0.02	-0.14	0.89	0.45	-5.57	4.85	1.55
NMemAC	1.32	2.55	0.06	0.52	0.61	0.30	-3.76	6.39	1.45
PID in ACM	-0.72	2.50	-0.03	-0.29	0.78	0.39	-5.69	4.26	1.34
CC	-3.38	3.21	-0.14	-1.05	0.30	0.15	-9.76	3.01	2.26
RDP	-10.32	4.67	-0.23	-2.21	0.03	0.02	-19.62	-1.02	1.36
NSHM	15.19	11.7	0.13	1.30	0.20	0.10	-8.13	38.5	1.31
CompC	16.50	4.52	0.71	3.65	0.00	0.00	7.50	25.5	2.60
NCM	-17.20	4.61	0.72	-3.73	0.20	0.10	-26.37	-8.02	2.50
LogTA	-0.71	0.92	-0.08	-0.77	0.44	0.22	-2.55	1.13	1.34
D/E	-2.18	0.90	-0.24	-2.42	0.02	0.01	-3.97	-0.38	1.18

Two variables with p values less than 0.05 are IDPAAGM and CompC. Hence these two variables are significant in explaining variations in ROA. Therefore it can be said that independent directors' attendance in board meetings and existence of a compensation committee are good predictors of ROA. Furthermore, multicollinearity does not exist because the VIF (variance inflation factor) scores are less than 3.

Case II: Linear multiple regression is run on the independent variables under study using Tobin's Q as a dependent variable- The p value obtained for F statistic is 0.002 which is less than 0.05. Hence the model is useful in predicting the variation in Tobin's Q. Three variables are good predictors of Tobin's Q at 5% level of significance. They are NNEID, IDABM and NACM as p value for these three variables is less than or equal to 0.05.

Financial year 2010-2011

Case I: Linear multiple regression is run on the independent variables using ROA as a dependent variable- R² value obtained is 0.453 which means 45.3% of the variation in ROA is explained by the predictors in the model. The CG variable which contributes significantly in explaining variations in ROA are IDPAAGM and NSHM as the p value corresponding to the t statistic for these variables is less than 0.05. Hence they are statistically significant at $\alpha=5\%$ level of significance.

Case II: Linear multiple regression is run on the independent variable using Tobin's Q as a dependent variable- In this case, 53.5% of the variation in Tobin's Q is explained by the predictors in the model. F statistic is statistically significant at 5% level of significance. The CG variables which contribute significantly in explaining variations in Tobin's Q are NNEID and IDABM.

Section B- Mid Cap Companies' Analyses: The sample of mid cap companies consists of 94 companies selected from the BSE mid cap index. The output tables produced using SPSS software are interpreted for the first and last year under study.

Financial year 2006-2007

Case I: Linear multiple regression is run on the independent variables under study using ROA as a dependent variable- F statistic of 1.37 with p value of 0.189 is statistically insignificant at 5% level of significance. It means that the model is not useful in predicting the value of the dependent variable.

Case II: Linear multiple regression is run on the independent variables under study using Tobin's Q as a dependent variable- It was found that the F statistic of 3.02 with p value of 0.001 is statistically significant at 5% level of significance. It means that the model is useful in predicting the value of the dependent variable. The CG variables which contribute significantly in explaining variations in Tobin's Q are NNEID and CMD.

Financial year 2010-2011

Case I: Linear multiple regression is run on the independent variables under study using ROA as a dependent variable- It results in an F statistic of 4.02 with p value of 0.000 is statistically significant at 5% level of significance. The CG variable which contributes significantly in explaining variations in ROA is IDABM.

Case II: Linear multiple regression is run on the independent variables under study using Tobin's Q as a dependent variable- In this case, R^2 value of 0.483 means 48.3% of the variation in Tobin's Q is caused by the independent variables in the model. The CG variables which contribute significantly in explaining variations in Tobin's Q are TNBM and CMD.

Level of Compliance to Best Practice Corporate Governance Norms- Whether Simply 'Box Ticking' or Going beyond the Minimum Mandatory Standard

The Tables below show the percentage of sample companies which have adopted the best practice CG norm for each of the five years under study. Mid- Cap companies have moved progressively to adopt the best practices in CG, with over all percentage of adoption rising over the years i.e. 55% in FY07, 61% in FY08, 62% in FY09, 62% in FY10 and 66% in FY11. It can be seen that the adoption percentage of variable TNBM (range 70%-90%) is much higher and that of NNEID (range 20%-30%), IDABM (range 20%-45%) and IDPAAGM (range 10%-20%) is much lower i.e. although the number board meetings held annually are more than the minimum prescribed number of four but the percentage of independent directors attending such board meetings is very low. A good percentage of companies have formed a compensation committee (range 60%-80%) but the level of activity of this committee as measured by the number of meetings of compensation committee (range 45%-70%) held annually has remained low.

The average of all five years adoption percentage of small cap companies (60%) is lower than that of mid cap companies (61.2%). The adoption percentage of variable TNBM (range 70%-80%) is much higher and that of NNEID (range 30%-40%), IDABM (range

14%-32%) and IDPAAGM (range 8%-47%). CMD (range 60%-68%) has more or less the same percentage of adoption over the years. Although a compensation committee exists in most of the companies (range 45%-78%) but level of activity of this committee as measured by the number of meetings of compensation committee (range 35%-65%) held annually has remained low.

Table 4: Level of Compliance of Mid Cap Companies

Variable	Best Practice CG Norm	FY 07	FY 08	FY 09	FY 10	FY 11
Percentage of sample companies complying above minimum CG standard						
NNEID	Value More than 50%	21	19	32	23	28
TNBM	Value More than Four	89	82	83	83	77
IDABM	Value more than 60%	24	29	29	40	45
IDPAAGM	Value more than 50%	13	16	11	21	20
CMD	Separated position of chairman from that of MD	61	67	76	71	77
NACM	Value more than five	53	57	61	61	52
NMemAC	Value more than three	56	67	71	68	77
PID in ACM	Value more than 75%	45	56	53	55	64
CC	Independent Chairman	56	74	65	68	73
RDP	Retiring directors profile disclosed	87	88	85	85	96
NSHM	Disclosure is made in annual report	100	100	99	100	100
CompC	Existence of compensation/remuneration committee	59	76	76	70	80
NCM	Disclosure of the number of such meetings is made	48	66	67	62	68
Overall adoption % by mid cap cos.	Average - 61.2%	55	61	62	62	66

Table 5: Level of Compliance of Small Cap Companies

Variables	Best Practice CG Norm	FY07	FY08	FY09	FY10	FY11
Percentage of sample companies complying above minimum CG standard						
NNEID	Value More than 50%	30	35	35	40	38
TNBM	Value More than Four	79	80	80	84	77
IDABM	Value more than 60%	15	30	32	41	32
IDPAAGM	Value more than 50%	9	22	41	44	47
CMD	Separated position of chairman from that of MD	72	63	71	65	71
NACM	Value more than five	49	55	51	53	44
NMemAC	Value more than three	56	59	62	57	55
PID in ACM	Value more than 75%	38	69	78	65	55
CC	Chairman being independent	59	61	66	57	44
RDP	Retiring directors profile disclosed	93	96	93	93	66
NSHM	Disclosure is made in annual report	99	100	99	99	90
CompC	Existence of compensation/remuneration committee	46	77	72	78	78
NCM	Disclosure of the number of such meetings is made	37	66	59	60	60
Overall adoption % by small cap cos.	Average- 60%	52	62	64	64	58

Findings of the Analyses and Interpretation

The key findings of the analyses and its interpretations have been discussed in the following section.

Upward Trend in the Goodness of Fit over the Years: It is observed for both small cap and mid cap companies; the R Squared value of the regression model has shown an upward trend over the years. In other words the extent to which CG variables influence the firm's performance has become stronger in the recent years of our study. This increasing association can be attributed to the various reforms introduced in the Indian corporate law in the year 2006 and 2009.

After the corporate governance scams worldwide, SEBI revised and improvised Clause 49 of the Listing Agreement. Also in the year 2009, Ministry of Corporate Affairs released a set of voluntary guidelines which focus on various corporate governance matters to bring more transparency and objectivity.

Variables Showing Significant Impact on Firm's Performance: The independent directors are legally required to protect the interest of the shareholders, and to enhance the firm's return and value. A board which comprises of higher percentage of independent directors could signify objectivity and answerability to shareholders, and assurance of their compliance with necessary CG codes. Our empirical results also demonstrate a positive significant association between directors' independence and firm's performance. As observed under section A, IDPAAGM has a significant positive impact on firm's ROA in the year 06-07 and 10-11. Variable IDABM significantly and positively impacts Tobin's Q in the year 06-07 and 10-11.

Another important CG issue is related to separation of the position of chairman from that of managing director. As observed under section B, CMD positively and significantly impacts ROA in the year 06-07 and Tobin's Q in the year 06-07 and 10-11.

Compensation/ Remuneration committees are responsible for structuring CEO remuneration packages, evaluating management's performance. Effective remuneration committee structures lead to appropriate remuneration packages linked to strong incentives. As seen under section-A, variable CompC has a positive significant impact on firm's performance measured by ROA in the year 06-07.

The audit committee is one of the most significant governance instruments which ensures that a corporation produces appropriate, sufficient and reliable information that stockholders can use to evaluate the performance of the business. The results obtained show audit committee's independence and frequency of its meetings, existence of an active remuneration committee have positive influence on firm's financial performance.

Impact of CG Provisions on Firm's Value (Tobin's Q): ROA measures the operating performance of the firm where as Tobin's Q is a measure of the firm's value. Our empirical results demonstrate that the model's goodness of fit is stronger when firm's performance is measured using Tobin's Q rather than ROA. In other words, good corporate governance

practices have a greater impact on firm's value than its operating performance. Reason being, firms which adopt good governance norms send positive signals in the market and it is this signal that affects firm value.

Level of Compliance of Mid Cap Companies Better than that of Small Cap Companies: It can be observed that the average of all five years adoption percentage to CG best practices for mid-cap companies 61.2% and that of small cap companies is 60%. The main reason which can be attributed for the same is the cost of compliance. Compliance with various structural and disclosure CG norms like formation of different committees, holding frequent meetings and disclosure of their details in the annual reports poses a financial burden on companies and thus cost becomes a constraint for smaller companies.

Some Firms engage in ‘Box Ticking’: A good percentage of mid cap companies have formed a compensation committee (range 60%-80%) but the level of activity of this committee as measured by the number of meetings of compensation committee (range 45%-70%) is relatively low. This hints towards window dressing of annual reports wherein simply formation of a committee leads to compliance with the non-mandatory clause of the listing agreement although the committee mostly remains inactive.

Implications and Suggestions of the Study

The research findings are used to determine the issues and noteworthy features of corporate governance practices in Indian small and mid-cap companies, in order to make suggestions to improve the corporate governance environment of such companies.

Enhance the Effectiveness of Independent Directors: Role of independent directors is of utmost importance in ensuring high standards of corporate governance and hence improving the firm's performance. The independent directors appointed on the board must possess the required skills, qualifications, knowledge regarding the company's affairs so as to fulfill the demands of their position. It has been observed in the present study, presence of higher percentage of independent directors on the board, independent directors' percentage attendance in AGM and board meeting has a positive influence on the firms' performance as it improves the quality of governance.

However this progressive impact on performance can be found when independent directors behave like 'external protectors' and bring about transparency, accountability and fairness in the governance of companies. They are instigated on board because of their high monitoring ability with aimed at reducing the agency cost arising out. Independent directors are delegated by law to protect the interest of stockholders and to enhance firm's return and value. Hence the independent directors appointed must possess adequate qualification, expertise and knowledge about business and management to carry out their responsibilities. They should continuously seek information which is necessary to carry out their charge and be informed about the changes in corporate laws and regulations which can contribute to an effective governance system.

Split Chairman and CEO Roles: Separating the position of chairman from that of CEO/MD is another factor which leads to better firm's performance. This has been

confirmed by various other studies on corporate governance that one person holding both these positions can lead to a totalitarian form of structure which indicates conflict of interest and can be used to abuse power

Independent and Active Audit Committee: The Audit Committee plays a crucial role in ensuring good corporate governance and thus enhancing firm's performance. Audit committee's effectiveness in discharging its oversight and monitoring function depends upon various factors like its independence, level of activity measured by its size and meeting frequency and financial literacy.

An important factor which determines the effectiveness of the audit committee to implement, monitor and continue good corporate governance practices for the benefit of the company and its stakeholders is its level of activity. An active audit committee with existence of a number of members (Two Third of which are independent directors as per Companies Act 1956) and which meets frequently can be more alert in reducing the probability of occurrence of errors, omission or fraud and thus reduce the probability of occurrence of corporate governance scams and scandals.

An Effective Remuneration Committee: The present study has found a positive association between firm's performance and existence of a remuneration/ compensation committee. This positive association can be attributed to the role of remuneration committee in fixing the pay packages in such a way that rewards are linked to corporate and individual performance.

However the remuneration committee can be effective if it has the crucial features grounded in global corporate governance codes and principles such as: it should be established and comprise of non-executive directors with the chairman and the majority being independent non-executive directors; the remuneration committee should be accountable to recommend to the board the compensation policy as well as all aspects of compensation for key officials including all the executive directors and the CEO.

Conclusion, Contribution and Limitations

With an attempt to bridge the gap in the existing literature on corporate governance, wherein, the focus of studies have mostly been the large caps, the present study provides evidence of governance and performance relationship in the context of small and mid-cap companies listed in India. The empirical results of the study suggest that the extent to which the CG mechanisms impact firms' performance has become stronger in the recent years of our study. Firms which adopt good governance norms send positive signals in the market which in turn leads to a more satisfied set of stakeholders. Both mid-caps and small-caps have shown an upward trend in the level of compliance to CG best practices. Although it has been observed that mid-caps have relatively better compliance than the small caps. This can be attributed to the cost of compliance which poses a financial burden on the smaller companies. The study raises concerns about the 'box-ticking' exercise merely to comply with mandated standards. This is suggested by the descriptive statistics, that a good percentage of sample companies have formed the committees but the level of activity of the committee as measured by the number of meetings of the committee is relatively low.

As with most empirical studies, our research is not free from limitations, and it must be acknowledged while interpreting the results. The direction of causality remains indeterminate, as profitable firms may have good governance practices rather than the other way round. Relatively small sample size can be another limitation of the study. However, despite the aforesaid limitations, sufficient data has been collected and empirically analyzed to find interpretable results which have answered the objectives of our study.

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Review of Service Dominant Logic in Service Management Research

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Abstract

Ten years ago, Vargo and Lusch (2004a) first proposed the concept of “service-dominant logic” in the *Journal of Marketing*. Since then, service-dominant logic has triggered numerous academic conversations in the literature. Vargo and Lusch have also reformulated the key themes of the theory every few years. However, the related papers rarely seem to offer criticism or even question service-dominant logic. Although many papers have been published under this perspective, many researchers still do not fully understand the foundations that underpin the concept. Thus, the purpose of this essay is (1) to reduce the complexity of service-dominant logic by examining the differences between service-dominant logic and the traditional paradigm (goods-dominant logic); (2) to explain the key concepts in service-dominant logic; (3) to outline the strengths and weaknesses of service-dominant logic; and (4) to examine the influence of service-dominant logic on the future of service management.

Keywords: service dominant logic, goods dominant logic, service management research

The Development of Service-Dominant Logic in Service Management

The Differences between Service-Dominant Logic and Goods-Dominant Logic

Since the 1970s, researchers have recognized the difference between goods and services (Rust & Miu, 2006). Service marketing research has demonstrated that customers can be treated differently in a service context, compared to the traditional methods in goods logic, derived from a manufacturing context (Grönroos & Gummesson, 2014). In their seminal paper (2004a), Vargo and Lusch compiled service research since the 1970s and proposed a revolutionary service-dominant logic, supported by a system of foundational premises. The primary purpose of service-dominant logic is to reconceptualize, and hence reposition, the concept of “service,” as well as to acknowledge the interface between service providers and customers (Vargo & Lusch, 2004a, 2004b, 2008a, 2014). Since Vargo and Lusch’s original article, marketing has been moving from goods-dominant logic, which focuses on tangible output and discrete transactions, to service-dominant logic, which focuses on intangibility, exchange processes, and relationships.

The differences between service-dominant logic and goods-dominant logic have been explored in the literature (Lusch, Vargo, & Wessels, 2008; Vargo & Lusch, 2004a). Primarily, service-dominant logic is viewed as an alternative approach to the traditional goods-dominant logic, and a theoretical foundation on which service science can be developed. The main difference lies in the notion of economic exchange. Goods-dominant logic, also known as “old enterprise logic” or “neoclassical economics,” contends that

“economic exchange is fundamentally concerned with units of output (products) that are embedded with value during the manufacturing (or farming, or extraction) process” (Vargo & Lusch, 2008b, p. 255). Goods-dominant logic focuses on the production and distribution of tangible goods, with the goals of increasing financial profits by maximizing operational efficiency and reducing costs (Vargo, Lusch, & Akaka, 2010). Since its origins in the 1950s, goods-dominant logic has established its dominant status in economics and other business-related disciplines (Vargo & Morgan, 2005), including management, marketing, and information technology. Goods-dominant logic uses terms like goods and services, transaction, value-added, value-in-exchange, price, supply chain, asymmetric information, promotion/propaganda, maximizing behavior, operand resources, and resource acquisition (cf. Vargo & Lusch, 2014).

In contrast, service-dominant logic proposes a service-for-service exchange in which “service” is the fundamental basis of exchange (Vargo & Lusch, 2008a). It views value creation as a collaborative process between multiple parties. The language of service-dominant logic describes phenomena associated with value co-creation processes, including serving and experiencing, relationship and collaboration, value co-creation, value-in-context, value proposing, value-creation network operant resources, symmetric information flows, open-source communication, learning via exchange, operant resources, and resourcing (cf. Vargo & Lusch, 2014).

The difference between service-dominant logic and goods-dominant logic becomes apparent through three keywords: goods, services, and service. Goods are characterized as tangible, defined in terms of a unit of output. Services can be viewed as a counter to goods, referring to intangible output, with the characteristics of intangibility, heterogeneity, inseparability, and perishability (Zeithaml, Parasuraman, & Berry, 1985). Goods-dominant logic contains both goods and services, and in this system, goods are considered ideal, as they can be standardized, produced, stored, and inventoried, while services comprise intangible units of output that add economic value to goods (Spohrer, Vargo, Caswell, & Maglio, 2008). However, service is defined differently in service-dominant logic, where service is “the application of competences, knowledge, and skills for the benefit of another entity (Vargo & Lusch, 2008b). Service-dominant logic is based on the premise that service is the fundamental basis of exchange; service is exchanged for service. This perspective illustrates a shift from emphasizing production and consumption toward the notion of value co-creation in complex, interactive, and resource-integrating networks (Lusch, Vargo, & Tanniru, 2010).

Clarification of Service-Dominant Logic

Service-dominant logic is important and influential, but also controversial. Service marketing has recently embraced the service-dominant logic model, a new paradigm for both academics and practitioners. Vargo and Lusch have dozens of publications on the theory, which they promote as an evolutionary shift welcoming research collaboration. Some of Vargo and Lusch’s critical works include “Evolving to a New Dominant Logic for Marketing” in *Journal of Marketing* (Vargo & Lusch, 2004a); “Service-Dominant Logic: Reactions, Reflections and Refinements” in *Marketing Theory* (Lusch & Vargo, 2006a); “Service-Dominant Logic: Continuing the Evolution” in *Journal of the Academy*

of Marketing Science (Vargo & Lusch, 2008a); “Advancing Service Science with Service-Dominant Logic” in *Handbook of Service Science* (Vargo et al., 2010); “Inversions of Service-Dominant Logic” in *Marketing Theory* (Vargo & Lusch, 2014); and two books, *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions* (Lusch & Vargo, 2006b) and *Service-Dominant Logic: Premises, Perspectives, Possibilities* (Lusch & Vargo, 2014). Although the lexicon of service-dominant logic has been clarified, revised, and refined during its 10-year development, some concepts retain a fundamental status as foundational premises. Generally, service-dominant logic emphasizes operant resources (knowledge and skills) as the fundamental source of competitive advantage and customer-defined and co-created value, as well as two-way communication with customers and relationship management (Merz, He, & Vargo, 2009). Operant resources distinguish service-dominant logic from goods-dominant logic. Value co-creation is the core of service-dominant logic, which uses collaboration to realize the value co-creation process.

Resource theory in service-dominant logic: Operant resources vs. operand resources. Resource theory plays a critical role in understanding service-dominant logic and the relationships within and among service systems. The resource-advantage theory (Hunt & Morgan, 1995) is one of the fundamental theoretical frameworks supporting service-dominant logic. This theory proposes that heterogeneous and imperfectly mobile resources meet heterogeneous demands in the market. Resources can be divided into operand resources and operant resources. Operand resources, or material resources, which include such resources as land, plants, animals, and minerals (Vargo & Lusch, 2004a) are critical to goods-dominant logic. They are characterized as “inhuman,” “machine-like,” “basic,” “functional,” “physical,” or “tangible” (cf. Campbell, O’Driscoll, & Saren, 2013). Operant resources, or invisible and intangible resources, are more critical to service-dominant logic. Intangible resources have been described as typically “human” (e.g., the skills and knowledge of individual employees), “organizational” (e.g., controls, routines, cultures, competences), “informational” (e.g., knowledge about market segments, competitors, and technology), and “relational” (e.g., relationships with competitors, suppliers, and customers) (Hunt, 2004, p. 22). Operant resources are characterized as “dynamic” and “infinite” compared to the “static” and “finite” operand resources. (Vargo & Lusch, 2006).

The resource-based theory has also been advanced in the service context by service-dominant logic. First, service-dominant logic expands the focus of resources beyond the company to service systems ranging in size from an individual to the global economy (Lusch & Vargo, 2006b). In a service system, the customer is considered to be an operant resource “capable of acting on other resources, a collaborative partner who co-creates value with the firm” (Lusch, Vargo, & O’Brien, 2007). In this context, the customer must be included as a participant for value co-creation, enhancing customer-centered concepts such as customer engagement. In addition to customers, employees and other stakeholders are also operant resources that may achieve co-created value. Moreover, the resource-based approach to competitive advantage is integral to service-dominant logic. Service-dominant logic differentiates resources based on their ability to generate competitive advantage. Both operant and operand resources are inputs in the value-creation process, helping to achieve competitive advantage and economic growth. Service-dominant logic also clarifies the relationship between operand resources and operant resources. In service-dominant logic,

the relationship between these two types of resources is hierarchical and one-way; operant resources (e.g., skills, knowledge, human ingenuity) are viewed as more important than operand resources (e.g., raw, inert, material resources) (Vargo & Lusch, 2008a). Specifically, operant resources are the fundamental source of value and drivers of value creation, while operand resources must be acted on to be beneficial (Vargo & Lusch, 2004a). Generally speaking, contemporary marketing is undergoing an evolution from operand resource-based goods-dominant logic to operant resource-based service-dominant logic (Vargo & Lusch, 2004a).

Value-related concepts in service-dominant logic. The importance of value creation is increasingly accepted by marketing academics and practitioners. Service-dominant logic provides a perspective on value creation for businesses and marketers. The first key concept is value co-creation. In service-dominant logic, value is no longer embedded in units of output or exchange, as in goods-dominant logic. Instead, value is co-created in service systems, which engage in three important activities: proposing value, accepting a proposal, and realizing the proposal (Spohrer et al., 2008). Specifically, value is created by customers, while organizations can realize the value-creating process by providing relevant resources. According to Lusch and Vargo (2006a), value co-creation consists of two components: “co-creation of value” and “co-production.” According to service-dominant logic, value can only be created with and determined by the user in the “consumption” process. Co-production involves the consumer’s participation in the creation of the core offering itself. Generally speaking, value co-creation is the ultimate goal and driver of interaction, relationship development, and exchange (Spohrer et al., 2008).

Another critical concept is value-in-context, expressed by the 10th foundational principle of service-dominant logic: value is always uniquely and phenomenologically determined by the beneficiary (Vargo & Lusch, 2008a). Context and perspective are critical to value determinations in service-dominant logic. Value-in-context draws attention to time, place, and network relationships to determine the meaning of value. Thus, the marketer not only needs to focus on the internal factors of service systems (e.g. customers, employees, companies), but must also pay attention to external and uncontrollable factors (e.g. time, weather, laws) (Vargo et al., 2010).

Collaboration in Service Systems. Collaboration plays a central role in the service-dominant logic framework, as it leads to successful resourcing in service systems, “which always involves human knowledge and ingenuity” (Lusch et al., 2008). The service system refers to “value co-creation configuration of people, technology, and value propositions connecting internal and external service systems and shared information” (Maglio & Spohrer, 2008, p. 18). The service system survives and develops through mutually beneficial interaction and integration of resources within and between service systems (Vargo, Maglio, & Akaka, 2008). It requires the collaboration of customers, companies, and other stakeholders to realize the process of value co-creation, mainly by exchanging operant resources through interaction, dialogue, and coordinated communication (Tynan & McKechnie, 2009).

This communication is quite different from the linear, one-way, mass communication used in traditional economics, business, and marketing. It is a new, two-way communication, centered on the idea of conversation: customers are communicated with, rather than promoted to. Service-dominant logic aims develop ongoing communication processes or dialogs (Vargo & Lusch, 2004a). Communication is the core of social interaction and plays a critical role in transferring information between different actors, such as customers and providers, in service systems (Edvardsson, Tronvoll & Gruber, 2011). Additionally, the actors in service systems establish institutions (e.g. norms, rules, symbols) for collaboration, facilitating the value co-creation process. The actors in service systems co-create value by integrating resources and collaboratively exchanging services. This collaboration can happen both within and between service systems.

Foundational Premises in Service-Dominant Logic

The foundational premises (FPs) of service-dominant logic have been revised, elaborated on, and extended from the original eight FPs (Vargo & Lusch, 2004a) to nine FPs (Lusch & Vargo, 2006b), then 10 FPs (Vargo & Lusch, 2008a), and recently concentrated to four FPs (Vargo & Lusch, 2014) (Table 1).

Table 1: The Development of Foundational Premises in SDL

FPs	Vargo & Lusch (2004a); Lusch & Vargo (2006b)	Vargo & Lusch (2008a)	Vargo & Lusch (2014)
1	The application of specialized skills and knowledge is the fundamental unit of exchange.	Service is the fundamental basis of exchange.	Service is the fundamental basis of exchange.
2	Indirect exchange masks the fundamental unit of exchange.	Indirect exchange masks the fundamental basis of exchange.	
3	Goods are distribution mechanisms for service provision.	Goods are distribution mechanisms for service provision.	
4	Knowledge is the fundamental source of competitive advantage.	Operant resources are the fundamental source of competitive advantage.	
5	All economies are services economies.	All economies are service economies.	
6	The customer is always a coproducer.	The customer is always a cocreator of value.	The customer is always a cocreator of value.
7	The enterprise can only make value propositions.	The enterprise cannot deliver value, but only offer value propositions.	
8	A service-centred view is customer oriented and relational.	A service-centred view is inherently customer oriented and relational.	
9	Organizations exist to integrate and transform microspecialized competences into complex services that are demanded in the marketplace.	All economic and social actors are resource integrators.	All economic and social actors are resource integrators.
10		Value is always uniquely and phenomenological determined by the beneficiary.	Value is always uniquely and phenomenological determined by the beneficiary.

In 2006, Vargo and Lusch added a ninth foundational premise (FP9): “Organizations exist to integrate and transform micro-specialized competences into complex services that are demanded in the marketplace.” In 2008, the authors reconceptualized most of the foundational premises into 10 new FPs. Later, the authors condensed these 10 FPs into four axioms (FP 1, 6, 9, and 10), from which the other FPs could be derived.

FP1 has always been the most basic premise of service-dominant logic, stating that service is always exchanged for service; service is the fundamental basis of exchange. In 2008, the principle of the “application of specialized skills and knowledge” was replaced by the concept of “service” (Vargo & Lusch, 2008a). Even though “skills and knowledge” represent the operant resources, Vargo and Lusch still believe the “unit of exchange” is implicitly related to goods-dominant logic. Thus, service is a value creation process, which better expresses the meaning of “application of specialized skills and knowledge.” service-dominant logic implies that all economies are, in reality, service economies. “Goods” means the appliances or distribution mechanisms used to facilitate the provision of service benefits (Lusch & Vargo, 2006b; Vargo & Lusch, 2004a). As the authors always highlight, service is exchanged for service and service is the basis for all exchange. Thus, FP1 is considered one of the four axioms (Vargo & Lusch, 2014).

Similarly, the word “unit” has been changed to “basis” in FP2, as “unit” can be easily associated with the input and output concepts of goods-dominant logic. The final wording of FP2 is: “Indirect exchange masks the fundamental basis of exchange.” The service basis of exchange is not always apparent, as service is provided through complex combinations of goods, money, and institutions (Vargo & Lusch, 2008a). There has been no change in FP3: “Goods are distribution mechanisms for service provision.” This means goods (both durable and non-durable) derive their value by using the service they provide (Vargo & Lusch, 2008a). The original statement of FP4 was, “Knowledge is the fundamental source of competitive advantage.” In the final wording, “operant resources” is used instead of “knowledge.” Vargo and Lusch made this revision in 2008 to clarify the concept of operant resources, which encompass both knowledge and skills. According to FP4, a comparative ability to cause desired change drives competition (Vargo & Lusch, 2008a). In FP5, “services” has been changed to “service”: “All economies are service economies.” The difference between these two words has been discussed previously. “Services” can be viewed as an alternative form to goods in goods-dominant logic, while “service” refers to a process of using one’s resources for the benefit of another entity. Service (singular) is now becoming more prevalent due to the increased specialization and outsourcing present in the modern business world.

A revision to FP6, also one of the four axioms, replaced “co-producer” with “co-creator,” leading to the statement, “The customer is always a co-creator of value.” “Co-producer” is related to the goods-dominant logic lexicon, as production refers to making units of output. Service-dominant logic, on the other hand, emphasizes the collaborative nature of value creation, so the customer is instead a “co-creator,” implying that value creation is interactional (Vargo & Lusch, 2008a, 2014). The change in FP7 is due to a misinterpretation of the simple statement: “The enterprise can only make value propositions” (Vargo & Lusch, 2004a). The new statement, “The enterprise cannot deliver

value, but only offer value propositions,” highlights that enterprises cannot create and/or deliver value independently. The value creation process is never unilateral; it requires collaboration from both offerer and beneficiary. FP8 states, “A service-centered view is inherently customer-oriented and relational” (Vargo & Lusch, 2008a). The added word “inherently” highlights the importance of customer orientation, as value is always determined by the beneficiary of service. FP9, one of the four axioms, is simplified with abstract language: “All economic and social actors are resource integrators” (Vargo & Lusch, 2008a, 2014). The word “actors” replaces “organizations,” because the category of “actors” includes not only organizations, but also individuals and households. This change expands the scope of resource integration and indicates that all economic entities are resource integrators. Service-dominant logic claims that value-creating resources are not limited to the company; customers, suppliers, and other stakeholders also constitute operant resources (Vargo & Lusch, 2008a). The newly added FP10 is another of the four axioms (Vargo & Lusch, 2008a, 2014). It is directly related to the concept of “value-in-context,” as it argues that “value is always uniquely and phenomenologically determined by the beneficiary.” The use of “phenomenologically” rather than “experientially” is partly due to the fact that the term “experience” has been so widely and loosely used, which can often lead to confusion. FP10 claims that value is idiosyncratic, experiential, contextual, and laden with meaning (Vargo & Lusch, 2008a, 2014).

Strengths and Weaknesses of Service-Dominant Logic

Strengths. Service-dominant logic provides a strong framework that can cover a wide range of issues in service marketing; it also has the potential to expand the depth and breadth of service research over the long term. Many researchers have contributed to service-dominant logic in the past 10 years, including its originators, Vargo and Lusch, and service-dominant logic still contains many promising issues for future research. Vargo, Lusch, and their coauthors have not only tried to clarify and refine the core concepts of service-dominant logic and their influence on service science and service management, but have also applied it to specific issues, such as customer integration (Vargo, 2008), relationship marketing (Vargo, 2009), supply chain management (Lusch et al., 2010; Lusch, 2011), and service innovation (Lusch & Nambisan, 2012).

Service-dominant logic is important to service managers and practitioners because it not only portrays the dynamic activities in service-dominant economies, but also broadens the context of service marketing by transforming traditional management issues into a focus on service. For example, the traditional company–customer relationship has been extended to dynamic “value-creation networks” (Lusch et al., 2008) by the incorporation of operant resources. Within the network, the customer is viewed as an operant resource that participates in collaborating and co-creating value through the application of specialized competencies (knowledge and skills) for the benefit of other actors. Thus, the role of the company is not to provide or deliver value, but to identify, develop, and provide value propositions to the customer. Service-dominant logic allows the company to reassess customers’ contributions to value-creation processes; this perspective is neglected in goods-dominant logic. All the actors in the service systems in service-dominant logic play a different role based on the R-A theory: service-dominant logic highlights customers,

employees, and the environment as operant resources, viewing them as endogenous instead of exogenous to the value creation process. Thus, the competencies of all actors are critical components of competitive advantage (Lusch et al., 2007). This perspective benefits companies, as they can use both the tangible, limited operand resources and the intangible, unlimited operant resources. Service-dominant logic distinguishes itself from alternative logics in service management by expanding the scope of resources, enhancing the value creation process, and facilitating collaboration within and between service systems.

Weaknesses. In academic research, service-dominant logic has been subject to criticism, just like all other new concepts or ideologies. The first criticism raised regards the status of service-dominant logic in service marketing. Vargo and Lusch have long argued for the adoption of service-dominant logic in both marketing practice and education, and suggest using a single unitary perspective. However, critics suggest that it is more important to embrace multiple perspectives, together with the methodological pluralism this implies (O'Shaughnessy & O'Shaughnessy, 2009, 2011). O'Shaughnessy and O'Shaughnessy (2009) consistently reject service-dominant logic and have worked to prevent its adoption, which they view as a backward step. They argue for the use of different lenses to achieve a multifaceted understanding of marketing issues. Interestingly, Vargo and Lusch (2011) have actively responded to the criticism, suggesting service-dominant logic is an open-source evolution; it is a pre-theoretical framework, intended to assist theory construction. This debate springs from a lack of consensus on the ontology, epistemology, and methodology of service research.

Another criticism is concerned with the relationship between operand resources and operant resources. In service-dominant logic, the operant resource is judged superior to the operand resource, as it is the fundamental source of value and driver of value creation. The critics agree that operant resources are indispensable, but they claim that the preference for operant resources over operand resources is not helpful. Furthermore, the application of operant resources is criticized as being too abstract to be useful in management practice. Campbell et al. (2013) assert a different relationship between these two types of resources. They claim that operant resources are in a “mutual entanglement” with operand resources, rather than the hierarchical relationship promoted in service-dominant logic. They claim that because operant resources cannot act alone, these two types of resources must be integrated to become valuable for actors.

The third criticism is associated with the value issue in service-dominant logic. Plé and Chumpitaz (2010) assert that service-dominant logic has concerned itself too much with value co-creation while neglecting its counterpart: value co-destruction. In service systems, “value co-destruction is an interactional process between service systems (limited here to the firm and its customers) that results in a decline in at least one of the systems’ well-being” (Plé & Chumpitaz, 2010). The authors also state that value can be co-destroyed through the interactions between different service systems. Future research may call for more investigation of the downside of interactive value formation.

Grönroos (2011) suggests that value creation in service-dominant logic warrants more systematic consideration, especially regarding the wording of FP6: “The customer is

always a co-creator of value" (Vargo & Lusch, 2008a). Grönroos (2011) argues that the word "always" is misleading, as value is only co-created when customer resource integration happens within interactive service processes. Service-dominant logic is an open and evolving perspective that still needs more investigation by researchers and practitioners of service marketing.

The Impacts of Service-Dominant Logic on Service Management

The introduction of service-dominant logic has significantly influenced the development of marketing over the last 10 years, not only by triggering an increasing interest in academic circles, but also by breaking the once-dominant goods-dominant logic paradigm. Service-dominant logic will continue to shape service management thinking from both theoretical and managerial perspectives in the future.

Theoretical Influence of Service-Dominant Logic

The main challenge regarding the development of service management is the lack of cohesiveness in research related to service (Chesbrough & Spohrer, 2006). Previous studies of service were conducted in a fragmented manner, split between different disciplines, including management, operations, marketing, and IT (Bitner & Brown, 2006), while also being pursued in engineering and computer science (Chesbrough & Spohrer, 2006). However, the emergence of service-dominant logic provides an instrumental framework to understand the complexity of marketing phenomena. Researchers have argued there has been a shift from goods-dominant logic to service-dominant logic, and service-dominant logic can be a philosophical foundation for the development of service science (Maglio, Vargo, Caswell, & Jim 2009; Vargo & Lusch, 2004a; Vargo et al., 2010). As Maglio and Spohrer (2008) stated, "service-dominant logic might provide just the right perspective, vocabulary, and assumptions on which to build a theory of service systems, their configurations, and their modes of interaction." service-dominant logic expands the scope of service by incorporating value creation and value co-creation, as value is not only provided by companies, but can be dynamic, emerging, and co-created with various actors. As service-dominant logic is an open and evolving perspective welcoming elaboration, refinement, and development (Vargo & Lusch, 2004a, 2008a, 2014), the development of service-dominant logic will continue to facilitate a robust understanding of service management.

Managerial Influence of Service-Dominant Logic

Service-dominant logic suggests a new company–customer relationship and highlights the interactive and collaborative process of value creation. Managers must adjust the role of the company to recognize customers' participation in the value creation process, especially in manufacturing companies. Service-dominant logic emphasizes the centrality of customers and highlights their involvement in design, production, and consumption processes to facilitate value co-creation. One example of this evolving company–customer relationship is the tourism industry's increasing recognition of interactive relationships (Li & Petrick, 2008; Shaw, Bailey, & Williams, 2011). This shift is based on the development of consumer experiences discussed in "experience economy" (Pine & Gilmore, 1999). As customer experiences are at the core of the tourism industry, service-dominant logic provides a conceptual framework for understanding customers' importance to the value co-

creation process. The influence of service-dominant logic will only become more significant with the maturation of the experience economy, especially in the tourism sector. Service-dominant logic is also influencing management education and curricula (Ford & Bowen, 2008). Ford and Bowen (2008) suggest that the traditional silo-structured environment restricts the development of service management. They identified seven key differences between traditional management logic and service-dominant logic, suggesting that service-dominant logic can improve management education. Service-dominant logic will bring a service focus to traditional management topics such as organizational boundaries, supply chain management, human resources, and quality management. Using the service-to-service exchange principle, scholars and educators can examine service activities and develop strategies to support a new company–customer relationship focused on value co-creation.

Future Challenges in Services Management

The world is now becoming characterized by services; many developed countries generate more than 70 percent of their gross domestic product (GDP) from services (Ostrom et al., 2010). The goods sector is shrinking, while the service sector is becoming a key economic differentiator (Rust & Miu, 2006). The growth of the service industry been also been characterized by an explosion in service research. Rust and Miu (2006) have summarized the developments in academic research on service: in the 1970s, researchers began to emphasize the differences between goods and services and tried to understand the unique characteristics of services; the 1980s witnessed the quality revolution and the emergence of related concepts such as service quality measurement, customer satisfaction measurement, and complaint management systems; the 1990s emphasized achieving financially accountable service and gathering more comprehensive customer data through advances in IT; since 2000, research has turned to customer relationship management. The term “service management” was first introduced in Swedish in 1982 and in English in 1984 (Grönroos, 1994) as a response to a strong demand in the business community in the 1980s for new ideas, theories, and models to address critical challenges in the service sector. Grönroos (1990) has documented the shift from scientific management to service management and identified the key characteristics of service management.

Recently, service management has been featured as customer-centered, multidisciplinary, collaborative, multi-method, global concern (Bitner & Brown, 2006; Fisk & Grove, 2010). Researchers have identified several challenges in the literature (Bitner & Brown, 2006; Bitner, Brown, Goul, & Urban, 2008; Fisk & Grove, 2010; Ostrom et al., 2010; Rust & Miu, 2006). The first issue involves collaboration across a wide range of disciplines and perspectives, as well as collaboration between academics and practitioners. The challenge lies in how to motivate faculty and researchers to work across disciplines (Bitner et al., 2008) despite the long-term nature of the efforts required. Ostrom et al. (2010) argue that using an interdisciplinary lens to advance service development is necessary to make significant contributions to the field. They also claim that collaboration across disciplines, despite the difficulty, should be encouraged by the hope of developing new insights, theories, and solutions for service management. Another challenge is semantics (Bitner et al., 2008), or the problem of how to create a common language (Fisk & Grove, 2010) to improve communication across the service research community, as researchers from

different disciplines bring with them different lexicons, assumptions, and constructs (Ostrom et al., 2010). This issue may be gradually solved through deepening collaboration across disciplines, while establishing the paradigm of service management for the future. The final challenge comes from the influence of the manufacturing mindset (Bitner & Brown, 2006), or how to compete using service-dominant logic (Vargo & Lusch, 2004a; Lusch et al., 2007). Implementing service-dominant logic is not simple, as manufacturers face both internal and external barriers. The refinements of service-dominant logic over the past 10 years are slowly aiding in implementation and understanding. There are still other challenges regarding service management, including the application of technology to enhance customer experience and engaging customers in the process of value creation. However, with increasing collaboration between researchers and practitioners using a common language, as well as the adoption of service-dominant logic in practice, service management will witness a promising future.

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The Financial Collapse of the Enron Corporation and Its Impact in the United States Capital Market

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Abstract

The purpose of this article is to review the collapse of the Enron Corporation and the collapse's effect on the United States financial market. Enron Corporation, the seventh largest company in the United States, misguided its shareholders by reporting \$74 billion profit of which \$43 billion was detected as fraud. Moreover, according to the association of fraud examiners \$2.9 trillion was lost because of employee fraud. For example, as presented by Kieso, Weygandt, and Warfield (2013), in a global survey study that was conducted in 2013, it was reported that 3,000 executives from 54 countries were involved in fraudulent financial reporting. Also, Brigham and Ehrhardt (2014), the 11 chapters or provisions of the Sarbanes-Oxley Act of 2002 brought about a new set of rules and regulations to auditors, investor analysts, CEOs, CFOs, and banks conducting business overseas. Therefore, the world of accounting is dominated by the top four accounting firms known as (1). PricewaterhouseCoopers (PwC), (2). Deloitte & Touche (DT), (3). Ernst & Young (EY) and (4). KPMG which represent a combined income of \$80 billion.

Keywords: enron corporation, bankruptcy, corporate governance

The Leading Financial Changed of Revenue Recognition by Business Enterprises under FASB vs. IASB

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Abstract

The purpose of this research study is to provide a relevant position about the emergence and adoption process of the revenue recognition project under Financial Accounting Standard Board (FASB) and International Accounting Standard Board (IASB) and its crucial financial reporting performance by business enterprises. In 2014 the Financial Accounting Standard Board (FASB) developed a conceptual framework in relation to the joint revenue recognition project. As a result, the Financial Accounting Standard Board (FASB) in an early announcement this year stated that the revenue recognition project will take place as early as 2015 as noted by Lemus (2014). However, the revenue recognition project will change its reporting perspective from historical cost value to fair value measurement. For example, the International Accounting Standard Board (IASB) noted that more than 95% of Small and Medium-sized Entities (SMEs) are allowed to use EFRS. Therefore, it is expected (as cited in Kieso, Weygandt, & Warfield, 2013) that the optional adoption process of International Financial Reporting Standards (IFRS) in the United States will take place as early as 2017.

Keywords: FASB, IFRS, SME

The Italian Food Sector Future Growth in Thai's Market

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Abstract

The purpose of this article is to explore recent existing trends of opportunities in launching a new product in Thai's market such as Italian Pasta. In addition, Bella Pasta Italiana is a fictitious company that introduces a SWOT analysis in the literature review that discusses, in depth, the main strategies of Bella Pasta Italiana doing business in Thailand. Moreover, Bella Pasta Italiana will adopt a marketing mix business strategy proposed by Griffin and Pustay (2015). The Association of Southeast Asian Nations (ASEAN) is willing to connect and expand the commercial channels with Thailand's neighboring countries by investing \$72 billion. Also, Bloomberg Businessweek (2014) reported that Thailand's geographical position is superb because Thailand has 10 international airports, 6 commercial seaports, 12 ASEAN highways, and 33 Border Connections. Furthermore, from 2013 to 2020, the government of Thailand is willing to invest \$67 billion in the country's logistical infrastructure system (U.S. Commercial Service, 2014).

Keywords: international, environment, asean



Visionary Hospitality Industry Marketing to Achieve Customers' Desires

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Abstract

To gain a solid understanding of innovative hospitality industry marketing, 25 questions representing visionary marketing ideas and 7 demographic questions are presented in the form of how to expedite the ideas. Survey results feature easy-to-reference charts from highest to lowest n and percentages of specific operational ideas, including dining room, beverage areas, pool side, golf course, parking lots and banquet room locations. The objective of the survey research is: To identify and analyze new hospitality (hotel, restaurant, resort and/or country club) products, services and activities resulting in offering customers what they want. Endeavors to build customer relationships when determining the activities are described. How to integrate the marketing ideas into operational business, marketing, management, sales and/or hospitality planning to gain business savvy is reviewed.

Keywords: creativity, organizational development, customers, buyers, shoppers, needs, consumer satisfaction, consumer attitudes, innovative marketing

What it Means to be a Monetarist

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Abstract

The pioneer of Monetarism is M.Friedman and other notable Monetarists are Karl Brunner, and his student, later colleague Allan Meltzer and other less known economists. But M.Friedman stands out. He was an early critique of Keynes and leaned towards traditional Classical and Neo-Classical macroeconomic system. In 1956, he had published his famous "Quantity Theory – A Restatement" in his studies in Quantity Theory of Money (Chicago). Later, in 1963 he published along with David Meiselman "The Relative Stability of Monetary Velocity and the Investment Multiplier in the US 1897-1958" in which study showed that the classical velocity of money was a more stable parameter for the time studied compared to the Keynesian multiplier. This was a powerful attack on Keynes. Later, the New Keynesians, however, used the same data with different lags and proved the reverse, that is, the Keynesian Multiplier was more stable than monetary velocity of money. All throughout the '50s and '60s Friedman's voice was a minority because Keynes was very much in vogue both in academic circles and among practitioners, consultants and policy formulators.

Keywords: monetarism, monetarist policies, short run Phillips curves, vertical long run Phillips curve, natural rate of unemployment, adaptive expectations

Introduction

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Demand for Money and Supply of Money

M.Friedman offered a Demand for Money equation which was more general compared to Keynes but which, however Classical Theory as follows:

$$M^d = (r_B, r_E, r_D) \cdot P \cdot y$$

M^d : Money Demand in nominal terms

r_B : interest rates on Bonds (Keynesian)

r_E : interest rates yielding for Equities

r_D : interest rates yielding for Durable Goods

Supply of Money (M) was given, determined by Monetary Authorities, hence an exogenous variable. So we have:

$$M = M^d = k(r_B, r_E, r_D) \cdot P \cdot y$$

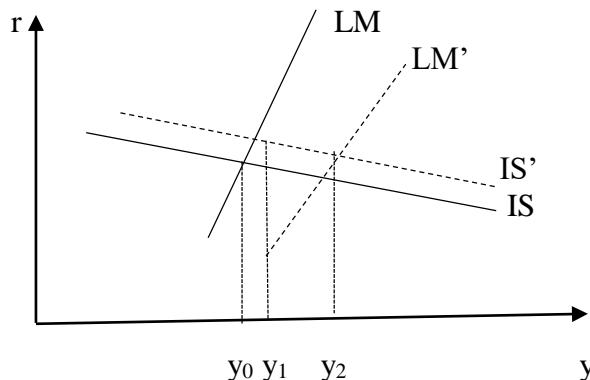
And as a short cut and in a more strict Classical form we had:

$$P \cdot y = \frac{1}{k} \cdot M \quad (\text{as in the Cambridge Equation: } M = k \cdot P \cdot y)$$

M.Friedman allowed M^d as a function of "r" as well as "y", however, with the basic difference that the negative interest elasticity of Money Demand being smaller than 1, ($-ie_{M^d} < 1$).

IS-LM Analysis for Monetarists

This gave us a rather steep LM curve while Friedman visualized an elastic IS curve as in diagram below.



Choosing the Right Economic Policy

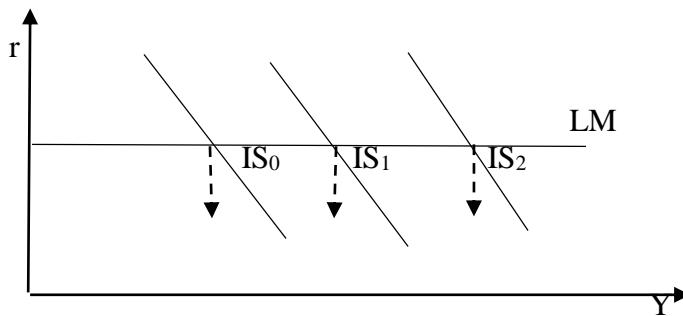
Under these conditions, obviously, as M. Friedman argued fiscal policy is not effective in raising the y and N while monetary policy is effective. However, that according to Friedman, this effectiveness is only for the Short Run (SR) and in the Long Run (LR) any increase in M_s would only result in an increase of the Prices (P) only as is the Traditional Classical Quantity Theory.

The Drawbacks of Fiscal Policy

According to M.Friedman there are other reasons why fiscal policy has drawbacks. For example, if we raise government expenditures (g), then, as a result, the interest rate (r) would go up creating a crowding-out effect for private investments, if we decrease $t(y)$, on the other hand, then of this decrease in $t(y)$ is considered temporary, accordingly. The consumption analysis of M.Friedman which divides income into "permanent income" and "transitory income" components and the decrease in $t(y)$ would have at any rate a very

small effect on the consumption expenditures (c) even if it is deemed permanent. For an analysis of the overall behavior in the LR and SR of the consumption function and theories offered by Duesenberry, Friedman and Modigliani as opposed to the Keynesian “absolute income hypothesis” one refer to as an example, Branson, while a short explanation is given in Hiç.

In comparing his assumption of a steep LM curve as opposed to the Keynesian nearly horizontal LM curve with a high – $L_e r$, M.Friedman explains that M^s was increased by monetary authorities in order to keep the interest rate constant. This gave the mistaken conclusion that LM was horizontal, monetary policy, hence, was ineffective and fiscal policy was effective as in diagram below.



The Best Monetary Policy

For Friedman, we should underline here the effectiveness of monetary policy, which is, raising y and N by increasing M_s which is valid only for the SR. This is explained by M.Friedman's analysis of SR vs LR Phillips Curve and the assumption of “adaptive expectations” on the part of workers with respect to future price rises. With this analysis, Friedman won the Nobel Prize. We shall analyze this along with Friedman's concept of “natural rate of unemployment” (nru) in detail, at a later stage, but this analysis leads to the conclusion that in the LR, an increase in the quantity of money would have no effect on y and N , it would only raise P while the economy will return to nru. Thus, in the LR, the Classical conclusion of Neutrality of Money holds true. M.Friedman, therefore, concludes that the best monetary policy would be the one, in which monetary authorities should raise M^s at a constant rate which is approximately equal to the yearly increase in the overall productivity of the economy. For he believes and shows that, in the past, business cycles arose mainly because of wrong monetary policies followed, such as, overblown monetary expansions followed by monetary contractions. The policy recommendation is again similar to the Traditional Classical School, so is the explanation of the “business cycles” based on erratic M_s policies followed by monetary authorities (e.g. A. Marshall, Hawtrey). The policy formulation of a constant increase in Money Supply in the litmus test for monetarists as opposed to some of the more modern times Keynesians who rely mainly on monetary policy and not fiscal policy.

The Effectiveness of Monetary Vs Fiscal Policies for Monetarists

A broad, perspective offered with the aid of LM and IS has lead us to the conclusion that due to different elasticity of the LM curve, monetary policy was ineffective and fiscal policy was effective during the depression periods (i.e., low income ranges). While monetary policy was effective and fiscal policy was ineffective in the high income ranges

which means that a broader Keynesian policy interpretation should as follows. In order to fight depression we should of course use fiscal policy as recharged by Keynes. But if a recession occurs during a period of high income level then the proper or effective policy is monetary policy and not fiscal policy. This is mostly the present situation in the developed economies. To fight inflation, on the other hand, in theory, both fiscal policy and monetary policy could be effective. But for practical and political reasons monetary policy is used instead of fiscal policy. There are several reasons for it. First of all, fiscal policy has to pass through the parliament, which takes time and the final policy recommendation coming out from political organs could end up being distorted as well. Furthermore, if we start with a low $t(y)$, then it becomes politically very difficult to raise it. Raising or lowering "g" on the other hand, would also bring about lots of political discussions on what project and what region this increase would go. Therefore, the general tendency today, even for Keynesians, is to use monetary policy and not fiscal policy. But, it should be remembered the litmus test Keynesians advocate that M_s should be increased whenever we meet with recession and it should be decreased, that is, the rate of increase of M_s should be decreased if we have inflationary tendencies in the economy. In contrast, Monetarists (Friedman) advocated a constant increase in M_s whatever prevailing economic conditions with the belief that this is the best way to stabilize the economy, that is, to prevent business cycles and stimulate growth with price stability over the LR.

In analyzing fiscal policy and reaching the conclusion that it is ineffective, Friedman underlines that we should not take the case of increasing "g" along with a budgetary deficit which is financed by increase in M_s because this would be a combination of fiscal and monetary policy and in the SR, of course, monetary policy would be effective giving the wrong impression that increasing "g" is effective. Therefore, according to Friedman, the effectiveness of fiscal policies can be studied only when the increase of "g" and budgetary deficit is financed not by any increase in money stock but by selling government bonds

Conclusion

To recapitulate the above, the main characteristics monetary propositions can be summarized as below.

- 1-The Supply of Money is the dominant influence on nominal income.
- 2-In the LR, the influence of Money is primarily on the Price level and other nominal magnitudes. In the LR, real variables, such as real output and employment, are determined by real, not by monetary factors.
- 3-In the SR, the Supply of Money does influence real variables. Money is the dominant factor causing cyclical movements in output and employment.
- 4-The private sector of the economy is inherently stable. Instability in the economy is primarily the result of government policies.

From these four propositions we will see that there follow two policy conclusions.

I-Stability in the growth of the Money Stock is crucial for stability in the economy. The Monetarists believe that such stability is best achieved by adopting a rule for the growth rate in the Money Stock. M.Friedman has long proposed a constant Money growth-rate rule. Other Monetarist favor less inflexible rules, but Monetarists generally favor rules rather than the discretion of policy makers for determining Money growth.

II-Fiscal policy, by itself, has little-systematic effect on either real or nominal income.
 Fiscal policy is not an effective stabilization tool

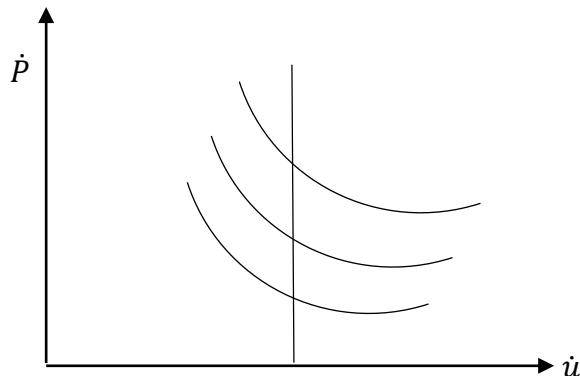
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Appendix

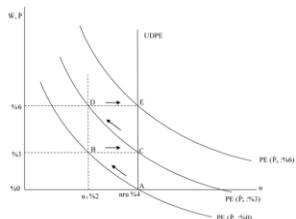
"NRU", LR and SR "Phillips Curve" and "Adaptive Expectations":

During the 70's most of the western economies was thrown into a tumult mainly because of the effects of price rises the ensuing stagflation, which is, cost inflation along with a decrease in y and N which was also accompanied by serious budget of payment (BOP) problems as well. Thus for the year '70s, the data failed to give a regular negatively shaped Phillips Curve. Instead we had a vertical line over the LR with also shorter period negative curves. Schematically it is given as below:



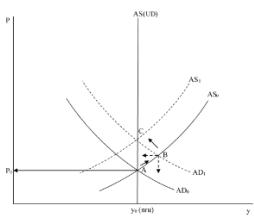
This inspired M.Friedman to make a distinction of a vertical P.C. with several SR negatively sloped P.C.'s. To this Friedman added two more novel concepts. One is the "nru", and M.Friedman hypothesized that the LRPC would be vertical at nru. Theoretically, Friedman explains nru as that level or rate of unemployment at which prices would be stable and any deviation and attempt to decrease unemployment below nru would give rise to increase in prices. The negatively sloped SRPC's on the other hand, is explained by M.Friedman with his concept of "adoptive expectations". According to M.Friedman, workers would tend to make mistaken price predictions, that is, price expectations just as Keynes had assumed. But according to M.Friedman, this is only for the SR. In the LR, the workers would correct their price expectations and hence SRPC will shift upwards, because workers will raise their nominal wage to catch up with the increase in the price level. Thus the economy would go back to the nru again except that we should now have a higher price level prevailing. This is the basic reason why the effectiveness of monetary policy in raising y and N , i.e., in reducing unemployment, is only valid for the SR, but in the LR, the Classical Quantity Theory result will prevail, we will be back on the nru with the increase in M_s increasing only the nominal variables with no effect on the real variables.

This analysis is depicted in the diagram below. Under the simplifying assumption that we have no productivity increases in the economy over time so that any increase in the nominal level is equal to an increase in the price level.



In this analysis by M.Friedman, it should be noticed that instead of the Classical and Neo-Classical full-employment equilibrium point, we have the concept nru to which the economy will automatically return in the LR. But nru creates both theoretical and empirical problems. The theoretical problem is that as Solow pointed out it is a very vague concept because the definition is that it is that point which, if we want to leave and raise y and N , we should meet with an increase in costs and prices. So it is a very vague general condition. The empirical problem with nru is that when a change occurs in the unemployment rate of an economy, it is impossible to pin point it as a temporary or SR change in unemployment or else as a permanent shift of the nru.

The above analysis by Friedman with the aid of LR and SR, PC's is offered below with the aid of AD and AS curves to accompany the above analysis – as diagram below.



Understanding Consumer-Brand Relationship Theory from Value Perspective in Online Community: Using Netnography and Content Analysis

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Abstract

This study aimed to understand and examine the four types of consumer-brand relationships (McAlexander, Schouten, & Koenig, 2002) in online community: customer to customer relationship, customer to product relationship, customer to brand relationship, and customer to company relationship. Meanwhile, as Smith and Colgate (2007) suggested, consumers are seeking for four kinds of values. This study then brought in these customer values to explain how and why consumer-brand relationships are created and strengthened. This study examined the customer-brand relationship theory from value perspective in online community of Blackberry smart phone (<http://forums.crackberry.com/>). Netnography and content analysis were utilized for data collection and data analysis. Data was analyzed by Nvivo 10. This research extended the existing consumer-brand relationship by incorporating the concept of customer value. It was found that relationships in brand community and customer values have different performances and are highly correlated. Consumers are seeking and creating significant values through the four types of relationships; meanwhile, these values strengthen consumers' relationships with the brands. Theoretical and managerial implications were also discussed.

Keywords: consumer brand relationship, customer value, online community, Blackberry smart phone, Netnography, content analysis.

Introduction

A brand community is defined as “specialized, non-geographically bound community, and based on a structured set of social relations among admirers of a brand” (Muniz & O’Guinn, 2001, p. 412). The prevalent trend of the Internet brings in the attentions to online brand communities (OBCs). This trend results in a transition from physical business environment to virtual context. An OBC is a brand community happened in a virtual context which is mainly Internet-mediated (Fuller, Jawecki, & Muhlbacher, 2007). Consumers in an OBC share their interests, knowledge, or passions towards a specific brand through Web 2.0 technology, and these interactions influence the relationship with the brand (McAlexander, Schouten, & Koenig, 2002).

Understanding the formation of consumer-brand relationships is a crucial issue for marketers, as companies can draw huge clues of customer needs, preferences and desires from online brand communities (Brogi, 2014). This paper brought in the concept of customer value to further understand the relationships within OBCs. It aimed to explore

how different types of customer value exit in brand community relationships, as well as the impacts of customer value on these relationships. The research questions include: what is the meaning of an ‘online brand community’ to consumers regarding high-technology brands? How does different kind of customer value exit in the relationships of online high-technology brand community? How does customer value influence customers’ relationships with the brands in the context of online-brand communities?

Literature Review

Relationships are recognized as dynamic multiplex phenomena. The key relationships of brand community have been developed from two-way (customer-brand) (Fournier, 1998) to triad (customer-brand-customer) (Muniz & O’Guinn, 2001), and then further into customer-centric model (McAlexander et al., 2002), which includes four types of relationships: consumer-brand relationship, consumer-product relationship, consumer-company relationship, and consumer-consumer relationship. The development of virtual technology has facilitated the new form of brand community, which is recognized as online brand communities (OCBs). In OCBs, consumers can build relationships through virtual connections, and share contents and interests easily than ever before (Fournier & Avery, 2011). Through individual and collaborative efforts, OBCs provide an environment for value co-creation (Schau, Muniz, & Arnould, 2009) among different relationships.

Customer value is defined as what customers get (e.g. benefits, quality, worth, utility) from what they pay (e.g. price, costs, sacrifices) by scholars (e.g. Zeithaml, 1988). Many relevant concepts have been developed in the research of customer value, such as perceived value (Zeithaml, 1988), value co-creation (Vargo & Lusch, 2004, 2010), value-in-context (Vargo & Lusch, 2008). Furthermore, Smith and Colgate (2007) identified four major types of customer value provided by companies: functional and instrumental value, experiential and hedonic value, symbolic and expressive value, and cost and sacrifice value.

However, little research has been done on what kind of value to be created, when and how these values are created (Smith & Colgate, 2007). Brand communities are suggested as a good place to solve these problems, as they are the site for various value creating activities (Schau et al., 2009). Brand-community members are motivated to “a process of collective value creation” (Schau et al., p. 30), such as social networking, community engagement, impression management, and brand use. This paper examined the customer value in OBCs’ relationships, and extended the conceptual underpinning of brand community theory.

Research Design

Research Context

The BlackBerry is a smart phone designed and marketed by *BlackBerry Limited*, formerly known as *Research in Motion Limited* (RIM). The research context is Blackberry online community. Within this strong brand context, this study examined the consumer-brand relationship and customer values in Blackberry OBC. The Blackberry consumer website <http://forums.crackberry.com/> was explored. This website includes 11 forums with 68 sub-forums, including *Popular at Crackberry* (4), *Crackberry Community* (5), *Blackberry 10 Hub* (14), *Blackberry Playbook Forums* (4), *BBM Central* (9), *Blackberry Os Phone*

Forums (14), *Blackberry Services & Extras* (3), *Blackberry Carrier Discussion* (5), *Enterprise* (4), *Blackberry Developers Crackberry* (2), and *Com Site Related Talk* (4) (see Table 1). The topic covers products, apps, customers from different regions, BBM, technical issues, etc.

Table 1: BlackBerry Forums at Crackberry.com Statistics

Threads	Posts	Members
773,670	9,681,601	3,934,526

This paper sorted threads by number of replies, and focused on threads from 2013 to 2014 (till March 10, 2014). Considering the research questions, this paper chose the following thread with 126 replies and 3,187 views (retrieved on March 10, 2014):

Is there really any such thing as "BlackBerry Experience"? Or is just a figment of our imaginations.

Research Method

This study used Netnography and content analysis to collect and analyze data through the software Nvivo 10. Qualitative content analysis is defined as “a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (Hsieh & Shannon, 2005, p.1278). Content analysis was utilized as it is a flexible method for analysing text data (Cavanagh, 1997), which is consistent with the analysis of posts. Also, content analysis can “provide knowledge and understanding of the phenomenon under study” (Downe-Wamboldt, 1992, p. 314). Specifically, this paper used directed content analysis suggested by Hsieh and Shannon (2005): the initial coding starts with a theory or relevant research findings. In this research, the initial coding includes two dimensions with eight attributes (see in Table 2). This study aimed to validate or extend conceptually the existing theory.

Table 2: Codes—Two Dimensions with Eight Attributes

Relationships within OBCs	consumer-brand relationship, consumer-product relationship, consumer-company relationship, and consumer-consumer relationship
Customer value	functional/instrumental value, experiential/hedonic value, symbolic/expressive value, and cost/sacrifice value

With the development of World Wide Web, people are more likely to share experience in a virtual context, thus a new qualitative method—Netnography (Kozinets, 2002)—to study people’s mind appeared. Netnography is a variation of ethnography to understand the culture and social interactions in online environment (Bowler, 2010; Kozinets, 2010). There are six steps to follow in Netnography: research planning, entrée, data collection, interpretation, ensuring ethical standards, and research representation (Kozinets, 2010).

For data analysis, this paper imported the transcripts (posts) to Nvivo 10 and created eight predetermined codes (four relationship codes and four customer value codes). The author reviewed all transcripts carefully, highlighted and categorized the text based on the codes. Several functions, such as text search, word frequency, matrix coding in Nvivo were employed for data analysis.

Findings

General Characteristics

A word cloud is generated by using the word frequency tool. This word cloud presents some general characteristics of the keywords used in Blackberry smart phone OBC (see Figure 1). For example, the device aspects (functional value) focus on the use of different models, like bb10, z10 are frequently mentioned. Consumers are also concerned with comparing ISO system with Android, representing by keywords like multitasking, screen, platforms, and keyboard.



Figure 1: Word Frequency in Blackberry Smart Phone OBC

This study also selected and summarized the meaning of some important keywords regarding the customer value in Blackberry smart phone OBC (see Table 3).

Table 3: Keywords regarding the customer value in Blackberry smart phone OBC

Keywords	Count	Percentage	Summary of Meanings
Experience	100	2.06%	Whether the blackberry experience is figment or not.
Different	47	0.97%	Blackberry is different.
Better	17	0.35%	Blackberry is better when comparing with other brands, such as Apple, HTC, Samsung.
Friend	11	0.23%	The connection with other customers is valuable.

*Note: similar words are categorized into same groups, e.g., experience includes experience and experiences.

Customer Brand Relationships within BlackBerry OBC

The four relationships are not equally existed in the Blackberry OBC. The brand community members devote efforts to activities and enhance their relationships with the brand and the community. This study calculated 108 relationships, within which customer to product relationship (76) seems to be dominant, followed by customer to customer relationship (16), customer to brand relationship (11), and customer to company (5) (see Figure 2).

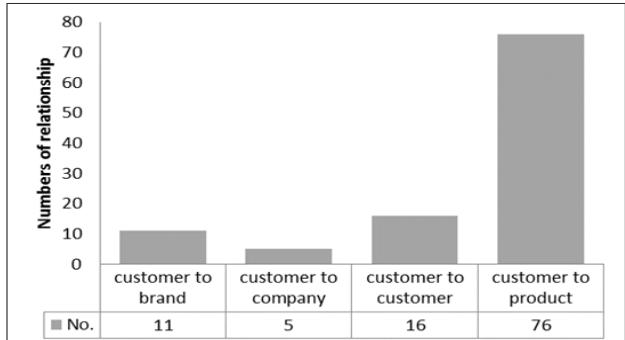


Figure 2: Customer brand relationships in Blackberry OBC

The first relationship, customer-product relationship, is about the feelings toward the product, e.g., love, proud. These feelings are mainly from the function, the experience, and meaning of the product. The blackberry customers are concerned about the Keyboard, BBM, IOS, HUB, and Multi-Tasking, as those words are frequently mentioned.

To me, "The Blackberry Experience" is what makes using a BlackBerry device special for me:

The hub, peek and flow, time shift, the keyboard with predictive text.

For the feeling, blackberry means “security and efficiency”.

I keep showing my colleagues how I can do stuff on my Z10 much more efficiently than iPhone they chose iPhone instead of going Blackberry 10 since our IT was pushing them to do so..... put getting things done before anything elseI have all my travel booked in my calendar and input thanks to blackberry travel.....

The BlackBerry experience is security and efficiency. You don't get the same level of either on other mobile platforms.

The second relationship, customer-customer relationship, refers to that customers find other customers with similar/same experience, feelings, and opinions. The OBC provides an opportunity to connect with others, and this connection enhances the relationship with brand.

I wouldn't disagree but once you get outside of the smartphone obsessive bubble that we live in, that difference is irrelevant to most people - no normal person gives a crap what 'real multi-tasking' is.

So I just checked some videos on the Z2 and I agree with your assessment!! Looks like Sony has really stepped their game up from a year ago!! Very impressive.

The third relationship, customer-brand relationship, describes the connection and meaning which customers attach to the brand, or even the expectation. The customers are debating on whether the “blackberry experience” is figment or not. Customers in this OBC argue that the specific blackberry really exists within brand community, even they use a “technophile” or “99% of smartphone users” to determine the special meaning of Blackberry to customers.

To technophiles, as in fanboys from any smartphone brand following, maybe there is a "Blackberry experience".

To the other 99% of smartphones users, they will never learn about or use many of the features/intricacies between OSes. Other distinctive features they just aren't very passionate about. For them, the "Blackberry experience" does not exist.

Also, these customers try to compare blackberry brand with others, like Apple, Samsung, HTC, etc.

There's one thing we're absolutely clear as a company. There is an experience, a BlackBerry experience that makes it very, very different. That's why there are so many loyalists. In fact, I would think that there are only two brands in the world that have this loyal base. It's Apple and BlackBerry that have it.

The fourth relationship, customer-company relationship, is about how the company understands customer needs and cares customer opinions. Customers believe that company has the responsibility to “behave” in good manner. They also have the goodwill to “push” the company’s development.

.....BlackBerry should be effectively marketing what makes its phones/devices uniquely different from the competition.

The OS is a bit smoother but since that has provided no competitive advantage, that is irrelevant. The main significant change would be hundreds of millions or better billions to put into marketing but that doesn't exist. `

Customer Value in Blackberry OBC

Customers are more concerned with two values: functional/instrument value (56) and experiential-hedonic value (46), followed by symbolic-expressive value (8), and cost-sacrifice value (1) (see Figure 3).

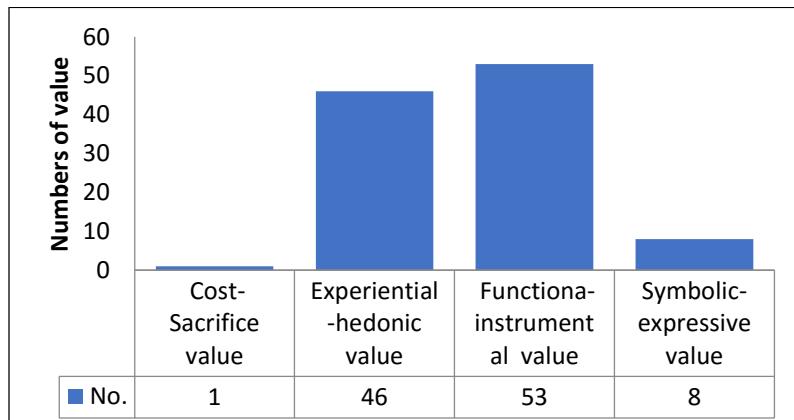


Figure 3: Customer value in Blackberry OBC

Functional/instrumental value “is concerned with the extent to which a product (good or service) has desired characteristics, is useful, or performs a desired function” (Smith & Colgate, 2007, p. 10). This value mainly refers to what blackberry phone has brought to customer physically. From the post, this value includes sending mail, communication with others, the harmony of Software and Hardware, the LED, the apps, the calendar, and the BBM.

Experiential/hedonic value “is concerned with the extent to which a product creates appropriate experiences, feelings, and emotions for the customer” (Smith & Colgate, 2007, p. 10). The customers view blackberry as different from other OS's through security and efficiency.

Symbolic/expressive value “is concerned with the extent to which customers attach or associate psychological meaning to a product” (Smith & Colgate, 2007, p. 10). Customers link the meaning of blackberry to their own life, and they feel confidence and trust to blackberry.

..... On my BlackBerry, it always feels like an emotional attachment, that it is a part of your life that is very dear to you, like a simple Parker pen that was given by someone important.....

Confidence:If I need to tell my family I'm OK after an earthquake, BBM got through (true story) while other phones couldn't (that was before BBM4All).....

Trust:I can connect to unknown video equipment while on a sales call (I carry an HDMI to VGA converter just in case).....

There is only one post related to the cost/sacrifice value, where “.....customers also try to minimize the costs and other sacrifices that may be involved in the purchase, ownership, and use of a product.....” (Smith & Colgate, 2007, p. 13).

The "BlackBerry Experience" is the frustration of watching RIMPIRE try to get back on track and hanging in there while everyone else buys iPhone or DROID flat screen TV and calling it a cell phone. It is when you get your fanboy in an uproar!

Interrelationship between Customer Brand Relationships and Customer Values in OBC

This research identified that there are many overlaps between the concepts of relationships and customer values (see Table 4). Figure 4 shows that value creation practices are commonly observed in these brand community relationships. Specifically, the functional-instrumental value and experiential-hedonic value are highly correlated to customer-product relationship, indicating that customers are concerned more about the product itself. The main value existed in customer-customer relationship is experiential-hedonic value. The main sources of experiential-hedonic value include customer-brand relationship, customer-customer relationship, and customer-product relationship. Managers can create different values in different relationships based on the matrix.

Table 4: Interrelationship between Customer Brand Relationship and Customer Value in OBC

Items	Cost-Sacrifice value	Experiential-Hedonic Value	Functional-Instrumental Value	Symbolic-Expressive Value
customer to brand	1	9	1	0
customer to company	0	2	3	0
customer to customer	0	12	4	0
customer to product	0	23	45	8

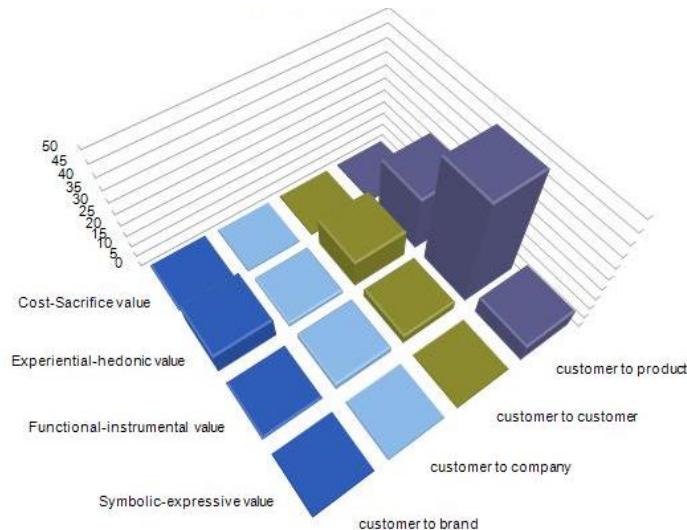


Figure 4: Interrelationship between Customer Brand Relationship and Customer Value in OBC

Conclusion

This study extended the conceptual underpinning of brand community relationship by incorporating four types of customer values. This paper explored the relationships and values in Blackberry OBC, which gives consumers the opportunity to share their experience, feelings, and opinions. It was found that relationships and values have different performances but are highly correlated. Consumers are seeking and creating significant values among the brand community relationships; meanwhile these values strengthen their relationships with the brands.

However, the limitations are twofold. First, this study used the directed content analysis. The main strength of directed content analysis is that existing theory can be supported and extended, while it could also exclude other possibilities. Further research should try conventional content analysis, meaning that the codes are developed from the data, or let the data talk to you. Also, insights can come from comparing the results from both directed content analysis and conventional content analysis. Second, the coding is under strong bias, as only the author determined the coding text category. Future research calls for triangulation of researchers from different aspects.

Finally, this study contributes to two research areas, the relationship marketing in OBC and customer value framework. It brings in insights for developing customer relationship strategy and understanding the meanings of customer values. As different customer values play different roles in brand community relationship, managers should consider what kind of customer values would be more effective and encourage value creating activities through these four relationships.

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Sustainability in Cruise Ship Management

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Abstract

Cruise tourism flourished and became more popular within last decades with the help of technological advancements in shipping industry and classification of tourism branches in general. Cruise-ships help to solve the need for leisure and the need for place to economic business as well as academic gatherings. While it is expanding rapidly, so the concern about the impact of cruise tourism on the environment in general, port economies & their sociocultural atmosphere. Any activities whether it is touristic or daily can be specified under the heading of sustainable or non-sustainable. It all depends if we design activities with respect to the future generations or just live from day to day. The research question is how to design sustainable tourism in general and cruise-ship tourism in particular. Food printing compared to environmental loads of cruise tourism and pollution management will be analyzed. The carrying capacity and its current direction will be studied. After discussing about basic terms, some case studies will be given to picture the problematic of cruise-ship tourism. Later on some comparable solutions will be discussed. Towards to the end some suggestions will be given to make the world livable in the future even there is cruise-ship industry's rapid development.

Keywords: sustainable tourism, cruise-ship tourism, port economies, environmental & sociocultural effects, pollution management.

Introduction

This paper will explore the sustainable tourism practices and the ways to design sustainable cruise tourism. For this aim, environmental and economic effects of cruise tourism will be mentioned. Then the concept of sustainability in cruise tourism will be analyzed in great depth. Waste management and limitations for future research will be given. In the first place the development of cruise tourism and its impact will be mentioned.

Cruise tourism develops basically in the last 40 years. At first Cruise-ship holidays were popular and they were somewhat a kind of luxury for the elite. Whilst twenty years ago the belief was that the days of passenger ships were numbered, their reincarnation as part of the holiday business catering for the high-cost, largely American market, has proved to be one of the few profitable sectors in modern day shipping. With an 8% annual growth since 1980, it has increased at almost twice the rate of tourism overall (Wood, 2000). Simultaneously the idea of sustainable tourism emerges. That is why the principles of sustainability adapted in the cruise industry. There is always room for improvement in sustainable issues. The more we use the cruising service the more we will be aware of the additional problems and want to solve them to make the sector more acceptable and appealing. According to UNWTO Tourism Highlights, 2014 edition between 2003 and

2013 total number of cruise ship beds increased 84.2% (CLIA (Cruise lines International Association) & G.P. Wild International Limited).

The cruise industry generated nearly 115 million passenger and crew visit days at ports around the globe. These consisted of 21.32 million passenger embarkations, 71.8 million transit passenger visit days and 21.75 million crew visit days. European ports accounted for 36% of these while ports throughout North America accounted for 51% of global passenger and crew visit days. (CLIA, 2013). Two thirds of the World cruise passengers get on board in North America. They generally travel to Caribbean and Bahamas.

There are almost 1800 ports for cruise ships and most of them are located in Caribbean & The Bahamas. As a natural outcome Florida is a logical gateway to these destinations. At the same time some other U.S. ports such as Philadelphia, New Orleans, Seattle, Washington, Baltimore, Charleston are also well-known and used for the same purpose. Cruises operate in a very controlled environment. There is an extremely high degree of satisfaction among cruisers, who tend to become repeated customers. (Angelo & Vladimir, 1994).

Cruise ships can also be used as hotels during the mega events such as trade fairs in Düsseldorf. By using cruise ships as hotels during the high seasons prevent unnecessary hotel investments. By doing so they help to maintain sustainability.

A sustainable tourism destination can be reached by inspecting and monitoring quantitative and qualitative changes. Basically the success of tourism activities measured with income earned through such activities. However a handful of researchers are concerned about sociocultural changes, environmental changes and so on. In order to protect the environment you ought to travel and see what you should protect, not to travel is not a solution. But when you travel make sure and make aware of others that every step forward should have sustainability in mind.

Using the LCA (Life Cycle Assessment) methodology cruise tourism impacts include infrastructure impacts, operational impacts, distribution impacts, use impacts and waste impacts (Johnson, 2002). Sustainable strategy has to take into account these impacts and it will be clear that these impacts can be rationalized with a sustainable approach.

Economies of scale (ES) can be used for cruising industry in order to make a sustainable system. In other words average cost decreases as the scale of production becomes bigger. By doing so, less harm per passenger will be given to the environment. Likewise unsold cabins mean more negative environmental effects per passenger. It means in order to design a sustainable cruise-ship tourism, one should run the ships full capacity by finding alternative use of cruise diners such as conference venues, business meetings, educational tours, family reunions, cultural activities are only some examples and open tour innovative thoughts. Another way of preventing unsold cabins is to offer low prices to last minute passengers to ensure the sustainable trip.

There are specific issues for the cruise industry and these are importantly in relation with natural and social environmental ones (Dowling & Vasudavan, 2000). Sustainable Tourism Should;

- 1) Make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.
- 2) Respect the socio-cultural authenticity of host communities, conserve their built, living cultural heritage and traditional values, contribute to inter-cultural understanding and tolerance.
- 3) Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities, social services to host communities, and contributing to poverty alleviation (UNEP & UNWTO, 2005).

Economic Effects

Economic benefits are coming from several resources; those are a) passengers and crews spendings b) operational spendings c) ship maintenance and related expenditures d) port spendings e) tax spendings f) insurances and some other service spendings. Many cruise companies prefer to register the ships under the flags of convenient countries in order to minimize paying local taxes and being exempted from paying certain taxes and fees.

Environmental Effects

Whenever there are people, there will always be waste. Especially nowadays our capacity of having wastes increases ranging from packaged materials to technological waste. There are both necessary and unnecessary wastes such as ballast water for first and solid waste for the latter. In order to avoid such threats, improved water safety programs should be applied.

Sustainability

Ecological Sustainability

For preserving the ecosystems, ecological sustainability has to be taken seriously. Tourism activities use indirectly the ecosystems such as in historical tourism, sea, sand and sun tourism and so on. A sound planning can guide us to have an environmental sustainable tourism.

Economical Sustainability

Sustainable tourism regards the welfare of destination societies by protecting local sources and improving their conditions. Tourism activities may create economic opportunities for the local people and have a contribution to the regional value added. Dwyer and Forsyth had done a study and came up with a framework about the economic factors.

The intensity of demand is the key factor in defining the cruise regions. The actual intensity of demand ranges from the rarely visited or experimental or adventurous cruise areas of Alaska, The Antarctica and The Amazon, to the most frequented or popular cruise destinations of The Caribbean and Mediterranean seas (Ritter&Schafer, 1998).

Social and Cultural Sustainability

There are different nations, languages and cultures in the world. Having an awareness and respect for all kinds of differences will bring mutual understanding. Tourism has to take into account the guest and the host social and cultural status into account. The host communities are service providers for tourism industry and social responsibility means the conservation of social and cultural values.

There are different crew members coming from different nations. It is necessary to make them learn sustainability because there is cultural diversity. Cruise Lines International Association is taking social and cultural sustainability seriously. SKAL is the largest professional tourism organization which has a chosen aim to be sustainable in tourism development. SKAL and Cruise Lines International Association are both members of TERN (Tourism Emergency Response Network) designated by UNWTO (Genç, 2015).

Ethics

First of all sustainability is an ethical stance in our thinking and living. Not only in business life and/or tourism but also in every sphere of our lives we have to act having sustainability in our minds. All day long we are leaving the marks of our existence and acts on this planet besides being consumers. In order to reduce these marks and to be a producer while being a consumer, we should give emphasis to the term sustainability.

As being an ethical stance, being sustainable is also a vested interest for businessmen and stakeholders. For the area of cruise tourism, to understand the value of sustainability can be uneasy. All the beautiful sees, oceans, bays and wonders of world seem to exist forever but they actually don't. It may be hard to see the changes in nature in our time perception but not for the careful and sustainability oriented eyes. For being able to organize cruise tourism as of today, the organizers need to accept that the world doesn't have the capacity to erase our marks and to renew itself as fast as we give harm to it.

Dialogues within the same sector and the different ones enable to share or adapt new practices. This leads to a way for improvement and also another way is to identify new opportunities. Researching and analyzing the data to see to the extent that the applications for sustainability have worked so far.

Waste Management

One of the leading companies in cruise-ship sector, The Carnival Cooperation, grouped the waste as regulated waste, food waste, solid waste, hazardous waste and recycled wastes. Regulated wastes are cleaning products and solutions in general. They are transferred to the shore sides that have regulations and license for disposal. Food wastes includes all the eatable things on board. Solid wastes includes all the substances. They are incinerated on board or landed ashore to the appropriate places. Hazardous waste includes all liquid, solid

and gas waste that poses risk to human health. They have to be transferred to licensed shore sides. Recycled waste are the materials that is suitable for another use after going under processes. They have to be sorted out. For that both the crew and the passengers can be careful for not blending the recyclable material with the other waste. Recycled waste are broad; plastic, glass, paper, aluminum, batteries are only some examples. From here now on, I will discuss what is used on board. These are fuel, paper, packaging material, food and water, electricity and chemicals.

For sustainability one of the first things to do is to reduce the rate of fuel, greenhouse gas and CO₂ emission ratio from the shipboard operations. Used cooking oils have to be gathered and be taken to a lab and used as a fuel. Another sensitive issue on board is paper. We can ask staff and guests to use less paper and minimize the packaging materials. When purchasing for the kitchen extra attention can be given for choosing absorbent kitchen paper and food and drinks which will be solved in big bulks can be preferred. For advertising alternative methods can be used by reducing paper brochure. Used furniture, clothes and other goods can be donated for the purpose.

Treatment of waste directly on board with the analysis of technologies necessary for creating new products; we can hypothesize above all over the use of the compactors to reduce the volume of paper and create “bricks” of compressed paper which can easily be stored whereas damp paper can be dried and compressed to obtain pellets for burning. Alternatively the paper waste can be transformed into cellulose pulp which can be used as raw material for producing new paper. All possibilities can however be analyzed during the course of the project.

The major risk on board is the water. Water is stored from various ports so there is the risk of contamination. Reduce the rate of water consumed is a good way of sustainability. Waste water has to be classified according to their sources and special attention has to be given to each source. Using shore power which enables ship to turn off ship's diesel engines to minimize air pollution is an effective caution.

Incineration on board and ashes has to be tested whether they are hazardous or not and then should be landed a shore. Inverter climas, efficient machines, led lightining fixtures and hvac (heating ventilation air condition) have to be used. Wet cleaning instead of dry cleaning should be used because dry cleaning has lots of chemical materials. Batteries and mercury containing light bulbs should be sent to recycle.

Management

To make cruise-ship industry more appealing and long lasting, management should make sustainability a philosophy of ethics. It requires when necessary changing regulations and evaluating new methods to minimize the environmental impacts. At the same time informing the crew and enable them to have an environmental concerns by organizing regular meetings. Nevertheless there is a study which proves the importance of educating tourists about the wildlife and natural environment (Orams, 1997). It is crucial to enable all employees to have information about their job and job processes (James & Baldwin,

2003). This requires offering not only personal training but also teaching daily operations (Genç, 2013).

The happiness of employees leads to the happiness of customers (Lashley, 2000). Like this fact the sustainable mind of employees lead to the sustainable mind of employers. The process of recording and analyzing the ship management documents enable keeping track. The technology for green ships, classification of recyclable material and rationalization of materials on board are good practices of environmental sensitivity.

ISO 14001 focuses on the process of how services delivered and products are produced rather than on the actual service or product itself. It also presents a structural approach to setting environmental objectives, targets and provides a framework for organizations to apply these conceptions to their processes. Since many of the cruise ships do have ISO 14001 in order to keep the international standard, they need to comply with related rules and regulations constantly and kept truck to ensure it.

Ship scrapping without extra caution is not sustainable. This process needs to be analyzed and sustainable plans for scrapping the ships must be elaborated. Most of shipbreaking industry is located in developing countries where shipbreakers sell their products to the construction industry (Stopford, 1997). Ship scrapping without caution is not a sustainable act and produces waste. Since there are no rules and regulations concerning sustainability and/or environmental and public health developing countries, not the developed ones, apply for this kind of operation.

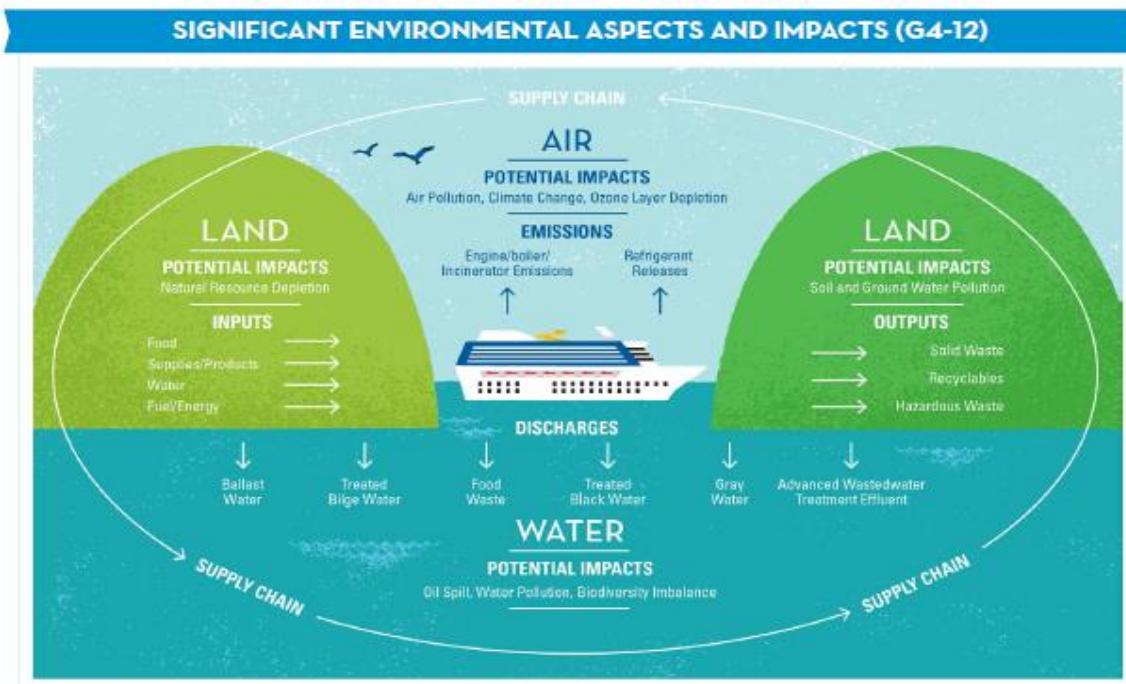


Figure 1. Significant Environmental Aspects and Impacts

Every cruise ship is a system like human body. Of course there will be some intakes in order to live and there will be some outtakes which some are useful and necessary and some others are not environmental friendly and needed to be treated as we can see in Figure 1.

Environmental Regulations

The OWG (Open Working Group) Sustainable Development Goals allocates sustainability into six categories: people, economy, and society to be developed, and nature, life support and community to be sustained (Global Sustainable Development Report, 2015). Whether it is simple data collection or physical participation in conservation activities, these ecotourism holidays have a positive impact on the environment, host community and travellers (Davies, 2002). Sustainability in cruise-ship management is taken into consideration by international bodies. They prefer accepted regulations and put them in power. Some leading international environmental regulations are shown in Table 1.

Table 1. Environmental Regulations

International Convention for the Prevention of Pollution from Ships, 1973 MARPOL	To govern and reduce pollution from ship operations
International Management Code for the Safe Operation of Ships and for Pollution Prevention (the ISM Code)	An International standard for the safe management and operation of ships and for pollution prevention
Flag state marine environmental rules and regulations	Rules and regulations from the places where the ships are registered
Port state marine environmental rules and regulations	Rules and regulations from the countries and areas where we operate
Directive 2000/59/EC of the European Parliament and of the Council 27 November 2000	Reduce discharges of generated waste and cargo residues to sea
Council Directive of 12 December 1991 on hazardous waste (91/689/EEC) amending Directive 78/319/EEC on hazardous waste	Defines hazardous waste and how it is managed
U.S. Act to Prevent Pollution from Ships	Implements MARPOL and governs ship air and water pollution
U.S. Clean Water Act (CWA)	Sets standards for effluent discharges to bodies of water and territorial waters to prevent pollution
U.S. Vessel General Permit (VGP)	Regulates discharges incidental to the normal operation of vessels
U.S. Clean Air Act (CAA)	Protects the public from exposure to airborne contaminants that are hazardous to human health
U.S. Resource Conservation and Recovery Act (RCRA)	Hazardous waste management regulations
Alaska Cruise Ship Legislation	Regulates water, air and waste from cruise ships
Hawaii Cruise Ship Legislation	Regulates water, air and waste from cruise ships
Ballast Water Management Regulations: U.S. Coast Guard, California, IMO, Canadian, Bermuda and European Nations	To prevent impacts to marine and aquatic life
Limits on fuel sulfur content	Requires compliance certificate; sets sulfur content limits
Guidelines such as Memorandum of Understanding Cruise Operations in Washington State, Florida Department of Environmental Protection Memorandum of Understanding, Cruise Lines International Association	

Stakeholder Management

Stakeholders are responsible from and will be affected by the future of the company. Figure, 2 shows the relation between various concerns and their effect on the stakeholders and the company.

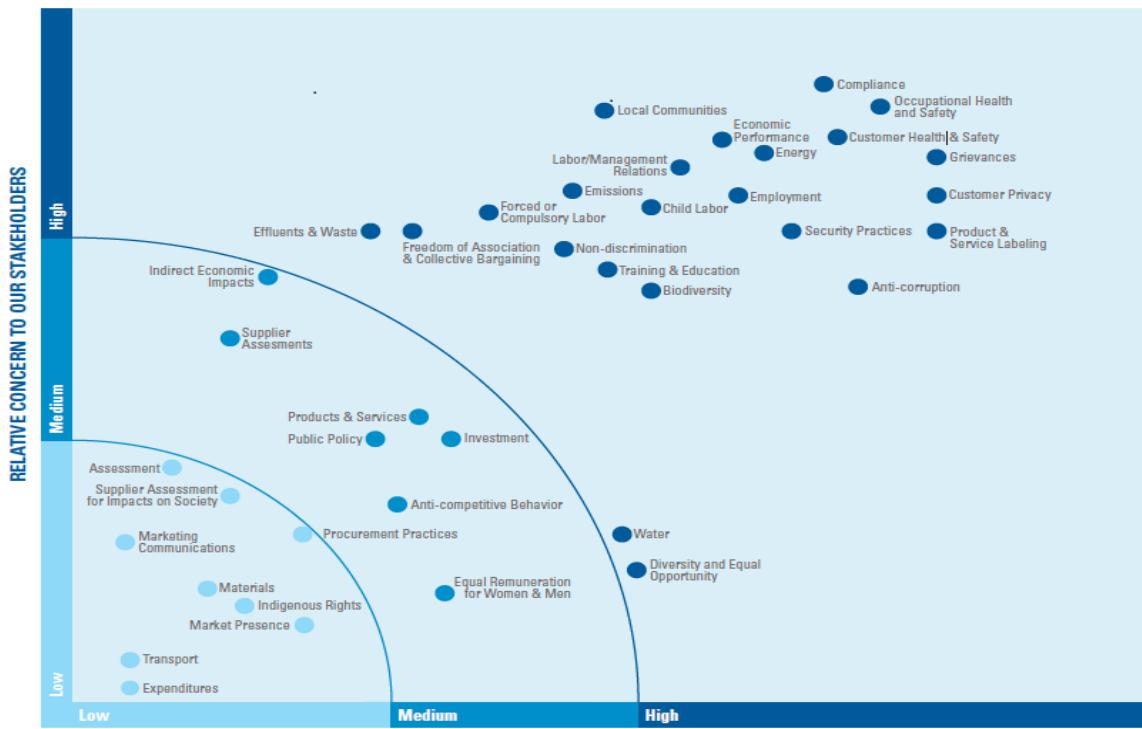


Figure 2. Stakeholder Management Chart

This figure indicates that when the issues related to sustainability are highly concerned by stakeholders and they get highly affected. The more the sustainable issues are concerned, the more the stakeholders positively get affected.

The food sustainable encompasses entire food value chain starting from farmers to processors all the way to consumers. It also covers social, economic and environmental surroundings. Human lives, biodiversity, animal welfare cannot be excluded from sustainability. All these issues should be updated as frequent as necessary.

Table 2. Legislation Pertaining to Marine Pollution

Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LDC) 1972 amended 1996	Advocates Best Practicable means to reduce pollution and production of harmful wastes. Prohibits deliberate disposal of certain wastes at sea. Categorises waste into black (prohibited) or grey (permit required)
International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78	Contains six annexes that prohibit discharges, sets construction standards, imposes penalties, allows for enforcement and identifies 'Special Areas', covering: oil, noxious liquid substances, harmful substances (packaged), sewage, garbage, air pollution.
United Nations Convention on the Law of the Sea (UNCLOS) 1982. Part XII. Protection and preservation of the marine environment	Articles 194 & 195. Includes measures to prevent, reduce and control pollution of the marine environment and to prevent transfer of damage or hazards from one area to another
International Safety Management Code (ISM)	The mechanism for accountability of mandatory standards as set out in the Ships Management System (SMS). Contains requirements for all vessels to record volumes and types of waste (in accordance with MARPOL 73/78) and method of disposal
Merchant Shipping (Port Waste Reception Facilities) Regulations 1997	Based on findings of Lord Donaldson's report of 1994 ^a , which led to improving regulations and enforcement, improving facilities for the legal disposal of waste in ports, increasing penalties for illegal discharge
EU Directive: 2000/59/EC. Port reception facilities for ship-generated waste and cargo residues	Covers requirements for port waste reception facilities with the aim of reducing discharges of ship generated waste and cargo residues into the sea by improving availability and use of port reception facilities.
MGN 253 (M+F). Port Waste Reception Facilities Regulations 2003	Covers requirements for vessels to report volume and type of waste on board, volume to be discharged or kept on board and mandatory charges for disposal of ship generated waste. (excluding recreational vessels and fishing vessels)

Safer Ships, Cleaner Seas (1994). Report of Lord Donaldson's inquiry into the prevention of pollution from merchant shipping

The International Council of Cruise Lines (ICCL) are the major trade association of the cruise industry, representing 16 major cruise lines which handle approximately 85% of the worldwide cruise market. Their remit is to monitor domestic and international policy that directly affects the industry to develop recommendations for its members that reflect the policy climate. ICCL have status as a non-government consultative organisation to the IMO and actively participate in helping to develop environmental policy, legislation, conventions and treaties relevant to the industry (UNEP, 2002).

The ICCL have developed an Industry Standard for 'Waste Management Practices and Procedures', which all members have agreed to incorporate into their Ship Management Systems (part of the ISM Code); compliance with this standard will assist in enhancing present cruise-ship waste management (Butt, 2007).

Shipboard waste is streamed according to MARPOL 73/78 Annexes I–VI; which govern pollution control and disposal of ship generated waste and prohibits discharges in

designated ‘Special Areas’. Waste is streamed as oil, hazardous waste, waste water (black or grey), solid waste and air pollution, falling under MARPOL Annexes I, III, IV, V and VI (Butt, 2007).

Table 3. Disposal options utilised by Onyx Marine

Recycling	Oil, oil filters, batteries, aerosols, fluorescent tubes, scrap metal, glass, electronic equipment, refrigerators
Incineration	Oily rags, sludge and medical waste
Biological treatment	Bilge water, photochemical waste, sewage and grey water
Landfill	General garbage, food waste, incinerator ash (after consolidation and pre-treatment)

As an example Onyx Marine, one of the leading companies around the globe also classified disposals in four basic categories as shown in Table 3. Sustainability requires carrying capacity studies for destinations and hotel development sites be conducted than rigorously implemented through a system of effective planning and operating controls (Gee, 1994). As another example Carnival Corporation defines their environmental footprint by the significant environmental aspects associated with the operation of their cruise ships. Currently Carnival Corporation with Royal Caribbean International and P&O Princess Cruises, dominate the business (Johnson, 2002). Carnival Cooperation says;

“We made this strategic choice when we embarked on our sustainability journey, as it is the area we have the greatest control over for making changes and operational improvements. Our impacts include our use of fuel, electricity, water and food; discharge of wastewater; generation and disposal of solid wastes; emissions from combustion and refrigeration equipment; and our diverse supply chain. We also recognize that some of these factors can affect the biodiversity of the areas where we operate.

We continue to seek opportunities to reduce the environmental impacts from our operations by reducing emissions, reducing the generation of waste and implementing conservation initiatives. We have set a Corporate target of 20 percent reduction by 2015, from our 2005 baseline, in the intensity of carbon dioxide emissions from shipboard operations and all of our Brands have set ISO14001 objectives and targets.”

Limitations and Further Researches

This study has a few limitations. First of all samples are limited. The findings and conclusions are gathered from small groups. This paper focuses on transferrable findings. Bigger samples might have been given healthier results. In another study with new points and new data another set of results can be reached.

It is generally accepted that shipping provides the most cost effective and environmentally sound method of transportation for goods worldwide when compared with road, rail and airfreight. But all vessels generate pollution, including waste, which is now legislated through the requirements of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78) and the International Safety Management (ISM) Code, both under the auspices of the International

Maritime Organisation (IMO). Legislation is also in place through the European Union (EU) relating to the requirements for ports to provide reception facilities for ship-generated waste that cannot be disposed of at sea in compliance with the MARPOL 73/78 regulations (Butt, 2007).

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Key Factors That Differentiate Primary Niche Tourism Markets

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Abstract

Due to the economic and social structural shifts in both the way that tourism is produced and consumed, there are useful frameworks that can be used to understand the shifting meaning of the two contemporary tourism trajectories, namely mass and niche tourism. However, the rapidly growing niche tourism domain has not been supported by boundless theoretical foundations highlighting the key factors that distinguish primary niche tourist groups. As such, niche tourism professionals and researchers have limited theoretical frameworks to identify significant factors that segregate cultural, event and natural tourism. To assist niche tourism professionals and researchers in gaining an insight into primary niche tourist groups' motivations, attitudes and behavior, the objective of this study is to develop a theoretical framework identifying the key factors that differentiate primary niche tourist groups. This study suggests that in addition to general tourism characteristics, niche tourism professionals and researchers should identify the key factor/s of activity, environment and/or experience when segmenting cultural, event and natural tourism markets.

Keywords: activity-based segmentation, environment-based segmentation, experience-based segmentation, niche tourism

Eco-Industry and Conversion of an Industrial territory: The Case of Gdansk (Poland)

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Abstract

The eco-industry activities and environmental innovations (capture and storage techniques pollutants, renewable energy, new materials, new fuels, etc.) have considerable potential for industrial regions in crisis to enhance more sustainable economic growth. This transition to a sustainable economy is possible thanks to the support and measures implemented by the State and initiatives of private actors who play an important role in the market after economic liberalization. The city of Gdansk is revealing on this subject due to the presence of heavy industry over a long period of time. The main question that arises is: how did this industrial territory manage to change its territorial trajectory by giving priority to industrial ecology (eg. recovery, waste reuse) and the development of environmental innovations which aim to reduce the impact of large industrial enterprises on the environment.

Keywords: eco-industry, environmental innovations, liberalization, regional conversion, Gdansk.

Relevance of the Research and Goal Settings

Born in 1989, the industrial ecology approach attempted to disrupt the strategy of the firm relative to the environment and the actions of public actors. Environmental economic policies with to give priority to the promotion of industrial ecology highlight the importance of local economies. All the more so if they are based on heavy industry. Industrial ecology is introduced in the wake of the conversion of heavy industry. This collective approach (Erkman, 2004) resulting in the emergence of eco-industrial synergies contributing to the establishment of an industrial symbiosis considered a mature ecosystem (Beaurain & Brullot, 2011). Meanwhile, industrial companies are looking to reduce their environmental impact by implementing environmental innovations. These latter are today presented as new means of transition towards territorial dynamics based on green economies (Oltra & Saint John, 2001; Markusson, 2001 Gasmi & Grolleau, 2003; Depret & Hamdouch, 2009). The passage of a productive system characterized by high industrial concentration to a different morphology based on the green economies is possible due to the accumulation of secondary assets (knowledge, skills etc.). It is powered by the joint intervention of the State, local authorities - various incentives - and companies shifting their strategies for innovation and investment.

The issue of this article is based on the close links between the conversion of industrial territories after the crisis of heavy industry and industrial ecology. The main question is: is it possible that the territory of Gdansk formerly industrialized can develop some assets (new activities, new practices) that could ensure its sustainability? From this central

question, follow the secondary question: is the change of the local strategy and the efforts of local authorities sufficient for the establishment of eco-industrial synergies in the territory of Gdansk? To answer these questions, this research is based on the evolutionary theory of the firm and the theory of transaction costs. These theories provide an interesting explanation for the conversion of territories and change their trajectory.

Industrial Ecology and Industrial Territory

The Contribution of Industrial Ecology to the Development of Industrial Territory

The concept of industrial ecology stems from work and N.E. Galloopoulos R.A. Frosch (1989) that define it as a set of practices to reduce the negative impact of industrial activities on the environment. These practices include: recycling of used goods, reduced resource consumption and the search for alternative raw materials. The introduction of these practices changes a radical way the strategy of the firm relating to the environment (Vivien, 2003). Industrial ecology is not limited to individual actions of different actors, but it encourages their cooperation with the aim of creating synergies through which waste of a company become resources for others to complete the material flow, energy, etc. Eco-industrial synergies also contribute to the sharing of equipment (processing unit...) or resources, the pooling of business services (collection and collective waste management, public transport...) and the joint procurement of materials raw, finished and semi-finished products (logistics, bulk purchases...). The links that are forged between producers located in a territory contribute to the emergence of a system of relations similar to a production chain. The analogy with the production chain perfectly explains how operate the actors applied in industrial ecology. This link between the activities of different players contributes to the emergence of an inter-firm trade system to maximize the effects of eco-industrial synergy.

The development of industrial ecology can be considered like crucial for the territories that experienced the crisis of heavy industries in the 1980s. These territories, in fact, affected by the crisis of heavy industry (closure of industrial units, massive layoffs) had to reorient themselves to adapt to changing economic and competitive conditions, internalizing, in particular, the new industrial strategies of large companies by outsourcing and networking effects turned to the casual or special weaving with smaller companies (outsourcing, spin, cooperation...). The industrial organization on a local level is complex, but at the same time facilitates (in theory) eco-industrial synergies that may eventually become a key factor in the territorial renewal.

Considering the process of reorientation - reorganization - conversion focused on the environment, we can return to the regionalization of industrial ecology, which introduced an environmental management system based on proximity relations. Industrial ecology can contribute to changing the trajectory of the local economy through collective learning and the acquisition / formation of secondary assets (from the environmental approach) which can gradually be able to give rise to new waves of investment (Nelson, Winter, 1982). Industrial ecology is introduced into an environmental management system based on the close relationships that contribute to change the trajectory of the local economy through collective learning and the acquisition / formation of secondary assets (from environmental

approach) which can gradually be able to give rise to new waves of investment (Nelson, Winter, 1982).

Industrial ecology plays a "revealing" role in environmental management (Dannequin, Diemer, 2009; Diemer 2012), contributing to the emergence of an industrial symbiosis (Chertow, 2004). It brings together players located in the territory of a collective process of exchange and cooperation for the development of their waste and its co-products, with economic benefits for all partners (Diemer, 2012). It is powered by a collective learning process that led to the emergence of skills, knowledge and experience that can transform the local production. The accumulation of these new assets should allow changing the trajectory for a long time by the industrial territory (Laperche Lorek B. M., Uzunidis D., 2011). The emergence of this symbiosis requires the development of inter-enterprise strategies for the mutual development of resources.

Industrial ecology can also be considered as a criterion of attractiveness and differentiation of the territorial economy by the reduction of resource consumption, greenhouse gas and pollution as well as from recycling, recovery and reuse of waste (Erkman, 2004). The industrial ecology approach as collective action actors involves two major steps in its evolution:

- The first step that is to disseminate of information on industrial ecology and distribution technologies enables firms to meet the challenges of sustainable development;
- The second stage corresponds to the emergence of a mature ecosystem that relates to the strengthening of cooperation between local businesses with the aim to promote collective learning and the development of eco-industrial synergies to the value of their waste and their co-products.

Industrial ecology combines technological innovation with organizational innovation enabling the generation an institutional dynamic able to create change. It can be therefore considered as a source of innovation to foster the development of new technologies for sorting and recycling waste. Technological innovation is geared towards reducing negative externalities generated by heavy industry. These environmental innovations compatible with industrial ecology are designed to meet the opportunities of sustainable development. These innovations can improve both the economic efficiency of enterprises and the quality of the environment by favoring the emergence of industrial symbiosis.

They can be classified in different ways, namely:

- Initially, they can be distinguished according to the objectives of sustainable development, including prevention, treatment end of the chain, substitution, rehabilitation, monitoring, and resource economy.
- In a second step, the distinction is made between additive technologies and integrated technologies. The first are incorporated into existing processes or products to reduce industrial discharges. For seconds, environmental characteristics are an integral part of the design process or product.

- In the last step, the technologies are divided according to the nature of innovation. In this sense, two types of innovation are highlighted: incremental innovations that affect all the improvements to products and production technologies and radical innovations that create a break in the evolution of processes and products leading to their transformation (Grübler, 1997).

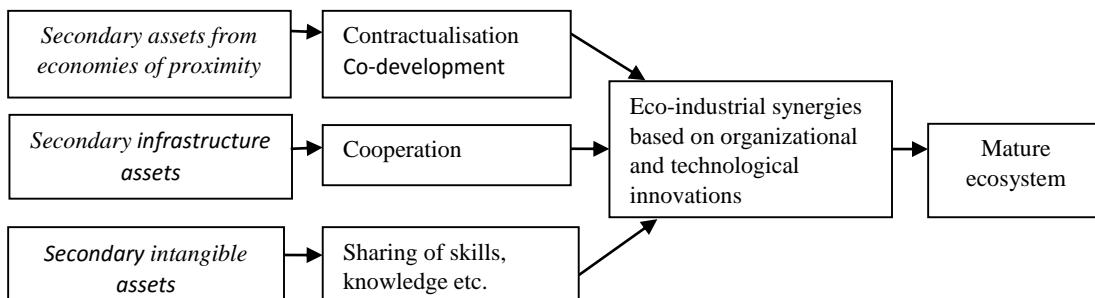
If industrial ecology approaches appear to complete the relevant process of conversion of a territorial economy, it seems important to return to the conditions that allow to transform industrial territory into mature ecosystem while fostering the valorization of core activities.

The Conditions Necessary for the Development of Industrial Ecology

The setting up of industrial ecology is possible on two conditions: the first relates to the creation of new institutions that foster cooperation between public and private actors and the second is related to the accumulation of the secondary assets necessary to innovate. Hence the importance of the application of evolutionary theory of the firm and the theory of transaction costs which present the eco-industrial synergies as the result of the valuation of all specific assets accumulated in over time (Dosi, Teece and Winter, 1991; Williamson, 1975). O. Williamson distinguishes two types of specific assets: primary and secondary (built). The first help of territories to protect their comparative advantage and ensure their position. While secondary assets (new knowledge, social networks) can be considered as assets prior to change (Laperche, Lorek & Uzunidis, 2011). These assets are endogenous to the organization (Boissin, 1999). They are built by the interactions between the local actors. The accumulation of secondary assets allows beginning the process of local restructuring, promoting diversification / reorientation of economic activities. Using a study of O. Williamson (1986) and O. Boissin (1999), three types of secondary assets are determined to promote industrial ecology:

Secondary assets from economies of proximity (geographical, organizational and cognitive) - specificity linked not only to the geographical proximity, but also to the development of technical systems and infrastructure contributing to the development of contractual relations encourage the transfer and diffusion of skills, knowledge, know-how, etc.

Secondary infrastructure assets - specificity built by the physical equipment for integration and cooperation of local actors. Secondary intangible assets - specificity built on the accumulation of skills, human knowledge and the creation of social networks.



Source: from study of Williamson (1986) & Boissin (1999).

Figure. 1. Secondary Assets Encouraging the Emergence of Mature Ecosystem

The reconciliation between actors belonging to different institutional networks contributing to the emergence of a coordination system based on collective action (Lecoq, 1991). The institutions that encourage "shared values or rules allowing actors to cooperate" and solidarity of actors from different institutional networks, including the local authority, chambers, business... is a new way to ensure local development (Colletis, 2010, p. 237). In this context, innovation can be presented as a territorialized interactive process that fuels the development of local economies. The setting up of industrial ecology depends on interactions between public decisions and business strategies.

Use of the concepts developed in the framework of evolutionary theory of the firm and those of the transaction costs theory for understanding the evolution of high industrial concentration territories (the change of principal activity or substantial diversification of activity) (Laperche, Lorek and Uzunidis, 2011).

The Development and Conversion of Industrial Port Complex of Gdansk

The territory of Gdansk has quickly embarked on the path of industrialization after the Second World War. He played a key role in the development of the shipbuilding industry and heavy industry. The constitution of a heavy industrial port complex marked a turning point for the economy of Gdansk. After the liberalization of economic activities, this economy went through a major transformation, especially as the new local policies implemented during the 1990s, favored the accumulation of secondary assets which results in the creation of high-technology firms which have found favorable conditions for their development and the improvement of its scientific and technical potential. This transformation of the economy of Gdansk is encouraged by the proactive policy of the local authority, which gives priority to the development of innovation. On the one hand, this territory is an interesting example of a regional economy with a legacy in the form of heavy industry. On the other hand, it has significant potential for innovation developed after the reintroduction of a market economy. The high-tech activities and eco-industry can become the new growth paths for the economy of Gdansk.

The Constitution of the Industrial Port Complex of Gdansk and its Crisis

The territory of Gdansk has been selected by the Polish State to become the capital of the Polish shipbuilding industry. The movement of heavy industries in the seaside and the accumulation of specific primary assets encourage the formation of a industrial port complex in the territory of Gdansk.

The *specific assets from economies of proximity* encourage the installation of public production unit Centrostal specializing in the steel industry in 1946. Its activity was completed by the production unit specializing Budimor in the metal sector in 1960. These units with the firms specialized in the production of intermediate goods constituted a steel/metallurgy sector in Gdansk. Next to this sector, Gdansk refineries have developed through the port, and therefore close to it, because their productions were based on imported raw materials. The activity of the port and transport companies has enabled them to provide oil needed for production of oil and refined products and export the finished products. The Soviet Union was the main supplier of oil to the region.

The Polish State has assured the accumulation of specific infrastructural assets to meet the needs of the industry based in Gdansk through its production units: energy (eg Construction of a power plant Wybrzeze.), facilities logistics (eg. Access to rail and sea transport) supply of raw materials at a lower price (ex. The supply of oil to refineries in Gdansk). In the second half of the 1960s was built sulfur export terminal to meet the needs of the institution Fosfory, producer of pesticides. Its activity has been completed by the coal terminal developed in 1974 and the dedicated terminal for oil products in 1975. The State retained the exclusive direction of territorial policies.

The industrial port complex in Gdansk consisted of three main activities: steel/metallurgy, petrochemical industries and energy. Between the years 1965-1968, the annual average growth rate of the production of iron and steel industry increased up to 19%. At the end of this period, this production constitutes 4.8% of the national production. The chemical industry had increased 20%, representing 3.2% of national production. The production value of oil and refined products increased by 14%. Between 1971 and 1974, the growth of industrial production in the Gdansk region was higher than the country's industrial production (10.1%) and slightly exceeded that of the Gdansk Voivodship (11.4%) 11.5 % which allows it to be presented as one of Poland's growth centers.

The dynamic development of heavy industry generated a benefit in the form of economies of scale in the Gdansk region, which is manifested by increase in the industrial production and the presence of large production units. Industrial production is passed from 8.5% to 11.5% average annually growth between the periods 1961-1970 and 1970-1974. Its production base was mainly based on large production units 1,000 employees and more. These large production units represented 53% of total production units in Gdansk in 1968.

Development, according to the logic of economies of increasing scales, caused an acceleration of production while leading to an accumulation of unskilled labor. On the one hand, the presence of low-skilled labor force has limited the economic, technical and organizational progress of production units in Gdansk. On the other hand, the machinery and equipment installed proved insufficient to maintain production in the Gdansk region. The production of the Gdansk shipyards began to stagnate. These industries have eliminated 4.3% (annual average) of industrial employment between 1974 and 1984. The unemployment rate rose from 4.3% in 1970 to 14% in 1992. Refinery of Gdansk was disrupted by the high cost of oil delivered by the USSR caused by the unfavorable regulation of trade. Local exporters who sell their products in the West found themselves in difficulties due to market saturation. Between 1975 and 1979 the public investment made in Gdansk was divided by three, which resulted in an increase in industrial activity costs and a drop in production (GUS, 1979). The industries of steel and metallurgy were the first affected. Rising prices for basic commodities in June 1976 sparked a series of revolts which first took place in the shipyard of Gdansk. A significant separation between decision-making and implementing bodies was that consensus has been difficult to implement.

The decline in which was driven the region of Gdansk, caused enormous damage that definitely called into question the centrally planned model of development. The economy of Gdansk has faced two major problems:

- A strong presence of heavy industry undergoing restructuring pathway leading to the mass dismissal of employees (underemployment);
- A high concentration of heavy industry resulting and unskilled labor.

Market Economy and Institutional Transformations of Gdansk

The introduction of a new regulatory framework by the State Council in 1989 has gradually separated the public and private interests in Poland. This framework has expanded the jurisdiction of the regions, leading to a large part, by the increase in financial resources available to them and more freedom in terms of urban development and local planning (the law of 8 March 1990 on territorial autonomy of Commons). Between 1990 and 1992, the CEE (Central and Eastern Europe) countries (including Poland, which was part of since 1986) have implemented most of the laws market economy, including the law on contracts, corporate law (freedom undertaking), the law on bankruptcy, antitrust law, social security law, the new accounting system, the new banking regulation and judicial reform. The institutional framework has recovered to allow enterprise to freely access information and resources. The new measures have changed radically of the institutional and economic relations structuring the productive system of Gdansk.

The signing of the Charter of Local Self proposed by the Council of Europe was part of the continuity of the local conversion. The administrative and territorial reform (1993) was made in view of the future accession of Poland to the European Union (entered into force on 1 March 1994). Sixteen new structures are created to replace the old 49 (the Act of 5 June 1998). Gdansk Voivodeship is suppressed and its territory is integrated in the Pomeranian Voivodeship. Gdansk became the capital of Pomerania, allowing it to remain an important seat of local authorities. In addition, local and regional institutions, which were created during the process of transition in the territory of Gdansk, form an important institutional network, including: support centers for entrepreneurs, entrepreneurial incubator Agency Baltic Regional Development (1992), Regional Development Agency Pomeranian, the Service Centre for Entrepreneurs and others. These institutions provide considerable support for processing local businesses, the development of new economic structures, promotion of local and regional economic activities while ensuring the accumulation of the active secondary outcome of agglomeration economies contributing to the development of interaction formal (contract) and informal between local actors. Their functioning depends on public funding and funding from local businesses. The emergence of the Chamber of Commerce and Industry (1990), the oldest organization established in local autonomy initiative plays an important role. This institution now includes about 1,500 economic agents who take initiatives, set their own strategies, managing to change the local situation. The Gdansk region turns into an environment conducive to the creation and development of businesses and research partners. The collective effort of public and private actors in Gdansk contributed to the creation of several institutions dedicated to the development of innovative companies. These institutions have statutes and different functions. Their activity improves the local system primarily provides for advice, financial support, assistance in the search for a location and the creation of a relational system.

After the privatization law, which was enacted on 13 July 1990, the Gdansk region recorded a significant decline in the public sector. The base of private enterprises increased by 43% in 1991 to 67.7% in 1998, reflecting the gradual withdrawal of public power (GUS, 1999). This phenomenon contributed to the transformation of the economic fabric of Gdansk in which we see the coexistence of two groups of separate production units: companies that after their conversion to a corporation retained the status of public companies (the new public sector, eg. The Gdansk Shipyard (8,204 workers)) and privatized enterprises (the private sector). Privatization has changed the legal status of enterprises giving rise to the birth of corporations, limited companies, etc. Most private enterprises working in the repair, construction, business services, trade, etc. While public enterprises are specialized in industrial production.

Analysis of local enterprises based on their legal status shows the dominance of individual companies. They can benefit from an economic advantage in the form of a tax on lower income compared to other types of businesses. On the territory of Gdansk, they also enjoy higher public aid after the conditions defined in the Special Economic Zone of Pomerania, which was created in 2001 to develop a competitive environment. The attractiveness of the Gdansk region has improved, resulting in the dynamic business development on its territory. These companies play an important role for the traditional sector companies that have accumulated considerable technological gap. The rate of entrepreneurship increased by 14.6% on average annually between 1990 and 2011. This increase is due to service enterprises whose share rose from 36.4% to 58.2% between 1995 and 2011. The Business disappearance rate also increased, an annual increase of 10.4% between 2003 and 2011. This decline is largely due to industrial enterprises accounted for only 10.3% of total establishments in 2011. New businesses could also benefit from the highly skilled workforce. Foreign enterprises accounted for only 2.3% of the total number of enterprises in 2011. They are not so numerous in the territory of Gdansk, but they are important because of the skill and expertise that they can share with local businesses.

To cope with the constraints of the market operation and openness to international competition, several large industrial facilities in Gdansk decided to outsource part of their activities for the benefit of small businesses and micro-enterprises. Their number increased from 56,398 in 2000 to 65,242 enterprises in 2011 (GUS, 2012). Small private enterprises were more responsive to market demands. Large companies, however, have not disappeared. Their number decreased by 42% compared to 1968, when establishments with more than 1,000 employees accounted for 53% of the number of establishments in the territory of Gdansk. This decline has resulted in the decline of industrial production and the number of industrial employees.

The industry remains currently the largest employer in the region, concentrating 41.2% of total employment in Gdansk thanks to the presence of large production units, including Energia company (11,009 employees in 2011) the Gdansk Shipyard (3 339 employees in 2011), Refinery of Gdansk (471 employees in 2011), Polpharma (1,590 employees in 2011), the Lotos Group (5,015 employees in 2011). Service companies represented 30.5% of total companies Gdansk in 2011. The local authorities' policy has always attached great importance to the development of industry in the territory. The new industrial and

technology park that is being built close to Gdansk airport enter in this perspective. Large industrial companies that have remained in the territory of Gdansk, have rather successful restructuring contributes to the development of new activities to the example of the Gdansk shipyards that have specialized in the production of "niche vessels" (offshore vessels, fishing vessels, container ships, multipurpose freighters) for the development of other activities (production of wind) or the Gdansk refinery has diversified its production base (production of bio-fuels). The positive trends in the development of Gdansk's economy significantly reduce the unemployment rate in the first half of 2012 rose to 5.8%, against 13% in 2002.

The transport and communications sector has been modernized to serve the territory of Gdansk. LPG port container terminal began operations in 1998 and two port container terminals DCT (Deep Water Container Terminal) which started in 2007, as the main issue of the development of the port of Gdansk. The number of connections with Western Europe (mainly ferry, container and ro-ro) is increasing, and since 2009, the new direct container service to the Far East has opened up new development prospects for the port Gdansk (GUS, 2011). It became the largest transshipment center on the Polish coast of the Baltic Sea enjoying various tax incentives, financial and infrastructure of the state. The proximity of the port and the airport allows companies to choose from a wide variety of export routes for their finished products. Industrial companies have strengthened their technical capacities by setting up computerized production process management. Local authorities have several instruments that help local companies to change their mode of production and consumption, namely subsidies, taxation (progressive tariffs on water), training (focus on sustainable development) and funding Research (investments in technological innovations).

Industrial ecology for conversion of industrial port complex

Attempts to Setting up of Industrial Ecology in Gdansk

The introduction of new industrial ecology practices in the territory of Gdansk should (in theory) allow to restructure its ecosystem characterized by industrial activity (pollution, waste) in the sense that new activities inspired and industrial ecology the technologies adopted by local enterprises considerably reduce industrial discharges. However, State action in Gdansk is targeted on the one hand, on the development of high-tech enterprises and on the other hand, on enterprises that offer complementary skills over existing businesses. Following the example of the company Polfa high technology that collects, transports and processes hazardous waste or DNA Biotechnology Company that specializes in the recycling of waste. This company is located in the Gdansk Technology Park. The development of specialized high-tech enterprises in the recycling or recovery of waste is still limited as a result of the lack of support structures that can strengthen their position in the territory of Gdansk to the example of eco-industrial park. These enterprises are rather the result of the choice made by private actors.

Between 2001 and 2010, the proportion of high-tech enterprises in the productive fabric of Gdansk increased by 43% on average annually. These enterprises account for 4% of the productive fabric of Gdansk. This breakthrough in high-tech enterprises promotes a deep

renewal of the economy. Just twelve years after liberalization, Gdansk region focuses 2,606 high-tech enterprises. These enterprises are not developed in a vacuum, but through their network. These networks are identified as high-tech clusters because of their strong connections with university milieu and their spontaneous character.

During the 2006-2011 period, service enterprises increased expenses related to innovation by 13.7% on average annually. This increase is due to approximately 43.8% in fixed capital investment, mainly machinery and equipment of equipment, against 25.5% research and development spending in 2011. The public industrial enterprises have significantly increased the share of products new or significantly improved research and development in the sale of 28.9% to 85.7%, more than double over the same period. This increase is due to the large companies that exceed 250 employees. In Pomerania, the share of sales companies from the sale of new products is on average 31.3%.

The presence of skilled labor in technology and engineering of environmental protection plays an important role in the development of eco-industry business and industrial ecology. These enterprises are not very many in the territory of Gdansk, but they play an important role alongside large polluting enterprises to reduce their impact on the local environment, 29 companies in 2010, the majority of which belongs to the private sector (28 private and 1 public). They allow this territory with high industrial concentration to meet environmental challenges (Lorek, 2012). All changes within the local production are encouraged for the introduction of good practices inspired by industrial ecology. Local synergies around these activities still concern at present a small number of industrial enterprises. Among the identified synergies, the example of the enterprise Pollytag who scavenges the company Energa Wybrzeze (124 752 tonnes of waste recycled in 2007) is important (GUS, 2009). Industrial, dirtier, which remained in the territory of Gdansk, change their mode of production through the adoption of environmental innovations. These innovations are used primarily to reduce waste (36%) or reduce the flow of materials and energy (36%) (Lorek, 2012).

At present, the entire energy "traditional" in the territory of Gdansk, came to enlist the new energy sources that complement this device, specifically, wind and biomass. New energy sources cover a significant portion of the energy produced in Pomerania, 27.3% in 2009 (GUS, 2012). Near to the Gdansk region, several wind farms were built to reduce the exploitation of natural resources, mainly coal. The interest of the establishment of wind farms is the improvement of Gdansk image that concentrates the majority of the polluting heavy industry in Pomerania. This diversification of energy sources, which shows the increase of renewable energy, has also led to the creation of eco-energy cluster "Baltic" in 2007.

Changes in production methods through the application of technological innovations can be seen as an asset to the development of industrial ecology. Companies invest in Gdansk more in technologies that save energy (Lotos Group, Amitech Poland), improve waste sorting system (Saur Neptun Gdansk shipyard repair site), recycle their waste (Remontowa Shipbuilding Polbruk, Lotos Group Fosfory, Federal-Mogul Bimet, PPMB Izolmat). On the basis of data compiled by the Central Institute of Statistics of Poland (GUS) on the

twenty-five largest industrial enterprises in Gdansk, a ranking of their environmental innovations is achieved according to the objectives of sustainable development (Table 1).

Table 1: Breakdown by the innovation environmental aims

Aims	%
Prevention (industrial risk management)	32%
End-of-pipe (reduction of industrial discharges)	36%
Rehabilitation (recovery of waste)	28%
Supervision (implementation of the monitoring system ...)	24%
Substitution (reduced consumption of resources and energy)	36%
Resource Economics	12%

Source: Lorek, 2012.

Analysis of the results shows that the largest number of technological innovations aims to reduce industrial emissions or consumption of raw materials and energy. Other technologies allow industrial risk management (32%) or recovery of waste (28%). The majority of these technological innovations have the character additive. That is to say they are added in the process or the existing product. These types of technologies may be considered incremental innovations. Radical innovations are rarer and they concern only the final product to the example of the company that produces Fosfory ecological pesticides or Lotos Group which specializes in the production of biofuels.

The approach of industrial ecology has focused on the development of eco-industrial synergies, which attaches great importance to cooperation between companies with the aim to reduce industrial discharges. This type of cooperation is emerging on the territory of Gdansk following the application of EU environmental policy. Among the identified synergies, we can cite the recovery of waste from the company by the company Energia Wybrzeże Polityka (124 752 tonnes of waste recycled in 2007) (GUS, 2009). This synergy creates innovation necessarily in that the waste (or coproduced) of a business must go through an intermediary transaction processing or treatment to become a resource for other companies.

Secondary Assets Accumulated by the Territory of Gdansk

The emergence of industrial ecology on the Gdańsk territory is in line with its restructuring. The development of this territory has long been provided by the growth of heavy industry in particular by port activities. Heavily dominated by the presence of industrializing industries (metallurgy, petrochemicals) for a long time, the city of Gdansk was little concerned about the negative externalities generated by these industries. Conversion of these industries, which led to a diversification of the industrial base, changes the local development strategy. Local authorities in Gdansk trying to better adapt their resources and strategic choices to economic, social and environmental issues through the implementation of collective action. These changes favor the accumulation of secondary assets capable of encouraging the development of industrial ecology in Gdansk.

The accumulation of secondary assets from the economies of proximity multiplies the number of contracts signed between local colleges and other local actors. The École Polytechnique is working in a more regular way with private actors as the centre of research and development of the company Intel Technology Poland. She filed 154 patent in 2008. Most recent data show that patent applications filed only by the Polytechnic of Gdansk account for 4.2% of all patent applications filed by non-commercial organizations in Poland in 2010 (Office patents, 2010 Polish). The University of Gdansk remains focused on basic research which explains the low cooperation with the industrial fabric.

The infrastructural secondary assets, related to the creation of the technology park and the centre of technology transfer in Gdansk, contribute to the integration of local actors and leading to the development of a climate of confidence facilitating the access to outputs of research. The emergence of private research laboratories intensifying exchanges between public and private actors. The development of public laboratories specialized in biotechnology contribute to the diversification of the productive fabric of Gdansk. Gdansk local authorities gave priority to the development of an economy of knowledge at the local level, promoting the development of high-tech companies.

Secondary intangible assets are linked to the presence of the schools (6 public and 14 private) and important R & D institutes which constitute a scientific and technical potential. The number of graduates in Gdansk represented 6.4% of graduates from the country in 2011. Gdansk students can make their choice in a large number of taught disciplines that have diversified in parallel with the productive fabric (e.g. biotechnology, computer, technology environmental Humanities). The potential significant, although emerge from specialty graduates in the area of ICT (computer, electronics and telecommunications) and biotechnology plays an important role. The higher schools of Gdansk each year attract more foreign students. The higher schools of Gdansk cover the largest part of spending on R - D is 39% in 2007. They concentrated 71.8% of research and development personnel at the local level the same year.

Conclusion

Targeting the case of Gdansk's economy, this study demonstrated that the liberalization of economic activities, which spawned the abrupt change of economic and social structures in Poland, was the key factor contributing to the renewal of its productive base by facilitating access to financial resources. The sectoral analysis shows that the revival of local businesses and transformation of employment structures was the product of the combination of three factors: first, the dynamic development of entrepreneurship during the local conversion, then strengthening the fabric of small and medium and micro-enterprises, and finally the development of new activities, upstream and downstream of existing activity. The new administrative system of Gdansk has set a goal to combine industrial development while improving the quality of the environment and the development of innovation.

The Gdansk region is in the process of accumulating secondary assets. However, despite the accumulation of these positive indicators, it is still too early to talk about the setting up of industrial ecology on its territory. The latter is often supported by a territorial

development project that contributes to the creation of a system of recycling / recovery as is the case of Styria in Austria (Blancher and Paquiet, 1999) or the emergence of symbiosis for the case of industrial Kalundborg (Erkman, 2004). The project designed by the local authorities in Gdansk has always attached great importance to the development of industry in the territory. The new industrial and technology park that is being created near Gdansk airport, is in this perspective.

The local authority action focuses on some vocations which are insufficient to generate eco-industrial synergies able to change the path followed for years by the territory, namely the improvement of the environment, strengthening the system environmental management, rationalization of consumption. The synergies identified in the territory of Gdansk are not important enough to development based on industrial ecology.

The Gdansk region is performance thanks to the rich and evolutionary interactions between the action of local authorities and firm strategy. Its development is based on the report combined the private initiative with the action of state or local authorities which helped boost its economy promoting high-tech companie's emergence and improvement of business skills in traditional sectors.

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The Trans Pacific Partnership Act's Effect on U.S. Employment Laws

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Abstract

The Trans Pacific Partnership Act's (TPPA) effect on U.S. employment laws will be devastating. Minimum wage laws and workers compensation will be undermined. OSHA and collective bargaining will be threatened. Employment laws were a long time in the making as management controlled the workplace throughout the 19th century. The 20th century gave rise to collective bargaining, FLSA, OSHA, ERISA, privacy laws, Title VII of the Civil Rights Act, etc.. Now, the tide has turned back to management with the workers who have been protected by these employment laws the victims. TPPA give the multinationals the ability to bring a law suit outside the American judicial system on the basis that local laws undermine free trade and compromise their ability to maximize profits. The resolution can be enforced within the United States forcing states, municipalities, domestic companies and small business owners to compensate the multinationals for their lost profits. TPPA will enhance insourcing wherein multinationals will bring immigrant workers into the United States under the guise of work visas at substantially reduced wages. American workers will face either the loss of jobs or retaining them at a significant reduction in pay. What do Americans think about TPPA? Most don't have a clue to what it is.

Keywords: employment law, Trans Pacific partnership Act, free trade acts

Brand Touch Point Management for Creating a Unique Brand-Customer Experience

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Abstract

Brands, companies and even destinations focus more than earlier times on the customer experience and all customers touch points; especially the people as they help deliver the experience. Brand touch points are those points through which a user comes into contact with a brand. These points can be tangible (a product or environment) or intangible (a service or the ‘word of mouth’ discussion around it), created by the brand owner (an advertisement) or by the brand user (a blog post evaluating a service or product). A shift is taking place from the tangible to more intangible touch points: from products to services and from services taking place in the physical world to services that takes place online. A similar shift is taking place from brand-owner-created touch points to user-generated touch points. However, a brand without any touch points that are put forth by the brand cannot exist: even a virtual brand like the social networking platform Facebook has to provide the website and infrastructure on which its users can generate their content. This paper examines the touch point management strategies used by different brands, companies and even destinations for improving their marketing effectiveness. It addresses also new media synergies besides brands’ conventional tangible touch points.

Keywords: marketing, brand touch points, brand management, customer experience, new media.

An Assessment of the Effect of Independent Regulation on Audit Quality

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Abstract

Following the spate of corporate collapses over the years, concerns have been expressed about the quality of the services represented by the audit function, and attempts were made by concerned professional bodies to make auditors deliver in accordance with stakeholders' expectations. However, the crises rather than abate, have assumed a recurring dimension, eliciting wide criticisms of self-regulation by professional accounting bodies, whose efforts have largely been described as mere impression management, without nipping the issues in the bud. The trend in many countries in recent times reveals a change from self-regulation to independent regulation, with the formation of the independent regulatory bodies like the Public Company Accounting Oversight Board (PCAOB) in the United States of America, and the Financial Reporting Councils (FRC) in the United Kingdom and Nigeria, among others. The Financial Reporting Councils of the United Kingdom and Nigeria have been at work since 1991 and 2011 respectively to date. This study evaluates the effectiveness of the independent regulatory model on the quality of audit work performed by audit firms and to assess the changes, if any, in audit quality, following the change in regulatory model. The Exploratory Sequential Mixed Methods approach involving both qualitative and quantitative methods of data collection and analyses was used. The qualitative component entailed an evaluative study of the FRC, United Kingdom, and an exploratory study of the FRC in Nigeria. Qualitative data were collected through interviews, document observation and analysis. Quantitative data, following from the analysis of the qualitative studies and related literature study, will be collected using the questionnaire as research instrument for a survey. Analyses of qualitative data were conducted using textual and content analysis, while the 't' test inferential statistical tool will be applied to quantitative data using the SPSS version 21 software. The completed analysis of the primary and secondary data in the qualitative study (interview reports, FRC UK audit inspection reports and FRC UK Tribunal Reports), reveal that a gradual increase in the percentage of good audits, and a gradual decline in the percentage of audits requiring improvement, in the United Kingdom. The explorative qualitative study of the Nigerian situation revealed a growing tension between the independent regulator and the regulated entities, as procedures adopted for, and outcomes of audit inspections have been constantly challenged in courts. A standard audit quality regulatory model does not appear to be in place yet. The study contributed to debates on the audit expectation gap and public interest theories. It further provided a guide for policy initiatives for the strengthening of audit regulation, especially in developing countries like Nigeria.

Keywords: audit quality, audit expectation gap, audit regulation, corporate governance, financial reporting council, public interest.

The Impact of Learning Styles on Managerial Job Performance: The Application of a Personality-Based Model among Hotel Managers

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Abstract

This study investigated the correlation between job performance and learning style preferences within a sample of hotel managers. The sample included 195 participants, representing managers from the general, support, operational, and sales functional areas. Performance data were provided by the employer, a hotel management company based in the southeastern US. Participants completed the Leading Dimensions Profile (LDP), a web-based personality inventory that estimates, among other workplace dimensions, three learning style preferences. Such learning style preferences are compared to scales derived from the Index of Learning Styles Questionnaire by Solomon and Felder. Results indicated that higher-performing managers were significantly more likely to follow a learning style characterized by Intuition (rather than Sensing) and Global (rather than Sequential) learning orientations. Implications for training managers are considered, in light of the potential association between learning style and job performance.

Keywords: LDP, job performance, learning styles, personality, hotel manager

Introduction

The acceptance of personality measures in predicting job performance outcomes has been covered by exhaustive research, with numerous studies focusing on the identification of specific behaviors which tend to influence work-related behaviors and ultimately, performance (Barrick & Mount, 2013; Barrick, Mount & Judge, 2001; Hogan & Holland, 2003; O'Neill, Goffin, & Tett, 2009; Rothstein & Goffin, 2006; Tett, Jackson & Rothstein, 1991). Some researchers have challenged the general utility of personality measures based on validity evidence (Morgeson et al., 2007; Murphy & Dziewczynski, 2005), while many have argued for the appropriate use of personality measures in specific applications such as selection, training and development (Backström, Björklund, & Larssen, 2009; Judge & Erez, 2007; Rushton, Bons, & Hur, 2008; Rushton & Irving, 2011; Van Der Linden et al., 2012).

Review of Literature

Practically speaking, personality measures have been used in order to evaluate potential similarities and differences among job seekers and incumbents alike, for selection, development and training purposes (Guion & Gottier, 2006; Malan et al., 2015; Marcus, Ashton, & Lee, 2013; Oswald et al., 2004; Tews, Stafford, & Zhu, 2009). It is no surprise

that such measures have found favor among employers, given that the underlying personality traits have been linked to specific workplace outcomes (Barrick, Mount & Li, 2013). For example, Le et al., (2011) suggested that there is a curvilinear relationship between personality traits (including conscientiousness and emotional stability) and job performance dimensions (including task performance, organizational citizenship behavior, and counterproductive work behaviors).

While much literature is focused on the association of personality traits with job performance, there is little research dealing with the impact of one's learning approach on job performance. In fact, performance outcomes are mostly only assumed for informal workplace learning (such as learning that is integrated with daily work that often happens unconsciously) (Froehlich, Segers, & Van den Bossche, 2014; Kyndt, Raes, Dochy, & Janssens, 2012; Marsick, Volpe, & Watkins, 1999). Schmeck (1988) argued that learning approach is dependent on personal and contextual characteristics and can be conceptualized accordingly. To that point, Grasha (1996) defined learning styles as personal qualities that influence a learner's ability to acquire information, to interact, and otherwise to participate in learning experiences.

Barrick and Mount (2013) indicated that optimal learning is dependent on a preferred learning style, arguing for the recognition of learning styles as a contributor to overall performance. Given the recognized impact of personality traits on performance, and the link between learning and positive job outcomes as explored by educational researchers and theorists, an opportunity exists to explore the relationship between personality, learning styles and performance. As such, the purpose of this study is to explore the impact of personality based-learning scales on managerial job performance by using measures derived from a widely used psychometric inventory. The following research questions were analyzed via correlation analysis and analysis of variance:

RQ1: Is there a correlation between managerial job performance and learning style preferences, as measured by the personality-based learning scales?

RQ2: Is there a difference in the preference for specific learning styles between higher performing and lower performing managers?

Methods

The sample included 195 participants, representing managers from the general, support, operational, and sales functional areas. Specific job titles held by participating managers included: General Manager, Assistant General Manager and Director of Sales. Participants' performance data were provided by the employer, a hotel management company based in the southeastern US. The performance data were comprised of average ratings assigned by the participants' immediate supervisors. As such, these data provided summary indicators of job performance, summarizing several related elements such as: job knowledge, financial acumen, and leadership effectiveness.

Prior to collecting such performance data, participants completed the Leading Dimensions Profile (LDP), a web-based psychometric inventory that provides a broad measure of

workplace personality style as well as ten specific behavioral dimensions. These dimensions are leveraged in developing selection criteria for certain positions, such as sales and managerial roles (Malan et al., 2015). In practice, employers utilize the LDP dimension scores to determine how candidates and incumbents compare to particular benchmarks associated with higher performers. The LDP is commercially available in the US, Europe, Australia, and India, with specific emphasis on employment selection, training, and development.

For the purposes of this study, LDP dimensions were utilized in deriving measures (psychometric scales) of learning style scales, following the reporting framework of the Index of Learning Styles Questionnaire by Solomon and Felder. The learning style scales included measures of: active-reflective, sensing-intuition and sequential-global learning styles. The active-reflective scale is derived from 9 items, the reliability of which is demonstrated by Cronbach's Alpha of .716 (Mean: 38.69; St. Dev.: 12.10). Active learners would tend to learn best via actively working with the material (such as "hands on"), whereas reflective learners prefer to ponder or reflect on the material prior to working with new concepts.

The sensing-intuition scale is derived from 6 items, the reliability of which is demonstrated by a Cronbach's Alpha of .723 (Mean: 37.02; St. Dev.: 8.62). Sensing learners tend to prefer analyzing facts and clear-cut material, whereas intuitive learners often prefer discovering new possibilities and relationships among concepts. The sequential-global scale is derived from 5 items, the reliability of which is demonstrated by a Cronbach's Alpha of .702 (Mean: 29.36; Dev.: 7.74). Sequential learners tend to prefer embracing new information via a linear, step-by-step process, whereas global learners tend to learn in a nonlinear, often random order based on making their own conceptual connections.

Results

To address the first research question (RQ1), the three learning scales were analyzed for correlation with managerial job performance. The active-reflective scale did not exhibit correlation to managerial performance ratings, while the sensing-intuition scale did exhibit such an association to performance ($r=.189^{**}$). Similarly, the sequential-global scale exhibited correlation to managerial performance ratings ($r=.151^*$) as well.

To address the second research question (RQ2), the learning scales were analyzed using ANOVA, to determine if learning styles differed among managers at contrasting performance levels. Higher performing managers (those with average performance ratings of "high" on a scale of low, moderate, and high) were compared to lower performing managers. Mean scores for the active-reflective learning scale were 43.50 for higher performers and 42.96 for lower performers. Mean scores for the sensing-intuition learning scale were 61.25** for higher performers and 57.28 for the lower performers. Finally, mean scores for the sequential-global learning scale were 60.92** for the higher performers and 57.66 for the lower performers.

Results indicated that higher-performing managers were significantly more likely to follow an intuitive rather than a sensing learning style, and a global rather than a sequential

learning style. There was no significant difference in managers' preference for an active or reflective style based on job performance.

Conclusion

Results indicated that higher-performing managers were significantly more likely to follow a learning style characterized by intuition when compared to a more sensing style. Meaning, higher-performing managers seem to learn best by discovering possibilities with innovative or abstract thinking, while understanding concepts without repetition and structure. Such a finding may have substantive implications for training, development and coaching of new managers within the lodging industry, particularly given the rapid pace of change in managerial roles.

In addition, higher-performing managers were significantly more likely to prefer a “big picture” understanding (characterized by a global, rather than sequential approach) when approaching new information. Such an approach emphasizes a broad, conceptual view that only focuses on smaller, supporting details as needed to reinforce major learning objectives. Such a finding may suggest that, given the diversity and intensity of daily responsibilities, managers must skillfully absorb new information without much structure or support. Practically speaking, they must “think on their feet” to learn and apply new information without being able to set aside time to process and study relevant materials. This may lend support for the assumption that global learners are much more likely to be intuitive than sensing because their thinking processes tend to be nonlinear and they acquire understanding more holistically (Felder & Spurlin, 2005).

There was no significant difference in managers' preference for an active versus a reflective style based on job performance. Generally, high performing managers seem to apply various paces in their learning, likely influenced by the complexity or urgency of the matter at hand. Such a finding might suggest that the rate or pace of learning may fluctuate based on a variety of factors not related to or impacted by job performance.

Finally, this study provides additional support to Felder and Spurlin's (2005) assertion regarding the potential connection between learning style preferences and behavioral tendencies evidenced by learners. As this study addressed learning and performance within a managerial role, future research and application could explore the impact of instructional methods and training technologies on the performance of new and emerging managers – with particular focus on the initial year of their tenure.

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Empirically Testing a New Fama-French Three-Factor Model in the Asia-Pacific Region

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Abstract

This paper investigates the stock returns in the Asia-Pacific region. The sample period is from July 1990 to March 2015. Data are analyzed based on a new model, which introduces non-normal error term of Zhu and Zinde-Walsh (2009) and EGARCH-type volatility of Nelson (1991) into the Fama and French (1993)'s three-factor model. The MLE is used to estimate the parameters. The LR test and the KS test are used for model diagnostics. The AIC is used for model comparison. Empirical results indicate that with EGARCH-type volatility and non-normal error term, the new model performs better than the one in Fama and French (1993). Asymmetric responses to positive and negative shocks are documented. And the estimates of parameters of the standardized standard asymmetric exponential power distribution can capture the skewness, fat-tailedness of stock returns in the Asia-Pacific region.

Keywords: Fama-French three-factor model, standardized standard asymmetric exponential power distribution (SSAEPD), EGARCH, Asia-Pacific region

Introduction

The traditional Capital Asset Pricing Model proposed by Treynor (1961), Sharp (1964) and Lintner (1965) postulates that the market beta is the only risk factor to explain the variation of stock returns. However, empirical tests show that the market beta cannot explain the variation of excess returns on U.S. stocks (Fama and French 1992). Thus Fama and French (1993) adds two more factors, firm size and book-to-market equity, into the CAPM. Their three-factor model is able to explain stock returns better than the CAPM.

After Fama and French (1993), research about the Fama-French three-factor model has been done. This research falls into two categories. One category extends the three-factor model. Carhart (1997) proposes a four-factor model by adding the momentum factor. He finds that stocks that have the best performance over a short period of time tend to keep the best position later. Gharghori, Chan and Faff (2007) add the default factor to capture the default risk. He (2008) introduces a state switch factor into the three-factor model to

explain differences in behavior of stock returns among different states. Xiao, Faff, Garghori and Min (2012) take sustainability into consideration.

Yin (2011) uses asymmetric power distribution (AEPD) of Zhu and Zinde-Walsh (2009) for the error term of the Fama-French three-factor model. Based on Yin's model, Yang (2013) introduces EGARCH-type volatility of Nelson (1992) to suggest a new three-factor model. Yang's new model is capable to show the asymmetric effects between positive and negative asset returns. In this paper, we focus on Yang's new three-factor model.

The other category empirically tests the Fama-French three-factor model with different data. In contrast to voluminous research on variation of stock returns in the U.S. and Europe, limited research has been done in the Asia-Pacific region. Rahman (2006) tests the applicability of the three-factor model in the Bangladesh capital market and finds that the three factors have significant relationship with Bangladeshi stock returns. Taneja (2010) assesses the predictive power of the CAPM and the Fama-French three-factor model in Indian stock returns. Lam (2011) investigates the role of liquidity in pricing stock returns in Hong Kong stock market by adding liquidity into Fama-French three-factor model and Carhart four-factor model.

Our research falls into the second category. In this paper, we apply the new three-factor model proposed by Yang (2013) to explain the variation in stock returns in the Asia-Pacific region. Australia, New Zealand, Hong Kong and Singapore are considered. The purpose of the paper is to

- test whether the 3 factors of the Fama and French(1993) are still alive in Asian market;
- compare the new three-factor model with three-factor model of Fama and French (1993).

Method of the maximum likelihood estimation (MLE) is used to estimate parameters. The likelihood ratio test (LR) and the Kolmogorov-Smirnov test (KS) are used for model diagnostics. The Akaike Information Criterion (AIC) is used for model comparison.

Empirical test shows that

- with EGARCH-type volatility and non-Normal error term, the Fama-French 3 factors are still alive in Asia-Pacific region. EGARCH-type volatility enables the model to respond asymmetrically to positive and negative shocks. And the estimates of SSAEPD parameters can capture skewness, fat-tail characteristics in the data;
- the new three-factor model has better in-sample fit than the traditional Fama-French three-factor model.

Model and Methodology

FF-Normal Model

The Fama-French three-factor model (denoted as FF-Normal) is as follows.

$$R_t - R_{ft} = \beta_0 + \beta_1(R_{mt} - R_{ft}) + \beta_2SMB_t + \beta_3HML_t + u_t, t = 1, 2, \dots, T, \quad (1)$$

$$u_t \sim Normal(\mu, \sigma^2)$$

$\theta = (\beta_0, \beta_1, \beta_2, \beta_3, \mu, \sigma^2)$ are parameters to estimate. R_t is the portfolio return at time t . R_{ft} is the risk-free rate at time t . R_{mt} is the market return at time t . SMB_t is the difference between returns on small market capitalization portfolios and big market capitalization portfolios. HML_t is the difference between returns on high book-to-market portfolios and low book-to-market portfolios. $\beta_0, \beta_1, \beta_2, \beta_3$ are coefficient parameters of the regression model. T is the sample size. The error term u_t is distributed as the normal distribution proposed in De Moivre (1738).

FF-SSAEPD-EGARCH Model

EGARCH-type volatility of Nelson (1991) is introduced into the new three-factor model with non-normal errors distributed as SSAEPD of Zhu and Zinde-Walsh (2009). For convenience, we denote the new model as FF-SSAEPD-EGARCH.

$$R_t - R_{ft} = \beta_0 + \beta_1(R_{mt} - R_{ft}) + \beta_2SMB_t + \beta_3HML_t + u_t, t = 1, 2, \dots, T, \quad (2)$$

$$u_t = \sigma_t z_t, z_t \sim SSAEPD(\alpha, p_1, p_2),$$

$$\ln(\sigma_t^2) = a + \sum_{i=1}^s g(z_{t-i}) + \sum_{j=1}^m b_j \ln(\sigma_{t-j}^2),$$

$$\begin{aligned} g(z_{t-i}) &= c_i z_{t-i} + d_i [|z_{t-i}| - E(|z_{t-i}|)], \\ &= \begin{cases} (c_i + d_i)z_{t-i} - d_i E(|z_{t-i}|), & \text{if } z_{t-i} \geq 0, \\ (c_i - d_i)z_{t-i} - d_i E(|z_{t-i}|), & \text{else.} \end{cases} \end{aligned} \quad (3)$$

$\theta = (\beta_0, \beta_1, \beta_2, \beta_3, \alpha, p_1, p_2, a, \{b_j\}_{j=1}^m, \{c_i\}_{i=1}^s, \{d_i\}_{i=1}^s)$ are parameters to estimate. The error term z_t is distributed as the standardized standard asymmetric exponential power distribution (SSAEPD) proposed by Zhu and Zinde-Walsh (2009). σ_t is the conditional standard deviation, which represents volatility.

Standardized Standard AEPD (SSAEPD)

In the new model, the error term z_t is distributed as the standardized standard asymmetric exponential power distribution (SSAEPD) proposed in Zhu and Zinde-Walsh (2009). The probability density function (PDF) of z_t is:

$$f(z_t) = \begin{cases} \delta \left(\frac{\alpha}{\alpha^*} \right) K(p_1) \exp \left(-\frac{1}{p_1} \left| \frac{\omega + \delta z_t}{2\alpha^*} \right|^{p_1} \right), & \text{if } z_t \leq -\frac{\omega}{\delta}, \\ \delta \left(\frac{1-\alpha}{1-\alpha^*} \right) K(p_2) \exp \left(-\frac{1}{p_2} \left| \frac{\omega + \delta z_t}{2(1-\alpha^*)} \right|^{p_2} \right), & \text{if } z_t > -\frac{\omega}{\delta}, \end{cases} \quad (4)$$

$$\begin{aligned}
 z_t &= \frac{x_t - \omega}{\delta}, \\
 \omega &= E(x_t) = \frac{1}{B} \left[(1-\alpha)^2 \frac{p_2 \Gamma(2/p_2)}{\Gamma^2(1/p_2)} - \alpha^2 \frac{p_1 \Gamma(2/p_1)}{\Gamma^2(1/p_1)} \right], \\
 \delta^2 &= Var(x_t) = \frac{1}{B^2} \left[(1-\alpha)^3 \frac{p_2^2 \Gamma(3/p_2)}{\Gamma^3(1/p_2)} + \alpha^3 \frac{p_1^2 \Gamma(3/p_1)}{\Gamma^3(1/p_1)} \right] \\
 &\quad - \frac{1}{B^2} \left[(1-\alpha)^2 \frac{p_2 \Gamma(2/p_2)}{\Gamma^2(1/p_2)} - \alpha^2 \frac{p_1 \Gamma(2/p_1)}{\Gamma^2(1/p_1)} \right]^2, \\
 K(p_1) &= \frac{1}{2p_1^{1/p_1} \Gamma(1+1/p_1)}, \\
 K(p_2) &= \frac{1}{2p_2^{1/p_2} \Gamma(1+1/p_2)}, \\
 B &= \alpha K(p_1) + (1-\alpha) K(p_2).
 \end{aligned}$$

x_t is distributed as the standard AEPD (SAEPD). And $\Gamma(\cdot)$ is the gamma function. $\alpha \in (0,1)$ is the skewness parameter. $p_1 > 0$ and $p_2 > 0$ are the left and right tail parameters, respectively. The SSAEPD density is skewed to the right for $\alpha < 0.5$ and to the left for $\alpha > 0.5$. When p_1 (or p_2) gets smaller and smaller, the SSAEPD becomes more and more fat-tailed and leptokurtic. When $\alpha = 0.5$ and $p_1 = p_2 = 2$, SSAEPD is reduced to standard normal, i.e. Normal (0, 1).

Method of the Maximum Likelihood Estimation

Parameters are estimated with method of the maximum likelihood estimation (MLE). The maximum likelihood function of the FF-SSAEPD-EGARCH model is

$$\begin{aligned}
 L(\{R_t - R_{ft}, R_{mt} - R_{ft}\}_{t=1}^T; \theta) &= \prod_{t=1}^T f(R_t - R_{ft}) \\
 &= \prod_{t=1}^T \left\{ \frac{\delta}{\sigma_t} \left(\frac{\alpha}{\alpha^*} \right) K(p_1) \exp \left(-\frac{1}{p_1} \left| \frac{\omega + \delta z_t}{2\alpha^*} \right|^{p_1} \right), z_t > -\frac{\omega}{\delta}, \right. \\
 &\quad \left. \frac{\delta}{\sigma_t} \left(\frac{1-\alpha}{1-\alpha^*} \right) K(p_2) \exp \left(-\frac{1}{p_2} \left| \frac{\omega + \delta z_t}{2(1-\alpha^*)} \right|^{p_2} \right), z_t > -\frac{\omega}{\delta}. \right\} \tag{5}
 \end{aligned}$$

Where

$$z_t = \frac{R_t - R_{ft} - \beta_0 - \beta_1(R_{mt} - R_{ft}) - \beta_2 SMB_t - \beta_3 HML_t}{\sigma_t}, \tag{6}$$

$$\ln(\sigma_t^2) = a + \sum_{i=1}^s g(z_{t-i}) + \sum_{j=1}^m b_j \ln(\sigma_{t-j}^2), \quad (7)$$

$$\begin{aligned} g(z_{t-i}) &= c_i z_{t-i} + d_i [|z_{t-i}| - E(|z_{t-i}|)], \\ &= \begin{cases} (c_i + d_i) z_{t-i} - d_i E(|z_{t-i}|), & \text{if } z_{t-i} \geq 0, \\ (c_i - d_i) z_{t-i} - d_i E(|z_{t-i}|), & \text{else.} \end{cases} \end{aligned} \quad (8)$$

Empirical Analysis

Data

In this paper, 25 portfolios of the Asia-Pacific region are analyzed. Data are downloaded from the French's Data Library. The sample period is from July 1990 to March 2015. The descriptive statistics of sample data are calculated by MATLAB and listed in Table 1.

The skewness of 23 portfolios is less than 0, showing negative skewness. For each observation, the kurtosis is more than 3, which indicates that the data are leptokurtic. The P-value of Jarque-Bera test for each portfolio is smaller than 5% significance level. Hence, the stock returns do not follow normal distribution.

Table 1: Descriptive Statistics

Size	Book-to-Market Quintiles										
	Quintile	Low	2	3	4	High	Low	2	3	4	High
Mean											
Small	0.56	0.64	0.9	1.17	1.64		0.46	0.81	1.18	1.24	1.36
2	0.18	0.39	0.69	0.87	1.14		0.98	0.71	1.21	1.23	1.5
3	0.34	0.68	0.94	0.96	1.01		0.6	1.39	1.39	1.1	1.2
4	0.91	1.1	0.79	1.08	1.37		1.53	1.31	1.15	1.54	1.83
Big	0.81	1.05	1.1	0.97	1.2		1.21	1.18	1.14	1.15	0.8
Standard Deviation											
Small	7.99	7.72	7.14	7.01	7.07		-0.25	-0.63	-0.48	-0.33	-0.19
2	6.92	7.4	6.76	6.93	7.44		-0.7	-0.34	-0.63	-0.32	-0.09
3	7.17	6.63	6.8	6.75	7.41		-0.58	-0.77	-0.57	-0.11	-0.12
4	6.54	6.18	6.28	6.57	7.96		-0.94	-0.74	-0.44	-0.34	0.48
Big	6.26	6.06	6.29	6.42	7.87		-0.5	-0.35	-0.19	-0.01	0.52
Kurtosis											
Small	4.39	5.4	5.69	5.58	5.42		0	0	0	0	0
2	5.53	6.97	5.8	5.82	7.13		0	0	0	0	0
3	5.72	6.31	7.17	5.79	7.41		0	0	0	0	0
4	7.67	6.26	6.18	6.22	7.93		0	0	0	0	0
Big	4.86	4.96	4.73	4.65	6.29		0	0	0	0	0
P-Value of Jarque-Bera Test											

Estimation Results

The estimation results for the new model based on 25 Asia-Pacific portfolios are listed in Table 2. According to the results, β_0 representing the abnormal returns ranges from -0.49 to 0.61. β_1 for each portfolio is around 1, indicating that stocks of all 25 portfolios share similar systematic risks with the market. β_2 decreases monotonically as size increases. β_3 increases as B/M quintile increases.

Each skewness parameter α for 25 portfolios is approximately equal to 0.45, which means that after considering the 3 factors and EGARCH-type volatility, the error term of the data shows positive skewness. The left tail parameter p_1 and right tail parameter p_2 of the 25 portfolios are both smaller than 2, which documents the fat-tail characteristics.

The estimates for the FF-Normal model are listed in Table 3. Most β_0 are close to 0. All β_1 are around 1. For each portfolio, the estimate of the location parameter μ is 0. The scale parameter σ varies from 1.59 to 3.43. And the estimates of FF-Normal show no hints about data skewness and fat tailedness.

Table 3: Estimates on FF-Normal

Size	Book-to-Market Quintiles																	
	Quintile	Low 2 3 4 High				β_1				β_2								
		β_0	Low	2	3	4	High	Low	2	3	4	High	Low	2	3	4	High	
Small	0.02 -0.02 0.19 0.39 0.75	β_0	1.06	1.08	1.00	0.98	0.90	1.17	1.13	1.10	1.10	1.23	β_2	0.74	0.87	0.75	0.89	0.97
2	-0.45 -0.39 -0.06 -0.04 -0.02		1.01	1.10	1.01	0.99	0.99	0.51	0.60	0.55	0.49	0.59		0.40	0.17	0.28	0.23	0.28
3	-0.32 -0.03 0.14 0.04 -0.26		1.08	0.98	1.02	1.02	1.04	0.40	0.17	0.28	0.23	0.28		-0.19	-0.16	-0.06	-0.30	-0.34
4	0.15 0.35 0.00 0.03 -0.09		1.00	0.95	0.96	0.99	1.15	β_3	0.00	0.00	0.00	0.00	μ	3.43	2.62	2.07	1.88	2.00
Big	0.07 0.20 0.12 -0.29 -0.41		0.99	0.98	1.00	0.96	1.10		0.00	0.00	0.00	0.00		2.51	2.21	2.01	2.07	2.06
		β_0							0.00	0.00	0.00	0.00	σ	2.76	2.55	2.49	2.38	2.45
									0.00	0.00	0.00	0.00		2.44	2.43	2.46	2.45	2.52
									0.00	0.00	0.00	0.00		1.87	1.59	1.95	1.90	2.67

Model Diagnostics

To test the significance of coefficients in the FF-SSAEPD-EGARCH, the likelihood ratio test (LR) is applied, which is calculated using Equation 9.

$$LR = -2 \ln(\text{likelihood for null}) + 2 \ln(\text{likelihood for alternative}). \quad (9)$$

Tests for Parameters in the Mean Equation

The null hypothesis of the joint significance test is $H_0 : \beta_1 = \beta_2 = \beta_3 = 0$. The results are listed in Table 4. The P-values of the joint significance test for all the 25 portfolios are 0, which means the coefficients of β_1 , β_2 , and β_3 are statistically joint significant under 5%

level. Hence, jointly the three factors can explain variation in stock returns of the Asia-Pacific region during the sample period.

We find out with non-normal errors such as SSAEPD and EGARCH-type volatility, the Fama-French 3-Factor model is still alive. P-values of the LR test for each slope of the three factors are listed in Table 4. Under 5% significance level, the intercept, β_0 , is not significant in 17 out of 25 portfolios; β_1 and β_2 are significant for all 25 portfolios and β_3 is significant for 20 portfolios. Hence, market excess returns, size, and book-to-market ratio have explanatory power for stock variation in the Asia-Pacific. That is, these 3 factors are still alive in the Asian market.

Table 2. Estimates on FF-SSAEPD-EGARCH

Size	Book-to-Market Quintiles																				
	Quintile					Low					2					3					
	β_0					β_1					β_2					β_3					
	Small	-0.12	0.05	0.15	0.34	0.61	1.06	1.06	0.99	0.98	0.91	1.13	1.16	1.09	1.08	1.16	-0.27	-0.09	0.02	0.19	0.53
2	-0.49	-0.34	-0.32	0.00	-0.01	1.05	1.09	0.98	1.01	0.99	0.84	0.89	0.84	0.87	0.98	-0.26	-0.09	-0.09	0.28	0.77	
3	-0.30	-0.07	0.12	0.09	-0.07	1.06	1.00	1.03	0.98	0.98	0.50	0.57	0.57	0.45	0.51	-0.37	-0.17	-0.10	0.10	0.60	
4	0.13	0.25	-0.09	0.11	-0.01	1.00	0.93	0.95	0.96	1.10	0.41	0.18	0.30	0.28	0.32	-0.18	-0.15	-0.20	0.13	0.73	
Big	0.09	0.17	0.11	-0.36	-0.33	0.99	1.01	1.00	0.97	1.12	-0.17	-0.19	-0.08	-0.25	-0.28	-0.41	-0.20	-0.01	0.45	0.87	
	α					p_1					p_2										
Small	0.45	0.45	0.45	0.45	0.45	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
2	0.45	0.45	0.45	0.45	0.45	1.00	1.00	0.99	1.00	1.00	1.00	1.00	0.99	1.00	1.00						
3	0.45	0.45	0.45	0.45	0.45	1.01	0.99	1.00	1.00	1.00	1.01	1.00	1.00	1.00	1.00						
4	0.45	0.45	0.45	0.45	0.45	1.00	1.00	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Big	0.45	0.45	0.45	0.45	0.45	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00	1.00						
	a					b					c					d					
Small	0.00	0.27	0.76	0.34	0.20	1.00	0.87	0.46	0.74	0.85	-0.03	0.08	0.25	0.18	0.16	0.08	0.22	0.20	0.12	0.22	
2	0.58	0.17	0.14	0.07	0.21	0.66	0.88	0.88	0.95	0.84	-0.01	-0.04	-0.01	0.10	0.07	0.52	0.20	0.10	0.29	0.29	
3	0.24	0.08	0.07	0.24	0.28	0.87	0.95	0.96	0.86	0.83	0.07	-0.05	0.01	-0.08	-0.04	0.25	0.12	0.20	0.28	0.51	
4	0.11	2.25	0.07	0.12	0.06	0.94	-0.35	0.98	0.92	0.96	-0.02	0.26	-0.11	-0.07	-0.07	0.08	0.54	0.25	0.32	0.14	
Big	0.05	0.04	0.09	0.03	0.07	0.95	0.93	0.95	0.97	0.96	0.02	-0.01	0.03	0.01	-0.10	0.26	0.43	0.27	0.16	0.13	

Table 4: P-values of Likelihood Ratio Test (LR)

Size	Book-to-Market Quintiles									
	Quintile	Low	2	3	4	High	Low	2	3	4
$H_0: \beta_1 = \beta_2 = \beta_3 = 0$										$H_0: \beta_0 = 0$
Small	0*	0*	0*	0*	0*	0.09	0.31	0.81	0.13	0.00*
2	0*	0*	0*	0*	0*	0.00*	0.45	0.00*	0.49	0.72
3	0*	0*	0*	0*	0*	0.03*	0.07	0.33	0.22	0.72
4	0*	0*	0*	0*	0*	0.04*	0.00*	0.62	0.91	0.40
Big	0*	0*	0*	0*	0*	0.40	0.05	0.02*	0.00*	0.04*
$H_0: \beta_1 = 0$										$H_0: \beta_2 = 0$
Small	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
2	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
3	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
4	0*	0*	0*	0*	0*	0*	0*	0*	0*	0*
Big	0*	0*	0*	0*	0*	0*	0*	0.01*	0*	0*
$H_0: \beta_3 = 0$										$H_0: \alpha = 0.$
Small	0.00*	0.07	0.19	0.00*	0.00*	0.00*	0.18	0.01*	0.01*	0.03*
2	0.00*	0.02*	0.00*	0.00*	0.00*	0.60	0.76	0.02*	0.55	0.02*
3	0.00*	0.00*	0.10	0.01*	0.00*	0.68	0.92	0.02*	0.28	0.43
4	0.21	0.00*	0.00*	0.00*	0.00*	0.74	0.97	0.66	0.13	0.74
Big	0.00*	0.00*	0.05	0.00*	0.00*	0.40	0.30	0.33	0.13	0.57
$H_0: p_1 = 2$										$H_0: p_2 = 2$
Small	0.00*	0.71	0.00*	0.44	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
2	0.00*	0.00*	0.00*	0.00*	0.00*	0.54	0.10	0.33	0.00*	0.00*
3	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
4	0.00*	0.00*	0.00*	0.00*	0.00*	0.34	0.37	0.10	0.05*	0.00*
Big	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.35	0.00*
$H_0: a = 0$										$H_0: b = 0$
Small	0.42	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
2	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
3	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
4	0.03*	0.00*	0.00*	0.00*	0.00*	0.00*	0.04*	0.00*	0.00*	0.00*
Big	0.00*	0.18	0.00*	0.01*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
$H_0 : c = 0$										$H_0: d = 0$
Small	0.33	0.29	0.18	0.34	0.12	0.03*	0.00*	0.00*	0.12	0.00*
2	0.33	0.25	0.00*	0.09	0.20	0.00*	0.06	0.00*	0.00*	0.01*
3	0.06	0.01*	0.86	0.22	0.48	0.05	0.27	0.38	0.09	0.00*
4	0.67	0.06	0.02*	0.20	0.12	0.00*	0.00*	0.11	0.00*	0.00*
Big	0.74	0.60	0.05*	0.55	0.04 *	0.00*	0.01*	0.01*	0.06	0.18

Tests for Parameters in the EGARCH Equation

In this part, restrictions on the parameters in the EGARCH equation are tested with the likelihood ratio test (LR). P-values of the LR test are listed in Table 4. The null hypotheses are $H_0 : a = 0$, $H_0 : b = 0$, $H_0 : c = 0$ and $H_0 : d = 0$. We found that most P-values of the

LR test for individual parameters related to the EGARCH-type volatility are less than the significance level 5%. This means that the parameters are individually significant. Actually, a is significant for 23 out of 25 portfolios. b is significant for all 25 portfolios. And d is significant for 16 portfolios. Thus, the EGARCH-type volatility should be included in the model.

Tests for Parameters in SSAEPD

Parameters in the SSAEPD are also tested and the results show strong non-normality. For example, the results of tests for $H_0 : p_1 = 2$ and $H_0 : p_2 = 2$ reject the null hypotheses for 23 and 25 portfolios. Hence, normal distribution cannot fit the residuals well.

Residual Check

In this subsection, the residuals for previous models are checked with both Kolmogorov-Smirnov test and graphs. Results show that 18 out of the 25 portfolios have residuals which do follow SSAEPD. That means the FF-SSAEPD-EGARCH model is adequate for the data.

Kolmogorov-Smirnov test

To check the residuals, the Kolmogorov-Smirnov test (KS) is employed. The null hypothesis of the KS test is $H_0 : \text{data follow a specified distribution}$. If the P-value of the KS test is bigger than 5% significance level, the null hypothesis is not rejected. Otherwise, it is rejected.

Given the estimates $\hat{\alpha}, \hat{p}_1, \hat{p}_2$, the null hypothesis is $H_0 : \text{FF-SSAEPD-EGARCH residuals are distributed as } SSAEPD(\hat{\alpha}, \hat{p}_1, \hat{p}_2)$. The P-values of the KS test for FF-SSAEPD-EGARCH are listed in Table 5. The null hypothesis cannot be rejected for 18 out of the 25 portfolios. Hence, the errors of the Fama-French 25 portfolios do follow SSAEPD. And the FF-SSAEPD-EGARCH model is adequate for most Fama-French 25 portfolios.

PDFs of Residuals

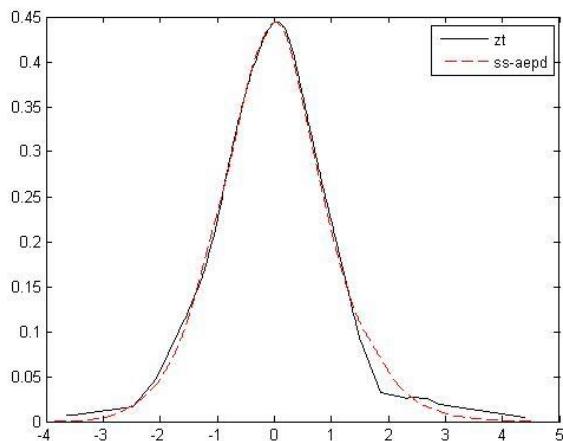
In this part, the empirical PDF of residuals is compared with the theoretical PDF of SSAEPD. Take the portfolio in the third size quintile and the first B/M quintile as an example. In Figure 1, the probability density function (PDF) for the estimated residuals z_t in the FF-SSAEPD-EGARCH and that of $SSAEPD(\hat{\alpha}, \hat{p}_1, \hat{p}_2)$ are plotted. These curves are close to each other, showing that the FF-SSAEPD-EGARCH model fits the data well.

The PDF for the estimated residuals u_t in the FF-Normal and that of $Normal(\hat{\mu}, \hat{\sigma}^2)$ are also shown in Figure 1. Huge differences exist between these two curves, which means that normal distribution does not fit the residuals well.

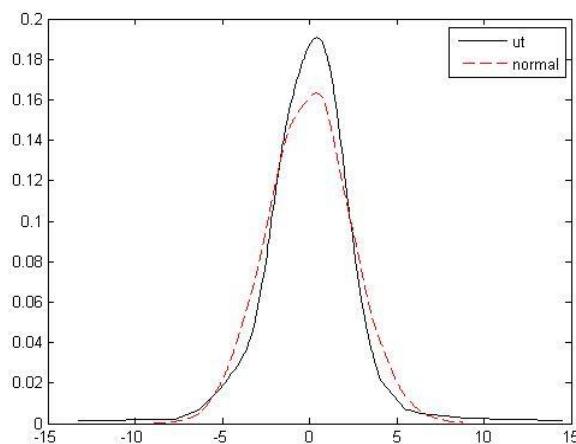
Table 5: P-Values of the KS Test for Residuals

Size	Book-to-Market Quintile				
	Low	2	3	4	High
FF-SSAEPD-EGARCH					
Small	0.01*	0.33	0.34	0.11	0.21
2	0.01*	0.04*	0*	0.16	0.18
3	0.06	0.07	0.14	0.16	0.23
4	0.02*	0.02*	0.08	0.05	0.07
Big	0.16	0.06	0.12	0.02*	0.63

Note: * means the residual doesn't follow the specified distribution under 5% significance level.



a) PDFs of the Residuals (FF-SSAEPD-EGARCH) and $SSAEPD(\hat{\alpha}, \hat{p}_1, \hat{p}_2)$



b) PDFs of the Residuals (FF-Normal) and $Normal(\hat{\mu}, \hat{\sigma}^2)$

Figure 1: Comparisons of PDFs

Model Comparison

In this subsection, the FF-Normal model and the FF-SSAEPD-EGARCH model are compared by the Akaike Information Criterion (AIC). The AIC values are listed in Table

6. The AIC Values show that 16 out of 25 portfolios in the FF-SSAEPD-EGARCH model are less than those of the FF-Normal model. Hence, generally, the FF-SSAEPD-EGARCH model has better in-sample fit than the FF-Normal model.

Table 6: Values of the Akaike Information Criterion (AIC)

Size	Book-to-Market Quintile									
	Quintile	Low	2	3	4	High	Low	2	3	4
FF-SSAEPD-EGARCH										FF-Normal
Small	5.39	4.76	4.33	4.13	4.10	5.35	4.80	4.34	4.14	4.26
2	4.75	4.57	4.45	4.27	4.32	4.72	4.46	4.27	4.33	4.32
3	4.89	4.74	4.70	4.57	4.43	4.91	4.75	4.70	4.61	4.67
4	4.79	4.65	4.64	4.69	4.66	4.66	4.65	4.68	4.67	4.73
Big	4.15	3.73	4.26	4.09	4.73	4.13	3.80	4.21	4.16	4.84

Conclusions and Future Extensions

In this paper, we empirically test a new Fama-French three-factor model proposed by Yang (2013) for the Asia-Pacific stock returns. For model comparison, the three-factor model of Fama and French (1993) is also tested. We analyze stock returns of the Asia-Pacific region from July 1990 to March 2015. Method of the maximum likelihood estimation (MLE) is used to estimate parameters. The likelihood ratio test (LR) is used to test the significance of parameters. The Kolmogorov-Smirnov test (KS) is used to check the residuals. Models are compared by the Akaike Information Criterion (AIC).

Our results show that 1) with EGARCH-type volatility and non-normal error term, the Fama-French three-factors are still alive in the Asia-Pacific region. EGARCH-type volatility enables the model to respond asymmetrically to positive and negative shocks. And the estimates of SSAEPD parameters can capture skewness and fat-tail characteristics in the data. 2) The FF-SSAEPD-EGARCH model has a better in-sample fit than the model of Fama and French (1993).

Future extensions include but are not limited to the following: First, other types of volatility such as the TGARCH-type volatility or the stochastic volatility (SV) can be introduced to the model. Second, portfolios of other countries and regions can be analyzed. Lastly, our results can be compared with those from other models such as the ARIMA model.

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The Relationship between Corporate Social Responsibility and Organisation Performance: Evidence from Nigeria

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Abstract

Businesses are eager to present themselves as honest and reliable corporate citizens who care about the overall well being of society. This research is on the relationship between CSR and Organisation performance of listed companies in Nigeria. The research will attempt to answer the question of whether socially active Nigerian listed companies perform better than less socially active or inactive companies. The research will commence by first extracting the social role conceptions (CSR) of the companies from the respective Annual reports of Nigeria Stock Exchange (NSE) 30 listed companies and then comparing this data to their respective financial performance. The researcher intends to utilise financial performance metrics such as, Earnings per Share (EPS), Price Earnings Ratio (P/E ratios) and Economic Value Added (EVA). The data source of this piece of work will be secondary data from companies' Annual Reports. The sample size of this piece of work will be the NSE 30 listed companies on the Nigeria Stock Exchange (NSE) over a 10-year period between 2005-2014. Statistical techniques will be used to analyse this relationship. The researcher will utilise Content Analysis in ranking using available assessable secondary data from the Annual Reports of listed Nigerian companies. The framework of this research will be aligned in accordance with the Stakeholder theory and the variables for CSR will also be derived from the Global Reporting Initiative (GRI) Index. In order to reduce the effect of the shortcomings of Content Analysis in quantifying CSR, the researcher will also utilise Reputation Index.

Keywords: CSR, organisational performance, stakeholders.

Perception of Wrongdoing and Villianization: Effects of Police and Minority Group Socialization

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Abstract

It seems that every night while reading our newspapers or listening to our televised evening news we hear of another police officer/minority confrontation that leads to a violent ending. After each incident there are a legion of people who loudly voice their opinion that proper action needs to be taken. Government officials at all levels, police agencies, minority group leaders, and concerned citizens alike are calling for investigations, policies, and training programs that will stop such horrific incidents. Rationality tells us that these solutions should be based on a thorough evaluation of the facts to determine what was done “right” and what was done “wrong” and by whom. In so doing we can then take actions that will address the problem. The astounding phenomena is that while many people view or review the same facts and say they want “proper action” to be taken, there is a very large deviation between perceptions of people on what constitutes wrongdoing and what is the “proper action” to take. While the perception of “rationality” is noble, in reality individuals will individually determine their version of rationality or “bounded rationality.” Individuals who view or review the facts of police/citizen confrontation cases will make a determination of what they see as wrongdoing and who they see as the perpetrator of that wrongdoing. Once an individual is perceived to be the wrongdoer or “villain,” past social research has suggested that we feel more comfortable with that individual being punished or treated with less respect, which in the present article will be referred to as “villianization.” While past social research has defined organizational and cultural socialization and their beneficial effects, little research has focused on how strong socialization processes can produce negative outcomes such as diversity in in-group/out-group perspectives and/or “villianization.” The current article addresses that void by proposing that an individual’s perception of wrongdoing, the identity of the wrongdoer, and the subsequent treatment of the wrongdoer may be a result of a strong socialization process. Specifically, this article will explore the socialization process of police officers and the cultural socialization process of minorities to offer a suggestion of why there is such a diversity of opinion between what constitutes ethical, moral, and/or proper behavior in police/minority confrontations. It is intuitively obvious that this type of knowledge is important when designing strategies, policies, training sessions, etc. that will address the omnipresent situation we now have in police/minority conformations. This knowledge will also be very useful in the future studies of organizational behavior in a more diverse environment.

Keywords: socialization, rationality, villianization

Media Multitasking Using Multiple Screens: A Case Study in Turkey

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Abstract

The main purpose of this study was to examine the relationship between demographics and in-home second screen usage of Turkish consumers. The study also investigated the devices used to perform certain activities on the second screen. Online questionnaires were used to ask 1000 respondents about their in-home media activities, especially while they are watching TV. The results of analyses showed that age, marital status and education level have significant relationships with second screen usage. Respondents who are more likely to use second screen are the ones who own smart phones, cell phones and laptops. More than half of the respondents indicated that they use second screen to communicate with their families and friends through their mobile phones while watching TV.

Keywords: media multitasking, behavior of media consumers, multiple screens

Introduction

The growing phenomenon of ‘multitasking’ refers to the act of attending to two or more parallel tasks (Judd and Kennedy, 2011). Multitasking involves not only switching between tasks (Srivastava, 2013) but also focusing on multiple tasks simultaneously (Lee and Taatgen, 2002). Similarly, media multitasking is the act of consuming media content while engaging in a media or non-media task (Duff *et al.*, 2014).

In recent years, there has been a fundamental shift in modern media landscape. There are more media consumption options available than ever before. With these increasing options, there has been a rise in media multitasking (Cain and Mitroff, 2011). The advancement of digital devices also allow people to switch frequently between media, such as instant messaging while watching television, or checking emails while downloading a game (Foehr, 2006). To keep up with these changes, advertising practitioners and researchers need to better understand the strengths and weaknesses of each medium as well as how consumers’ process information from various media (Dijkstra *et al.*, 2005). This is important especially to communicate the messages effectively. Moreover, researchers and practitioners need to understand media multitaskers in different cultures since their multiple screen behavior differ from each other.

Despite the growing body of research and attention on simultaneous media use, there is not enough research that explores the trend of multiple screen usage habits in different cultures. We chose Turkey as the context of this study since it is a developing country with a young

population who has a growing interest in media technologies. We aim to contribute to the stream of research on cross-cultural media consumption.

Literature Review

Because of the limited capacity of human being, the ability of multitasking can be seen as inefficient. It is nonetheless a widespread and growing phenomenon. Media multitasking constitute a subset of the divided attention paradigm; at least two tasks must exist in this situation, one of which is primary and the other one is secondary. While people process information mainly from the primary task (Srivastava, 2013), they also work on secondary tasks such as non-media (e.g., eating, shopping), or media (e.g., text-messaging while online shopping) activities (Ryu, 2014). According to Patricia Greenfield as cited by Wallis (2010), there are three types of media multitasking:

- Combining media with a real-life interaction, such as texting at the dinner table.
- Combining two or more types of media at the same time, such as listening to the radio while text messaging.
- Engaging in multiple tasks within a single medium, such as listening to iTunes while checking e-mail.

According to common classification of multitasking, two types of multitasking can be identified. The first one is ‘multitasking with media’ where an audience combines media use with the other non-media practices like eating (Jeong and Fishbein, 2007). Several studies on multitasking with media have examined its impact on learning. These studies showed that multitasking with media has negative impact on performance (Adjei, 2013).

The second one is ‘media multitasking’, which is defined as simultaneous use of multiple media at a single point in time (Pilotta *et al.*, 2004; Foehr, 2006). The pattern of media behavior includes both cases of handling two or more media simultaneously, for instance, reading a magazine and watching TV as well as converging media practices by means of the same medium, such as reading an online newspaper and watching video content on the same computer (Ryu, 2014). Prior research on media multitasking has focused on psychology (Becker *et al.*, 2012), perception (Cain and Mitroff, 2011), multitasking behavior (Carrier *et al.*, 2009; David *et al.*, 2013; Duff *et al.*, 2014; Ie *et al.*, 2012; Jeong and Fishbein, 2007; Judd and Kennedy, 2011; Kononova, 2013; Lui and Wong, 2012; Roberts and Foehr, 2008; Rosen *et al.*, 2013), consumer responses (Dijkstra *et al.*, 2005) and advertising (Voorveld, 2011; Adjei, 2013; Ryu, 2014). Several studies on media multitasking have predominantly focused on media consumption behaviors.

Carrier *et al.* identified (2009) 12 different tasks for multitasking that were typically done at home. These 12 tasks were: surfing the world-wide web, doing offline computing, emailing, instant messaging/online chatting, using the telephone, text messaging, playing video games, listening to music, watching television, eating, reading books and magazines for pleasure, and talking face to face with someone (talking in-person). Similarly, Tokan and Mattila (2011) described common combinations with media depending on the context of use, as shown in Table 1 below. The study highlights the most common multitasking with media practices of participants that are mentioned during the interviews.

Table 1: Media Multitasking Combinations in Different Context

Context	Media	Non-media
Home	Music (computer)	Household chores, cooking
	TV series (offline)	Eating (alone/together), communicating
	Internet browsing (computer)	Eating (alone)
	TV live broadcast	Communicating
Commute	Music (phone)	Commute (active) / Commute (passive)
	Music (portable music player)	Commute (passive)
	Internet browsing (phone)	
	Newspaper Games (phone)	
School	Music (car audio)	Drive, communicate
	Phone call	
School	Internet browsing Instant messaging	School work, lecture
	Music (computer, phone, portable, music player)	School work on computer
Work	Music Phone call Internet browsing (computer)	Work tasks, communicating with colleagues
Social	Phone call	Shopping
	Music (phone)	
	Music (portable music player)	
	Internet browsing (phone)	Communicating with friends

Source: Tokan and Mattila, 2011.

With the increasing media consumption options in the last few decades, there has been a rise in media multitasking. The media environment is rapidly becoming more complex. Along with an increasing diversity in content, various ways have appeared for the audience to acquire the content easily (Collins, 2008). Especially, the variety of digital devices encouraged media multitasking such as instant messaging while watching television, or checking emails while downloading a game (Foehr, 2006). Young people have been engaging in media multitasking mostly with computers, cell phones, game stations, and televisions (Burak, 2012). Research also found out that adults, just like youngsters, spend an important portion of their time allocated to media by engaging in multitasking (Jeong and Fishbein, 2007). Srivastava (2010) identified fourteen media combinations that are used through media multitasking; namely, recorded music/radio, recorded music/TV, recorded music/cellphone, recorded music/print, recorded music/internet, TV/radio, TV/print, TV/cellphone, TV/internet, internet/print, internet/radio, internet/cellphone, print/cellphone, radio/cellphone.

In home media practices are by far the most important since they are conducted during the leisure time of media consumers. For example, an older and still popular medium, the television, is a widespread household item, regardless of income level, ethnic background etc. (Gutnick *et al.*, 2011). As of late, television-related technologies have also vastly progressed. Consumers have started to move from having passive roles in one way broadcasts to being a part of an interactive media experience. Thus, TV consumers began to have more control on the TV content. They experience media multitasking practices as well, such as browsing the web while watching TV (Fleury *et al.*, 2012). Studies show that media consumers are more likely to multitask with broadcast, such as television or radio

and online media, rather than print media, such as newspapers or magazines (Jeong and Fishbein, 2007).

Technology interaction, particularly participating in online activities, is made possible by stationary devices including desktop and laptop computers or video game consoles (Rosen *et al.*, 2013). The increase in computer usage occurred mainly after the transition from desktop to laptop computers, by also making it easier for media consumers to use both computer and television simultaneously (Brasel and Gips, 2011). There is a wide variety of content available on the Internet. Desktops and laptops that are connected to the internet allow consumers to engage in various activities such as listening to music, viewing television shows and playing games, and as a result absorb more media in less time. Besides all these, the dramatic rise of social media services, such as Facebook, and Twitter, allow consumers to connect to each other fast and easily, and discuss various topics online (Lochrie and Coulton, 2012).

The advent of portable technology which consists of small and pocket size tablets, MP3 players, smartphones and other wireless mobile phones also changed the landscape of media environment. With a Wi-Fi enabled mobile device, people can do all types of traditional computing activities at anytime and from anywhere (Rosen *et al.*, 2013). Furthermore, the integration of television and mobile technologies are rapidly forming the new in-home media activity (Fleury *et al.*, 2012). Portable technologies ease the media multitasking and alter the habits of how media consumers use media to communicate with their colleagues, families, and friends (David *et al.*, 2013).

Consumers differ in media multitasking due to several differences between national markets such as infrastructure, technology diffusion or socioeconomic environment (Kononova, 2013). A better understanding of how people consume media and combine various media tools can nurture the media industry, advertising industry, as well as academic research on consumer psychology and digital consumer behavior. Despite the growing body of research on media multitasking, only a few studies have explored the trend of multiple screen usage habits in different cultures.

This study is conducted in Turkey in 2015 because of the growing use of technologies. According to Turkish Statistical Institute (TSI) Bulletin (www.tuik.gov.tr), the internet usage rate increased from 48.9 percent to 53.8 percent in 2014. On the other hand, the percentage of households which have internet access was 60.2 percent in 2014. 92.5% of Turkey's population (approximately 77 million) has mobile phone devices in 2015. 58 percent of population in Turkey uses mobile phones for internet access. Furthermore, computer usage in Turkey was 94.4 percent in 2014 (www.tuik.gov.tr). Consequently, internet penetration for all devices has been growing fast in Turkey over the recent years.

Methodology

Media multitasking is related to the psychological processes of giving attention, switching tasks, and recalling information from memory (Ryu, 2014). It almost certainly affects media planning, advertising practitioners and, advertising effectiveness. The effectiveness of simultaneous exposure to cross-media campaigns is examined by Voorveld in 2011 (i.e.,

combining online and radio advertising). As a result, the participants in the internet-radio combination had more positive brand attitudes, changed their brand attitudes in a more positive manner, and had higher purchase intentions (Voorveld, 2011). According to Pilotta *et al.* (2004), the practitioners must take into account the simultaneous media usage of consumers to achieve higher return on their investment in advertising. So, it is important to examine the media consumers' behavior.

Having been considered the rise of multitasking behavior in developing countries, Turkey is chosen to analyze media consumption behavior. Multitasking with media is ignored in this study due to the fact that it is the combination of only one media source with daily routine activities, which makes it difficult to measure. In addition, because of the difficulty of determining the media multitasking by means of the same medium, this study focuses on usage of media devices at the same time. Thus, the main purpose of this study is to examine the relationship between demographics and in-home second screen usage of Turkish consumers. In other words, the study tries to determine who are more likely to use second screen while watching TV at home and which media devices are used to perform certain activities on the second screen. Therefore, it is attempted to conduct an empirical study to thoroughly understand in-home media activities in terms of consumers' use of multiple screens.

Sample and Data Collection

Simple random sampling was used in this study to have a good representation of Turkey's population. Questionnaires were sent to 1000 respondents via Survey Monkey. The respondents are mostly the residents of Istanbul, which is a metropolitan city that attracts immigrants from all other cities of Turkey. A total of 982 completed questionnaires were obtained and deemed to be valid for analysis.

Questionnaire Design

Survey research was conducted with uniform and structured questionnaires. The questionnaire consists of two parts. The first part includes demographic questions, while the other part includes questions on second screen use. Because TV is a commonly used device at homes, this study prefers to specify TV as the primary screen (or device). Accordingly, in the second part, respondents are first asked what type of media devices they use and whether they use a second screen while watching TV. With these first two questions, it is aimed to understand which media devices are used as a second screen. The options of other devices include desktop computers, laptop computers, mobile phones, smart phones and tablet computers. These options were chosen based on the literature review since it is shown that media consumers are more likely to multitask with broadcast and online media rather than print media. Therefore, print media is ignored in this study. Also, online activities are found to be conducted primarily through stationary devices including desktop and laptop computers. Thus, in this study, desktop and laptop computers are determined as secondary screen. Moreover, the advent of portable technology changed the landscape of media, and expedited media multitasking accordingly. Thus, mobile phone and tablet computer are selected as secondary screen due to their widespread use in Turkey. Lastly, the 'smart mobile phone' was added to the options since it gives a wide range of opportunities to users in terms of conducting various activities.

The respondents, who claimed that they use second screen while watching TV, are asked about the activities they engage in. We listed several options that are identified based on the literature review. For example, accessing the internet on a laptop/computer or mobile phone/tablet computer is listed as an option for secondary task. Also, because of the dramatic rise of social media services that enable debates around a range of topics, commenting on the videos that are watched on social networking sites is included as an option. Moreover, calling or sending text messages to family/friends is added since cell phones and smart phones are easily used regardless of where people are.

Findings

The demographics of the sample are shown in Table 2 below. Approximately, 51% of the sample is male. The age groups including 25-34 and 35-44 dominate the sample with 28% and 23% respectively. Respondents who are married or living together are about 61% of the sample. People who are not working are also about 61% of the sample, including a considerable number of students. The percentages regarding education levels are approximately 34% for primary school graduates, 27% for secondary school graduates, 26% for high school graduates and 12% for university graduates. Table 2 also shows that 34% of the sample use second screen while watching TV at home.

Table 2: Sample Demographics

			Total Sample	Second Screen
Gender	Total Sample	Sample	982	335
		%	100	34.1
Gender	Male	Sample	479	165
		%	48.7	49.3
Gender	Female	Sample	503	170
		%	51.3	50.7
Age	15-17	Sample	108	43
		%	11	12.8
Age	18-20	Sample	93	39
		%	9.5	11.6
Age	21-24	Sample	99	41
		%	10.1	12.2
Age	25-34	Sample	279	98
		%	28.4	29.3
Age	35-44	Sample	221	69
		%	22.5	20.6
Age	45-54	Sample	115	29
		%	11.7	8.7
Age	55+	Sample	67	16
		%	6.8	4.8
Marital Status	Married / Living Together	Sample	601	176
		%	61.2	52.5
Employment Status	Single	Sample	381	159
		%	38.8	47.5
Employment Status	Working	Sample	382	132
		%	38.9	39.4
Education	Not working	Sample	600	203
		%	61.1	60.6
Education	University Graduate	Sample	117	54
		%	11.9	16.2
Education	High School	Sample	253	94
		%	25.8	28
Education	Secondary School Graduate	Sample	268	96
		%	27.3	28.6
Education	Primary School Graduate	Sample	333	87
		%	33.9	26
Education	No Formal Education	Sample	11	4
		%	1.1	1.2

To determine the relationship between socio-demographic variables and the second screen usage, Chi-square analysis were performed. Chi-square analyses were conducted at 0.05 significance level. The results of the analyses are shown in Table 3.

Table 3: Relationships between Demographics and Second Screen Usage

Independent variables	N	X ² value	SD	Significance	Result
Gender	982	.0458*	1	< 3.84	H ₀ (There is no significant relationship between gender and second screen usage) is accepted.
Age	982	14.5609*	6	>12.59	H ₀ (There is no significant relationship between age and second screen usage) is rejected.
Marital Status	982	16.0748*	1	>3.84	H ₀ (There is no significant relationship between marital status and second screen usage) is rejected.
Working Status	982	.0542*	1	<3.84	H ₀ (There is no significant relationship between working status and second screen usage) is accepted.
Education Level	982	18.4115**	4	>9.49	H ₀ (There is no significant relationship between education level and second screen usage) is rejected.

*The percentage of cells which are expected to have a value under 5 is %0.

** The percentage of cells which are expected to have a value under 5 is %10.

As it is pointed out in the literature, gender is not a significant predictor of media multitasking (Kononova, 2013). In this study, a significant relationship between gender and second screen usage was not found either. There is also no significant relationship between working status and second screen usage. However, age was found to be a significant predictor of second screen usage. The differences between the percentages of second screen users among certain age groups give clue about this significant difference. For example, 42% of 18-20 age group uses second screen whereas only 24% of 54+ age group uses second screen. This finding is again in line with the literature, especially with the studies which show that young people, when compared to adults, mostly engage in instant messaging as a second task (Judd and Kennedy, 2011). Also, the results indicated that there is a significant difference between single individuals and married couples regarding second screen use. Again, when the percentages of second screen usage among these two groups, i.e. 42% for singles and 29% for married couples, are examined, the difference can be easily seen. In addition, just like age and marital status, education level is a significant predictor of second screen use. For instance, while only 26% of primary school graduates use second screen while watching TV, 46% of university graduates use second screen. Overall, these findings are important for further research to examine the reasons behind these differences among various groups with respect to age, marital status and education level.

In this study, second screen use among different device owners and the activities performed with different media devices that are used as second screens are examined as well (Table 4 and Table 5). Respondents could choose more than one option; this is why the total of owners of different devices is more than the number of sample size.

Table 4: Second Screen Use among Different Device Owners

		Total Sample	Cell phone owners	Smart phone owners	Desktop owners	Laptop owners	Tablet PC owners
Total Sample	Sample	982	485	428	275	263	65
	%	100	49.3	43.5	28	26.7	6.6
Second screen	Sample	335	126	200	110	127	34
	% vert	34.1	25.9	46.7	40	48.2	52.3
Second screen	Sample	335	126	200	110	127	34
	% hori	34.1	37.6	59.7	32.8	37.9	10.1

Table 5: Percentages of the Activities Performed by Different Media Devices

		Total Sample	Cell phones	Smart phones	Desktop	Laptop	Tablet PC
	Sample	335	174	209	114	131	35
	%	100	100	100	100	100	100
Access the internet on a laptop/computer	Sample	121	41	75	44	66	17
	%	36.1	23.6	35.9	38.6	50.4	48.6
Access the internet on a mobile phone/tablet computer	Sample	151	30	119	48	65	20
	%	45.1	17.2	56.9	42.1	49.6	57.1
Comment on the programs you are watching on social networking sites	Sample	74	23	48	23	30	6
	%	22.1	13.2	22.9	20.2	22.9	17.1
Phone or send text messages to your friends/family	Sample	208	110	91	49	52	14
	%	62.1	63.2	43.5	42.9	39.7	40

Among the whole sample, the usage of cell phone (49.3%) outnumbered the usage of other devices. However, smart phone usage (46.7%) was the highest among second screen users. The results showed that while one in every four people owning cell phones use second screen, one in every two people owning smart phones use second screen. The results also indicated that people who use smart phones (46.7%), tablets (52.3%) and laptops (48.2%) tend to engage in media multitasking more than people who use desktops (40%) and cell phones (25.9%) (Table 4).

Briefly, the percentages of activities that are enjoyed with a second screen while watching TV are as follows: 36.1% of people access the internet from a laptop/computer; 45 % of people access the internet from a mobile phone/table computer; 22.1% of people comment on the videos that are watched on social networking sites and lastly, 62.1% of people call or send messages to their families or friends. Thus, more than half of the respondents who use second screen communicate with their families and friends via their phones while watching TV. As it is expected, laptop and tablet PC owners tend to access the internet on a laptop/computer more while watching TV than others. Laptop and smart phone owners are more likely to comment on the programs they are watching on social networking sites while watching TV. Lastly, cell phone owners are more likely to phone or send text messages to their friends or family.

Conclusion

To briefly summarize, the findings of the study show that age, marital status and education level have significant relationships with in-home second screen use. Respondents who are more likely to use second screen while watching TV are the ones who own smart phones, cell phones and laptops. More than half of the respondents indicated that they use second screen to communicate with their families and friends through their mobile phones. Almost the other half indicated that they use second screen to access the internet on a mobile phone/tablet computer while watching TV.

On the whole, this study examined the role of demographics and specific consumer habits on second screen usage. The study shows that media multitasking is an increasing trend in developing countries too, especially with their young populations. The study also provides valuable insights to advertising practitioners in terms of efficiently splitting their advertising efforts for different media devices as well as various consumer groups. Just like other studies, this study also has some limitations. For example, the authors focused solely on simultaneous media use in media multitasking area. Hence, multitasking with media as well as simultaneous media practices with the same medium can be fruitful areas to examine. The study is also limited to demographics and specific consumer habits regarding second screen use. Future studies may take the present study a step further by examining the role of psychographics on media multitasking. Print media, MP3 and game consoles can also be included to see their influence on media multitasking. Lastly, this study can be conducted in different countries to contribute more to the cross-cultural media studies.

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The Relationship between Fiscal Policies and Economic Growth: Is it asymmetric for the case of UK?

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Abstract

There has been a revival of interest in fiscal policy issues following the 2008-09 global financial crisis, particularly in light of the substantial fiscal stimulus packages that were put in place in many countries in response. Furthermore, the effects of economic growth on fiscal policies have been intensively investigated recently. Yet, there is no consensus about the comparative size and sign of the response of economic growth to different fiscal impulses and the response of fiscal policy to different economic growth performances. Uncertainty about these issues raises several critical questions that constitute major challenges for policy makers across the world. Using data from the UK, the objective of this study is to examine the possible asymmetries in the effects of big versus small and negative versus positive fiscal policy shocks on economic growth and vice versa. For this purpose, this study utilizes an extension of smooth transition autoregressive (STAR) model of Teräsvirta (1994) and The Generalized Impulse Response Functions (GIRF), introduced by Koop et al. (1996). The results of this study suggest that the dynamic interaction between economic growth and fiscal variables is inherently nonlinear and the domestic debt position can be the main source of this nonlinearity. Moreover, the calculated GIRFs reveal the following findings. First, fiscal contractions might be expansionary and fiscal expansions might be contractionary during the first fifteen months after the fiscal shock. However, after the first three months the effects of fiscal expansions and fiscal contractions on the growth decline dramatically. Second, there is no asymmetry in the effects of big versus small positive and positive versus negative small revenue shocks on growth, while big negative shocks to revenue have smaller effects on the growth comparing to the small negative shocks. Third, there are subtle asymmetries in the effects of big versus small and positive versus negative spending shocks on the growth. Fourth, the revenue responses to big versus small and positive versus negative growth shocks are not asymmetric. Fifth, the spending responses to big versus small positive growth shocks are not asymmetric while positive versus negative growth shocks are dramatically asymmetric. Lastly, revenue shocks have more effect on growth than spending shocks. As a conclusion, the analyses in this study result in both a “menu” for fiscal policy that fiscal policy authorities can refer to in promoting economic growth and cyclical features of fiscal policy and their implications.

Keywords: fiscal policy, economic growth, nonlinearity

The Effect of Technology Innovation on Firm Performance through Business Models: From an Ambidexterity Perspective

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Abstract

Anchored in the booming business model literatures, business model is the key factor for firm growth, especially in high-tech firms. Whilst the research on technology innovation and business model is burgeoning some issue about what kind of innovation strategy affects business model consequently firm performance remains poorly understand. Drawing upon market orientation theory of market-driven and driving-market, we conceptualized business model ambidexterity as a second-order latent construct that pursuit both market-driven and driving-market business model simultaneously, and examined its mediate role between innovation ambidexterity and firm performance. In this paper, the survey data collected from 201 Chinese high-tech firms demonstrates that there are significant relationships between technology innovation, business model and firm performance. Business model (i.e., Market-driven business model, driving-market business model) is a partial mediator between technology innovation (i.e., explorative innovation, exploitative innovation) and firm performance. Business model ambidexterity mediates the relationship between innovation ambidexterity and firm performance. In addition, we provide insights regarding ambidextrous business model which has a more positively impact on firm performance.

Key words: explorative innovation, exploitative innovation, market-driven business model, driving-market business model, ambidexterity, firm performance

Paternalism and the Evolution of Knowledge

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Abstract

Recent discoveries in behavioural economics revealed consumers have cognitive limitations that limit their ability to maximize their own welfare. This has led to the rise of light paternalism which argues that government intervention can compensate for cognitive limitations and enhance welfare. The introduction of a law/policy is strongly influenced by the knowledge that exists at the time of its introduction, however, knowledge continues to evolve long after laws have been enacted. This paper considers the evolution of knowledge and its relationship with paternalistic intervention. The first section examines light paternalism (nudge) which claims to avoid many of the faults of paternalist laws. Using secondary data, this paper then considers three cases of paternalistic action in New Zealand. The first is the government sponsored Chip Group which intervenes in the consumption of fatty chips (fries). Second is the evolution of knowledge that occurred after a law mandated the use of cycle helmets. The third examines information flows that characterized the smoking debate. Implications for policy makers include the need to recognize the nature of knowledge evolution, including limits of scientific advance, the role of institutional inertia and the possibility of expert bias.

Keywords: consumer welfare, paternalism, nudge.

Recent discoveries in behavioural economics have revealed that consumers have cognitive limitations that reduce their ability to maximise their own welfare. This has led to the rise of light paternalism which argues that government intervention can compensate for these cognitive limitations and enhance welfare. However, the introduction of a law or policy is strongly influenced by the existing information and knowledge, and knowledge continues to evolve long after laws have been enacted. This places an emphasis on the quality of information and measurement methodology that policy-makers draw upon. It means, law and policy makers need to be fully aware of the information limitations.

This paper considers the evolution of knowledge and its relationship with paternalistic laws. The first section examines the new light paternalism (nudge) which claims to be free of many of the criticisms of paternalism. It considers criticisms of light paternalism including the knowledge problem in which decision makers lack knowledge of the preferences of the individuals who are affected by the policies (Rizzo and Whitman, 2009).

This paper expands our understanding of knowledge issues by considering the evolution of knowledge and its relationship to arguments for paternalism. This is done by considering secondary data on (1) government intervention in the consumption of fatty chips (fries) in New Zealand (2) the debates for government intervention in smoking and (3) the evolution of knowledge that occurred after a law was introduced mandating the use of cycle helmets in New Zealand. Implications for policy makers include the need to recognize the nature

of knowledge evolution, including limits of scientific advance, the role of institutional inertia and the possibility of expert bias.

The New Paternalism

Dworkin (1972, 65) defined paternalism as “interference with a person’s liberty of action justified by reasons referring exclusively to the welfare, good, happiness, interests or values of the person”. However, paternalistic policies have been criticised for a number of reasons. Paternalistic laws deny an individual’s freedom and autonomy, and hence, can be regarded as an affront to an agent’s autonomy and freedom of choice (Muramatsu, & Fonseca, 2009). If we recognise that autonomy and freedom have value in themselves, government intervention can reduce welfare. Other criticisms involve the notion of superiority. The notion that the target is less capable of making good decisions can be considered an insult (Coons and Weber, 2013).

New paternalism seeks to overcome many of these criticisms. Research from behavioural economics revealed that people regularly make errors and act in ways that are not in their own best interests. For example, people are strongly biased towards short term outcomes, even when attaching importance to long term outcomes. They often fail to predict what makes them happy in the future, and are strongly influenced by the environment in which they make decisions. The new paternalism was advanced by Thaler and Sunstein (2008) to compensate for the cognitive and informational limitations. Under the title of libertarian paternalism, people are nudged, not forced, into making decisions that are more likely to enhance their welfare. Individuals still retain the element of choice and make decisions based on their own goals and values.

The new paternalism uses a number of tools to nudge people towards welfare enhancing decisions. First are informational interventions which provide information to increase the quality of decision making. Second, is the use of default rules in which people must choose to opt out of a good decision (not the other way round). Third is the use of cool down periods which allow time for a more considered decision, and finally, changes can be made in the decision making environment (or ‘choice architecture’) that are more likely to lead to a better quality decision and counter the distortions that already exist, for example those placed by advertisers in store designs aimed at increasing sales.

Despite its advantages, the new paternalism has been the target of a number of criticisms. First, if the decision making weaknesses are characteristic of humans, the paternalists would also be prone to these errors. They would also be prone to emotional biases in judgement (Blumenthal, 2007). Second, in directing people to the best choices, it denies people the chance to learn and develop their own decision making capabilities. Third, in making it harder for people to make some options, people referring the less favoured options will endure increased difficulties and costs (see Rizzo and Whitman, 2009).

Forth such interventions could have negative impacts on unintended targets. For example, policies highlighting the dangers of over-eating could have a negative impact on young girls who become too weight conscious (Gill and Gill, 2012). Policy programs regularly promote awareness of worst-case scenarios akin to scare-mongering. Finally, Glaeser

(2005) notes that consumers have stronger incentives to get things right than government decision makers who have their own self interest and have to contend with lobby groups and vote trading.

On philosophical grounds, new paternalism has been criticised for emphasising welfare over other values, for example freedom and autonomy. Nudges may not be as intrusive as coercion, but they are still manipulative and reduce the amount of control that people have over decision making. This manipulation has been justified because much of our choice environment has been structured by people with no concern for our well-being such as advertisers (Blumenthal-Barby, 2013) in which case, the paternalist action is merely restoring balance. However, this can lead to another criticism in that it creates multiple layers of manipulation, with corporate manipulation over-laid with government manipulation.

Rizzo and Whitman (2009b) reject the moderate claims of new paternalism arguing that the new decision-making framework opens the possibility of more extreme measures. This occurs because it is easy to extend a policy once it has been introduced. This slippage is made possible by the lack of demarcation lines, the vagueness of many of the terms and analyses, the pressure of lobby groups, and the policy makers own cognitive biases. But most concerning is the new paternalistic framework in itself which makes intervention acceptable. Rizzo and Whitman give an example of how the anti smoking legislation expanded beyond its original justification. Their argument is convincing but has one important weakness. Their ‘thin end of the wedge’ argument means that good interventions may be over-looked on the basis of what it may lead to, not on its own merits.

New paternalists claim that an individual’s choices do not reveal their preferences because those choices are undermined by cognitive distortions, however policy makers have no way of determining what people’s true preferences are (Wright & Ginsburg, 2012). They cannot determine how much of the revealed choice is rational or distorted, nor what level of intervention is necessary to accurately reveal true preferences. There is no way of knowing if intervention is more closely aligned to the individual’s true preferences than a decision without that interference.

This leads to what Rizzo and Whitman (2009) call the knowledge problem of new paternalism. Although the paternalist has better theoretical knowledge about cognitive and behavioral biases, they lack the knowledge of an individual’s preferences, self-control problems and particular circumstances of time and place in which a decision is made. Without this information, paternalists are limited in their ability to provide practical intervention that enhances welfare.

One of the benefits of government decision making is that it can draw on experts. Experts have deeper knowledge on their chosen subject, have access to more information and know how to interpret that information. Not surprising, research shows that teachers, pilots, weather forecasters, lawyers, trial judges, auditors, accountants and livestock judges all make better judgements than lay people in their chosen areas (Shanteau, 1988, 1992 and 1995). However, welfare making decisions are not merely a case of interpretation of facts.

They also involve knowing the preference of the individual concerned, and research shows that experts can be highly inaccurate at predicting the goals and preferences of their patients. For example, Teno et al. (1995) found they over-estimated how many patients would prefer cardiopulmonary resuscitation. A significant part of this failing is that physicians tend to over-emphasise the value of health when considering what makes people better off. Blumenthal (2013) suggests the same phenomena can be seen in academics who might overweigh education, or artists who overweigh creative expression.

To avoid the possibility of inappropriate intervention, Sunstein (2011) emphasises the need for careful analyses of rationale and its consequences, stressing the need for objectivity, rigour and public participation. This suggests that the advance of paternalism is dependent on the level of knowledge and measurement methodology. With this in mind, the next section considers three cases that show the evolution of analysis over time. Using secondary data, the next three sections examine how the evolution of knowledge has impacted on paternalistic action:

Fatty Chips (fries)

The Chip Group is a group partially funded by the NZ government with the goal of reducing the fat (total and saturated) and salt content of deep fried fish and chips (fries). They do this through advocacy, communication, and training. The group seeks to set industry standards including the size of the chips, the size of portions served, fat and oil content. Their most prominent activity is a ‘Best Chip Shop’ competition in which shops undertake on-line training, write in explaining their healthy processes and send a sample of their chips which are analysed for fat content. If the chips are under 9% fat, they receive a highly commended award.

The chips are not tasted. In fact, taste is a notable omission from the judging criteria; a criteria that many, if not most, consumers would consider the most important when judging food. This raises concern about the manipulative nature of health interventions and the danger of distorting consumer preferences with incomplete information. However, the staff appear to have integrity and would not intentionally mislead people. They genuinely want to improve welfare, which illustrates that distortion can occur without intent. It may simply be a consequence of a strong focus on the goal of health.

The author suggested renaming the competition ‘the *healthiest* chip shop’ would be more honest, but recent research now raises doubt that the group has even achieved that aim. In particular, there is new evidence that saturated fats are not as bad for health as previously thought. For forty years, consumers have been advised that they will live longer and have a better quality life if they avoid fatty foods containing high cholesterol. In 1977 and 1983 respectively, the United States and United Kingdom governments produced guidelines which recommended reducing fat consumption to no more than 30% of total energy intake and saturated fats to 10%. However, it is now recognized the guidelines were introduced without sufficient scientific evidence. A large body of research now exists, refuting the guidelines. They include:

They include Petursson et al. (2012) who examined the health and lifestyle habits of more than 52,000 adults ages 20 to 74. They found that women with high cholesterol had lower risk of heart disease, cardiac arrest and strokes than women with low cholesterol. Similarly, Maholtra (2013) presented evidence that reducing saturated fat intake actually increased the risk of heart disease and obesity. He concluded it was time to "bust the myth of the role of saturated fat in heart disease".

Chowdhury et al. (2014) published a meta-analysis in the *Annals of Internal Medicine*, drawing on 27 randomized controlled trials and 49 observational studies involving more than 600,000 participants in 18 countries. They concluded that there was not "clearly supportive evidence for current cardiovascular guidelines that encourage high consumption of polyunsaturated fats and low consumption of saturated fats."

In terms of heart disease, fat has been mistakenly identified as the cause when sugar was the culprit. More worrying, cholesterol and saturated fat are essential for many body functions. They play an important role in building cell membranes, mineral absorption, interaction with proteins and regulating pathways for cell signaling. Ironically, it is now argued that if cholesterol levels are too low, it may actually increase the risk of cardiovascular disease.

Many researchers are now stating that the health guidelines against fats should never have been issued, and lacked sufficient scientific evidence. Harcombe et al. (2015, 6) reviewed the control trials available at the time the guidelines were first issued and concluded "It seems incomprehensible that dietary advice was introduced for 220 million Americans and 56 million UK citizens, given the contrary results from a small number of unhealthy men. ...Dietary advice not merely needs review; it should not have been introduced."

In regards to cholesterol, the United States Government Dietary Guidelines Advisory Committee recently wrote a report that came to a similar conclusion stating "Available evidence shows no appreciable relationship between consumption of dietary cholesterol and serum (blood) cholesterol. Cholesterol is not a nutrient of concern for overconsumption" (USDA 2015, 91). The government guidelines are set to change.

A key lesson from the fat debate is the inertia and longevity to such myths when they receive institutional support. For years, the evidence was building but as late as 2010, the US Department of Agriculture repeated the call to keep saturated fat content below 10%. By contrast, the most recent research suggests that healthy fats (saturated and unsaturated fats from whole food, animal, and plant sources) should sit in a range from 50 to 85 percent. The government guidelines may have actually reduced health and welfare.

Cycle Helmets in New Zealand

In 1986, Aaron Oaten was hit by a car while riding his bicycle to school, and suffered serious brain damage. A doctor advised his mother, Rebecca Oaten, that Aaron would "almost certainly not have suffered brain damage" if he had been wearing a cycle helmet (Mullins, 2000). His mother launched a campaign pressuring the government to introduce a law making it compulsory for all cyclists to wear helmets.

Rebecca Oaten's personal experience garnered a lot of sensitivity, and parliament on the day the bill was passed has been described as emotional (Dalziel, 1994), a reminder of Blumenthal's (2007) suggestion that law makers are also prone to emotional decision making. However, the legislation was not without empirical support. International evidence at the time supported the benefits of cycle helmets. For example, a 1987 study conducted in Seattle suggested that wearing cycle helmets could reduce head injury by 75% and brain injury by 85% (Thompson et al., 1989). Similarly, an Australian study released the year the law was introduced found that helmets reduced the risk of upper head injuries by 63% and loss of consciousness by 86% (Thomas et al., 1994).

The period following the law's enactment saw a reduction in cyclist head injuries. Povey et al. (1999) reported a 20% reduction in head injuries for cyclists involved in crashes with motor vehicles, and a reduction of between 24 and 32% for cyclists in non-motor vehicle crashes. They attributed this decline to the wearing of helmets. Similarly, Scuffham et al. (2000) found that cyclists of all age groups experienced significantly reduced head injuries due to the wearing of helmets.

However, more recent research throw these conclusions in to doubt. For example, Robinson (2001) noted that the reduced injury rate was part of a longer trend, and if the law was effective, a much larger improvement should have occurred in the year that helmets became compulsory. Similarly, Scuffham and Langley (1997:8) found that the increase in helmet wearing "had little association with serious head injuries to cyclists as a percentage of all serious injuries to cyclists."

One of the notable trends is a decrease in the number of cyclists since the laws introduction. Clarke (2012) found cycling had declined by 51%. This decline in cycling numbers contributes a significant explanation for the decline in injuries. Clarke contributed this decline in the number of people cycling to the law, arguing the need to wear helmets put many people off cycling. With the resultant loss of exercise and health, Clarke argues that the law actually contributed to 53 premature deaths per year. To put that figure in perspective 17 cyclists died in 1993 compared to only 9 in 2011. If Clarke's figures are correct, the law has contributed to significantly more deaths than it saved, but Clarke may suffer from the same error pro-helmet studies make; that is a failure to consider other factors that contribute to the decline of cycling numbers over time, for example the increased tendency for parents to drive their children to school.

A subsequent paper analysed the research methods used in each of these papers (Wang et al., 2013), and helped to expose an important point that legislators need to consider; the refinement of research over time and the variability of research technique. For example, they found that the results would vary depending on what years researchers used for their comparison, and whether time trends were considered. Of course one of those time trends is the increased use of helmets that began before the law's introduction, making it hard to distinguish between the effect of helmets and other time trends. The authors send a strong warning for legislators to note:

To non-specialists, they may not be aware of the statistical issues involved in reaching certain conclusions. In fact, many statistically flawed studies have been cited extensively in public debate over bicycle helmet laws These studies may have influenced how the media, public and policymakers perceive bicycle helmets and mandatory helmet laws (Wang et al., 2013:12).

Other problems include the use of international comparisons when differences in the local environment have not been distinguished, and a failure to consider other consequences, for example that many cyclists were put off, with a resulting reduction in exercise and health. A final lesson of this study was the fact that the law's enactment did not result in any abrupt changes in the percent of head injuries. Despite that finding, and attempts by lobby groups to repeal the law, the law remains intact, an illustration that a law with, at best, inconclusive results is hard to be repealed.

Cigarette Smoking

The purpose of this section is not to review all the literature on the costs of smoking, but to introduce the reader to some of the reasons that has produced a wide variation of results in those studies. One of the justifications for government intervention is that a third party is injured. This justification has been applied to smoking with a number of studies conducted to assess the true cost to society. In 1996, cost of smoking in the United States was valued at \$97 billion. This figure included \$50 billion in direct health care costs, \$7 billion in indirect morbidity costs including lost economic output when smokers can no longer work, and \$40 billion from lost earnings once the smoker has died (see Pope, 1999).

Smokers die early and are more likely to be absent from work with health problems. They cost more in health care when they are alive, perhaps up to 40% more (Barendregt, Bonneux, & van der Maas, 1997), but early studies over-looked two very important points. First, the fact that smokers die earlier means they cost the country less in terms of pensions. Secondly, because they die early, they incur less health costs in old age when health costs soar. In New Zealand, it has been shown that people over the age of 65 spend five times as much on health care than a person under 65 (Bryant et al., 2004). The year before the FDA study, it was reported that 65 year old Americans could expect to spend on average, about \$200,000 worth of health care before they die (in 1995 dollar) (Fuchs, 2011:164). A smoker who dies early saves the country a lot of money. Consequently, a number of studies have been conducted showing that smokers actually save society money (Viscusi, 1999; Barendregt, Bonneux, & van der Maas, 1997). More recently, Sloan et al. (2004) added the costs that passive smoking has on non-smokers and the costs of fires started by cigarettes, and came to the conclusion that smoking does have a cost on the United States.

These analyses show an evolution of knowledge and methodology with significant consequences for the justification for paternalistic intervention. Sloan et al. (2004) state that the current approach to analysing smoking's costs has reached a consensus that includes medical expenses, productivity losses, effects of smoking on the health of others, and non-medical expenditures. However, within it lay a number of areas where knowledge could advance and change the analysis.

One of the problems with such an analysis is trying to identify the cost of a loss to life (Sloan used an average of \$100,000 per year). The value of life has been a contentious area for economists. For example, one of the biggest problems regard whether to value older people the same as younger people. Common sense would indicate that a younger person has more life ahead of them than an older person. However when the Environmental Protection Agency tried to account for age differences in one assessment they received large protests from senior citizens and had to abandon the discounting (Skrzycki, 2003); an illustration of how the political process can influence objective cost-benefit analysis.

In smoking analyses, economists settled on an estimate of future earnings that the smoker would have learned if s/he survived as an estimate of life's value, but this raises new controversies. For example, it suggests that white men have a more valuable life because they typically earn more. By contrast, the unemployed, retired, and stay at home mothers have no value. This raises the question 'should we give all people the same value as a working white man, or should we average it out?' The first option would give a higher figure and suggests smoking places a high cost on society. The second option provides a lower figure and a lower cost to society.

What this discussion reveals is the limitations of even the best economic evaluations. Variations can include the methods used to value health loss, time periods used for analysis, data sources, impacts considered and other underlying assumptions (Sloan et al., 2004). Barendregt et al. (1997: 1057) studied the effects of smoking in the Netherlands and concluded "Even a well-designed study of this type is marred by inevitable arbitrariness concerning what costs to include, which discount rate to apply, and what duration of follow up to use".

There are huge differences of opinion as what to include. These differences can be the result of differences in judgement and the values of the analysts, but it can also be driven by motive as lobbyists and experts become aware of these variations and exploit them for their own purposes. For example, in New Zealand an anti-smoking group commissioned an economist to determine the costs of smoking to New Zealand society, and although the reduced financial expenditure resulting from an early death on health expenditure and pensions were known, they were excluded from the report (Easton, 1997).

With advances in knowledge, future studies may become more fine-tuned and accurate, but this suggests future findings may deliver different results to the cost-benefit analyses, in which case people's freedoms may have been reduced erroneously. Of course, future findings could also show that governments could have been more severe

Discussion

New paternalism is of value in that it expands the range of options to improve the welfare of consumers. However, this paper revealed a number of problems with paternalist intervention. The cycle helmet example showed that policy makers are prone to lobbying and emotional arguments. The decision was made more palatable by the limited research available at the time, but the limits of that research was not recognised.

In this paper, it was observed how consumers were told what food was best, but were not told taste was not a criteria. This raises concerns about government manipulation. It is possible that staff at the Chip Group view taste as irrelevant compared to health, which raises the possibility that paternalists and experts suffer from a number of biases that the lay person does not suffer. The first of these we will call ‘specialisation-bias’ in which specialists over value their area of expertise. This can be linked to a number of well documented phenomena, including selection bias in which the people who choose to be an expert in a particular area do so because they value it more highly than other-people. It can also be linked to the psychological phenomenon of projection in which people use their own personal characteristics as a guide to human nature, and thereby believe their preferences are indicative of other people.

It is also possible that experts may be prone to representative bias in that the information they are exposed to on a daily basis raises the valence of that information. For example, health professionals are exposed to the negative consequences of a decision as they have to repair them, but are less exposed to those who enjoy an activity without being harmed.

The second could be called missionary bias and refers to a situation in which the paternalist is motivated by a desire to convert others to a life which they believe is superior to the one the targets are currently living. The paternalistic can become so enthusiastic about the moral and intellectual righteousness of their proposal that it directs their judgement. In some instances, they may believe their mission is so important that the ends are more important than the methodology used.

This paper suggests that expert’s treatment of facts may be horribly flawed. Problems exist even when full analyses are performed. This suggests that government decision making is also sub-optimal. Like consumers, governments can only make decisions based on the information available to them at the time, however those decisions must acknowledge the limitations of that knowledge and suggest they should err on the side of caution when taking away people’s liberties.

Sunstein(2011) acknowledges the limitations of analysis and supports Greenstone’s (2009) suggestion of retrospective analysis and a culture of experimentation and evaluation. Greenstone suggested creating a regulatory review board with the power to repeal legislation. However, the cycle helmet example above showed just how hard it is to overall law even when its benefit is hard to determine. Institutional inertia and the difficulty of organisational change can act as barriers to repealing law, especially if a government office relies on that legislation for its job, and that same office is the storehouse of knowledge on the subject.

If we accept that policy-makers are prone to the same decision making biases as consumers, we could create a decision making guide for policy makers based on Sunstein and Thaler’s framework. This could include:

1. Default rules for policy makers that recognise that the liberty of the individual has value. Failure to optimise by itself is not an excuse for intervention.

2. Cooling off periods. Given the problems of institutional inertia, it is insufficient to introduce a law, then consider repealing it. A cooling down period is needed to allow the evolution of knowledge and reduce the possibility of orthodoxies distorting information flows.
3. Information. Information should be included on the limitations of the analyses, and the possibilities arising from evolution of research methodology.
4. Choice architecture. The framing of decisions and information for the policy makers can have a significant impact on their decisions. The choice architecture for policy makers should respect and value autonomy. This could include providing descriptions to of how the systematic reduction of freedoms of minorities can lead to a progressive reduction of freedoms for all.

Conclusion

New paternalism has provided an additional option to the policy maker's toolbox but has strong criticism. It has been argued that good analysis can reduce inappropriate intervention, but this paper has revealed serious limitations because of evolution in knowledge and technique.

Governments can only make decisions with the information they have and the time constraints they face. But knowledge continues to evolve after a law is enacted. This paper expands our understanding of knowledge issues by considering the evolution of knowledge and its relationship to paternalism. Three cases were considered including the government sponsored Chip Group, the evolution of knowledge after a law was introduced mandating the use of cycle helmets, and the knowledge and information flows that characterized the debates for government intervention in smoking

Implications for policy makers were discussed, including the need to recognize the nature of knowledge evolution. This includes the need to acknowledge the limitations of scientific advance, the role of institutional inertia and the possibility of expert bias including specialization bias and missionary bias. It then recommended that the nudge policies of default rules, cooling off periods, information and choice architecture be applied to policy makers.

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The Empirical Evidence of Human & Environmental Impact of Entrepreneurship Development in Zhejiang China

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Abstract

China economic miracle has been driven mainly by entrepreneurship development at grass root level of villages and towns. By end of 2013, these small and medium size entrepreneurial firms (SMEs) have contributed to 50% of China government tax revenue, 60% of GNP, and 68.3% of China's export, 80% of urban jobs, 65% patents, 75+% of technology innovations, and 80+% of R&D for new products. For years, China's entrepreneurship development at the bottom of pyramid has been the driving force for the country economic development and lift millions out of poverty. China's model has been focused on delivering economic gains. To this end, many literatures and entrepreneurship studies about China have been focused on economic and managerial aspects and few on human and environmental impacts with empirical focus. Different from other research in the area, this study asks a question of whether or not entrepreneurship development will naturally promote human and environmental development in the region. To answer this question, we selected the most entrepreneurial developed region, Zhejiang province, and comparing it with China national average during the past three decades. China is currently transforming from the labor intensive & high carbon-energy oriented manufacturing and export led economy to the innovative manufacturing, service & consumption oriented economy, and to shift from GDP centered growth model to human and environmental sustainable growth model. To this end, the findings from this research will have some policy implication as where China were and where it shall be heading, when China is further developing towards west region of China and expands to the neighboring regions around the silk route and belt outside China. In the study we measured seven set of factors which associated with impacts of human development and its physical environment. Namely, 1. Material factors (housing, standard of living); 2. Physical (environmental) factors (food, water, air & health that related to survival); 3. Economic factors (poverty, per capita of income, unemployment rate, income inequality); 4. Social factors (social life-ability to participate in community life); 6. Institutional factors (access to services and institutions such as education and health services); 7. Psychological factors (such as poverty reduction that affects people's feelings). By comparing this region's human development and environment data during the past 30+ years with China national average respectively and statistically, we found some areas are positive and some are negatives. Although entrepreneurship development at the bottom of pyramid did empower millions and lift them out of poverty but results are not all positive. In certain areas, it demanded timely policy intervention to minimize negative impacts. The results have important policy implementations for China in specific and other developing countries (which are on the same path) in general.

Keywords: China, entrepreneurship, human development, environment sustainability

Exploring the Massive Entrepreneurship Path and Future Prospects from Makers' Co-operation Perspective: Based on the Grounded Theory

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Abstract

With the implementation of the national innovation-driven development strategy, massive entrepreneurship and crowdinnovating will serve as the new engines to reinforce China's economic growth. Under modern commercial background, theorists and practitioners are facing a new topic on makers' entrepreneurship path. To achieve this goal, the author conducted in-depth interviews with several leading makers of China and analyzed the interview contents with the grounded theory method. Combined with the long tail theory viewpoint, the study depicts a fundamental model of massive entrepreneurship path from makers' co-operation perspective. The results show that "interest-oriented and individual creativity-project formation and evolution- entrepreneurial returns" is a typical path for the achievement of massive entrepreneurship, among which, crowdfunding and crowdinnovating space's operating strategies are important financial and institutional guarantees. Further, the author interviewed the founders of several famous crowdinnovating spaces in China. Towards the multiple cases, this paper validates the universality and saturation of the above fundamental path model by another grounded analysis. The research expects to provide a theoretical reference for manufacturing industry's upgrade in emerging economies including China.

Keywords: crowdinnovating space, massive entrepreneurship, makers'co-operation, entrepreneurial path

Does Fama and French five factor model work well in Japan?

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Abstract

In this study we investigate whether the five-factor model by Fama and French (2015) can explain well the pricing structure of stocks with long-run data for Japan. We conduct standard cross-section asset pricing tests and examine the additional explanatory powers of these new Fama and French factors, RMW (operating profits) and CMA (investment amount). We find that both the operating profits and the investment amount are very weakly associated with the cross-sectional variations of stock returns. We also find that the RMA and the CMA factors are not statistically significant when we conduct GMM tests with Hansen-Jagannathan distance measure. Thus, we conclude that the original version of the Fama and French five factor model cannot be a good benchmark pricing model for Japanese data during our sampling period of 1977 to 2014.

Keywords: Fama and French factor models, operating profitability, asset growth effects

Introduction

To date it has been commonly understood that the Fama and French three-factor model is suited to explain the risk and return structure of stock data both for the U.S. (Fama and French, 1993) and for Japan (Jagannathan et al., 1998, and Kubota and Takehara, 2010). However, Fama and French (2015) claim that their five factor model is superior to their original three factor model (Fama and French, 2013) with the new and longer data from July 1963 to December 2013 for US firms.

In this paper we explore the plausibility of the five factor model as proposed by Fama and French (2013) to determine whether this new model is able to explain the long run data of the Tokyo Stock Exchange firms from January 1977 to December 2014. We try to duplicate the original definitions of new two factors by Fama and French (2015) as much as possible in the context of financial statements disclosed by Japanese firms following Japanese GAAP and explore the explanatory power of their five factor model as applied to Japanese data. After we take bird's-eye views of average return differences, where stocks are ranked by conventional three factors and the new two factors, we employ standard methodologies to choose the best asset pricing model (Kubota and Takehara, 2015, Cochrane, 2005, Hansen and Jagannathan, 1997, Gibbons et al., 1989).

Section 2 defines the five factor model as proposed by Fama and French (2015) and Section 3 explains the data construction method and Section 4 reports the empirical results and Section 5 concludes.

Formulation of the Fama and French Type Five-Factor Model

Fama and French three-factor model is composed of: value-weight excess market returns (abbreviated as EVW), size related portfolio return spreads (referred to as the SMB factor), and book-to-market ratio-related portfolio return spreads (also known as the HML factor). The basic Fama and French three-factor model can be written as follows.

$$r_{jt} - r_{ft} = \beta_i^M (r_{Mt} - r_{ft}) + \beta_i^{SMB} SMB_t + \beta_i^{HML} HML_t + \varepsilon_{jt}. \quad (1)$$

In (1) r_{jt} is the return of security j in month t , r_{Mt} is the return of the market portfolio, r_{ft} is the risk-free rate, and SMB and HML are the Fama and French Small-Minus-Big and High-Minus-Low factors, and ε_{jt} is error term, respectively. Next, they define the variable ‘OP’ as annual revenues minus cost of goods sold, interest expense, and selling, general, and administrative expenses during the previous fiscal year, divided by the end of the book value of equity and ‘INV’ as the change in the book value of total assets from the beginning to the end of the previous period divided by the end of the previous book value of total assets. Then, they construct size and OP ranked 6 benchmark portfolios at the end of June of each year and compute RMW (Robust-Minus-Weak profitability) factor in a similar manner with the construction of HML factor. They also construct size and INV ranked 6 benchmark portfolios and CML (Conservative-Minus-Aggressive investment) factor. Adding these two factors, RMW and CMA, to the three factor model, they obtained Fama and French’s five factor model as in equation (2).

$$r_{jt} - r_{ft} = \beta_i^M (r_{Mt} - r_{ft}) + \beta_i^{SMB} SMB_t + \beta_i^{HML} HML_t + \beta_i^{RMW} RMW_t + \beta_i^{CMA} CMA_t + \varepsilon_{jt}. \quad (2)$$

Although there are other alternative multifactor models as proposed by Kubota and Takehara (1997, 2010) and Hiraki et al. (2014), for example, but the exploration of these types of models is outside the scope of this research. Using macroeconomic variables alternative multifactor model using the CAPM with human capital was proposed by Jagannathan and Wang (1996). They demonstrate that CAPM cannot explain well the risk and return structure of US stocks, and that their CAPM with human capital model performs as good as Fama and French three-factor model (Fama and French, 1993). For Japanese data Jagannathan et al. (2018) also find that the CAPM cannot explain well the cross-sectional variations of stock returns and the CAPM with human capital is as good as the Fama and French three-factor model. Again, the investigation of this type of model is outside the scope of this research.

Data Construction Method

The source for financial statement data is Nikkei NEEDS Database provided by Nikkei Media Marketing Inc. Stock returns and market value of equity are retrieved from NPM Database provided by Financial Data Solutions Inc. The observation period is from January

1978 through December 2014 and we use monthly return series for measuring stock returns as well as factor portfolio returns and annual frequency data for financial statement data.

As for the variable ‘OP’ in this study we use current earnings for Japanese data as a numerator divided by the end of the book value of equity, and ‘INV’ as the change in the book value of total assets from the beginning to the end of the previous period divided by the end of the previous book value of total assets. The former is because current earnings number is widely used by financial analysts in Japan and the only difference from Fama and French (2015) is net interest received, which should eventually accrue to stockholders.

In order to construct Fama and French’s six benchmark portfolios and two other factors for the sample period, we used all firms listed in the first and second sections of the Tokyo Stock Exchange. The fiscal year-end of more than 90 per cent of the firms listed on the TSE is the end of March. Accordingly, the sample firms listed in the TSE were sorted at the end of August each year, which is five months after the fiscal year end. This was done to ensure public availability of both the numbers of shares issued and the book value of equity data for investors. For those firms that did not have a March 31 fiscal year-end, earlier data from their financial statements was used. In August of each year t from 1977 through 2014, all firms listed on the TSE were ranked by their market value of equity (MV). Firms were also ranked by their book-to-market ratios (BM) and the 30th and 70th percentiles of TSE first section firms were computed as data breakpoints. Using the median MV and the 30th and 70th percentiles of BM, the firms were divided into six MV and BM ranked groups, thus allowing the formation of six value-weighted portfolios. The Fama and French factors, EVW (excess market returns), SMB (Small-Minus-Big) and HML (High-Minus-Low), were then computed by applying a method similar to that of Fama and French (1993).

The RMW factor portfolio and CMA factor portfolio are constructed exactly HML factor portfolios is constructed using the 30th and 70th percentiles of TSE first section firms as computed as data breakpoints.

For the risk-free interest rate, the monthly average of overnight call-money rate without collateral as reported by Bank of Japan was used.

Factor Returns for Japanese Data and Asset Pricing Tests

Table 1 reports the basic statistics of the factors we use for the final factor model test with four and five factor models. In Panel A we report the basic statistics and in Panel B we report the correlation numbers among these candidate five factors. The observation period of our monthly data is January 1978 through December 2014. The numbers reported are in percentages and for example, for the market index, EVW, the monthly average return is 0.314%, which is equivalent to 3.768% per annum. All the factor returns have positive average except the operating profit factor, RMW with -0.088%. As for the standard deviation EVW shows the highest variability. We also report the 25 percentile, the median, and 75 percentile figures in the right hand four columns. In case of the median we find RMW factor is positive contrary to the case of the mean. Otherwise difference between the means and medians are not large.

Table 1: Descriptive Statistics of Fama and French Five Factors

EVW: Excess returns from the value-weighted market index, SMB: Small-Minus-Big factor, HML: High-Minus-Low factor, RMW: Robust-Minus-Weak factor, CMA: Conservative-Minus-Aggressive factor. ‘Mean’ is an arithmetic average of monthly return from factors (in %), and ‘*p*-value’ is a probability value from Student’s *t*-test in which the null hypothesis is the arithmetic average of risk factor equal to zero. ‘S.D.’ is a standard deviation of risk factors. ‘25%ile’, ‘Median’ and ‘75%ile’ denote 25 percentile, median and 75 percentile of risk factors, respectively.

Panel A. Summary Statistics

	Mean	(<i>p</i> -value)	S.D.	25%ile	Median	75%ile
EVW	0.314	0.197	5.152	-2.476	0.390	3.535
SMB	0.083	0.603	3.382	-1.802	0.153	2.186
HML	0.583	0.000	2.978	-0.911	0.418	2.044
RMW	-0.088	0.364	2.051	-1.287	0.007	1.011
CMA	0.128	0.263	2.413	-1.087	0.160	1.345

Panel B. Correlation Matrix among Five Factors

	EVW	SMB	HML	RMW	CMA
EVW	1.000	-0.097	-0.176	0.051	-0.248
SMB	-0.053	1.000	0.145	-0.200	0.031
HML	-0.192	0.109	1.000	-0.241	0.392
RMW	0.020	-0.120	-0.240	1.000	-0.073
CMA	-0.240	-0.002	0.384	-0.075	1.000

Pearson correlations among five factors are shown in the lower-left triangular part of the matrix and Spearman rank correlations are shown in the upper-right triangular part.

Table 2 reports the correlation between the five factors and the first seven principal components estimated from the returns of individual securities which have been listed during the observation period from 1978 to 2014. We find that the first principal components has high correlations with EVW at -0.803 and then with SMB at -0.423. The second principal component is correlated with CMA and RMW at 0.436 and 0.322, respectively. The third principal component is correlate with SMB and EVW at 0.581 and -0.414, respectively. The fourth principal component is correlated with SMB at 0.347. It is a little surprising that HML factor is not highly correlated with principal components except for the second principal component at 0.304.

Table 2: Correlation between Statistical Factors and Five Factors

EVW: Excess returns from the value-weighted market index, SMB: Small-Minus-Big factor, HML: High-Minus-Low factor, RMW: Robust-Minus-Weak factor, CMA: Conservative-Minus-Aggressive factor. PRC1 through PRC7 are first seven principal

components which are computed by using returns of individual securities from January 1978 through December 2014.

	EVW	SMB	HML	RMW	CMA
PRC1	-0.803	-0.423	-0.127	0.107	0.107
PRC2	-0.174	0.160	0.304	0.322	0.436
PRC3	-0.416	0.581	0.143	-0.223	-0.105
PRC4	-0.073	0.347	-0.052	-0.029	0.123
PRC5	-0.011	-0.068	-0.059	0.074	0.160
PRC6	-0.181	0.269	0.024	-0.238	0.104
PRC7	0.070	-0.116	0.019	-0.098	0.012

Table 3 reports the results from Fama-MacBeth (1973) regressions. The test reveals which factors are priced among candidate five factors and reports the overall fitness of the model. The market factor (EVW) is significant for multifactor models except in three factor model, but the coefficients are negative. However, the evidence is consistent with previous evidence on Tokyo Stock Exchange firms (Jagannathan et al., 1998). HML factor is significant with positive coefficients for Fama and French three factor models and five factor models. However, as for SML factor the coefficients are all positive, but significant only for the four factor model, for which HML factor is replaced by RMW and CMA factor. We report the results from this four factor model because Fama and French (2015) find this four factor model can performs as good as their five factor model and we try to confirm whether it is true for Japanese data as well. The significance of SMB factor only for this model can be interpreted that overall HML factor is by all means strong in explaining the cross section stock returns for Japan. After dropping the HML factor, SMB factor emerges again as a strong explanatory variable because other two factors, RMW and CMA, do not seem to be strong explanatory variables judging from the decrease in adjusted R^2 values. They are significant, but note the sign of the slope for CMA changes to wrong negative sign for five factor models.

Table 3: Results of Fama and MacBeth Regressions

EVW, SMB, HML, RMW and CMA denote estimated risk premium for betas. Jensen's alpha is defined as an intercept term.

	Intercept	EVW	SMB	HML	RMW	CMA	Adj. R^2
Coef.	3.127	-2.592					0.147
p -value	0.000	0.000					
Coef.	0.208	0.233	0.131	0.894			0.701
p -value	0.733	0.731	0.473	0.000			
Coef.	1.583	-0.733	0.873		1.360	1.541	0.612
p -value	0.004	0.273	0.000		0.000	0.000	
Coef.	1.982	-1.917	0.294	1.698	1.489	-0.930	0.805
p -value	0.000	0.006	0.171	0.000	0.000	0.013	

Table 4 reports the results from GMM test where we judge the model fitness with Hansen and Jagannathan distance measure (Hansen and Jagannathan, 1997). As for the distance measures the Fama and French five factor shows the shortest distance at 0.339. The Fama and French three factor model and four factor model in which HML is dropped from the five factor model perform almost the same. Note Fama and French (2015) report the similar between five factor model and this four factor model,

In case of three factor model the coefficients for EVW and HML are positive with the right negative signs (Jagannathan and Wang, 1996). For four factor model CMA is significant and for five factor model HML is significant, thus deleting the significance of RMW and CMA factors. Euler conditions are all rejected for positive pricing errors.

Table 5 reports the result from Gibbons-Ross-Shaken test (Gibbons, et al. 1989). We find all candidate models are rejected in this mean-variance efficiency test as was the case in Fama and French (2015) for US data. However, the test statistic is at the minimum for three factor model at 2.797 and five factor model next best at 2.825, which means the simpler three factor model seems to work best among four candidate models. The test statistic of four factor model is rather high at 3.550 and it is almost same level as that of CAPM at 3.655. Although the four factor model works well in US as good as five factor models (Fama and French, 2015), their performance for Japanese data is inferior to three factor model.

Table 4: Results of GMM Tests

In the table, $\delta_1, \delta_2, \delta_3, \delta_4, \delta_5$ are the parameter values in equation (20) of the main text. “HJ-Dist” denotes the Hansen-Jagannathan distance measure. The rows denoted as p -value are the significance of the coefficients, except in the column “HJ-Dist,” in which the significance of the Hansen and Jagannathan distance measure for the GMM test is shown. In the test $T = 444$, $N = 25$, and $K = 1, 2, \dots, 5$ and the p -values are computed by numerically generating $\chi^2(1)$ values for 10,000 times.

	δ_1 (EVW)	δ_2 (SMB)	δ_3 (HML)	δ_4 (RMW)	δ_5 (CMA)	HJ-Dist
Coef.	-1.598					0.403
(p -value)	0.091					0.000
Coef.	-2.208	0.461	-7.942			0.339
(p -value)	0.017	0.747	0.000			0.000
Coef.	-2.933	-0.483		2.718	-11.909	0.366
(p -value)	0.004	0.777		0.653	0.003	0.000
Coef.	-2.273	-0.216	-8.495	-5.799	-0.742	0.337
(p -value)	0.026	0.893	0.001	0.343	0.889	0.000

Table 5: Results of Gibbons-Ross-Shanken Tests

	CAPM	Fama-French 3 factor model	EVW + SMB + RMW + CMA	FF3 + RMW + CMA
GRS F-Value	3.655	2.797	3.550	2.825
p-value	0.000	0.000	0.000	0.000

Conclusions

We investigated whether the five-factor model by Fama and French (2015) can explain well the pricing structure of long-run stock data for Japan. We find that the return dispersions generated by the new two factors, operating profits and the level of investment of firms are not large, contrary to the evidence for the US by Fama and French (2015). With the asset pricing test we find that both the operating profits and the investment amount are weakly associated with the cross-sectional variations of stock returns, different from the US evidence. Finally, we show that the coefficients of these two factors are not statistically significant when we conduct GMM tests with Hansen and Jagannathan distance measure.

We conclude that Fama and French five-factor model or their four factor model, which fits well to US data, cannot be a good benchmark pricing model for Japanese data during our sampling period of 1977 to 201. Further out-of-sample tests as in Lewellen (2014) is subject to our future research.

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The Influence of Grooming Behavior of Female Salesperson on Perceptual Competency Characteristics

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Abstract

Female salesperson usually has more advantages than male salesperson for creating better image due to have various accessories to fit with the dressing. This study focused on how female salespersons show competency characteristics through proper grooming behavior? The results indicated: (1) if female salespersons want to highlight particular accessory, it is better wear light color shirt, (2) female salespersons with colorful jacket and exaggerated watch influence the perception of competence characteristic.

Keywords: female salesperson, grooming behavior, competency characteristics

Agency Risk and Firm Valuation: An Empirical Analysis of Venture Capitalists' Private Expectations

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Abstract

This study empirically evaluates the price impact of agency risk in firm valuation. Using a unique data set comprised of internal valuation documents, I find that venture capitalists use firm value discounts to cope with expected agency costs. These effects are economically large: e.g., whenever investors deem the management team inexperienced or cast doubt on management's efforts, a firm's equity value drops at least by 10-26%. This effect is robust to i) controlling for private business risk expectations, ii) controlling for financial statement data, firm and market characteristics, and iii) examining the effect of financial contracting mechanisms to reduce agency risks.

Keywords: agency risk, firm valuation, venture capital

Segmentating the Market for Better Occupancies: A Tool for Gaining Competitive Advantage in Kenya's Town Hotels

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Abstract

This paper explores the application of the various ingredient-elements of market segmentation (MS), in room stock management by the different town hotels and the MS's capacity to gain not only competitive advantage, but higher occupancies. A cross sectional survey of Kenya's population of 53 registered town hotels was carried out, registering 98% response rate. The hotels were clustered into their sub-groups according to their different star ratings, allowing for the classification of the Kenyan town hotels into their various homogeneous MS characteristics. Statistical analysis of the various star rating clusters, established the different strata's MS application characteristics and the resulting occupancy performances. The findings indicated that hotel clusters with the higher star ratings applied MS to a higher degree with markedly higher performances in occupancy than the lower star rated hotel clusters. At the one star hotel level there was very low application of MS and the impact of the non application of MS was demonstrated by their low occupancy performances, despite having the least beds to sell per hotel. In addition the study identified the MS ingredient predictor elements that were associated with the higher occupancy performances. These variables were then assembled into 'the best occupancy predictor variables'. The paper suggests that the application of MS enhances occupancy in town hotels, in addition to identifying and describing Kenya's town hotels MS applications and determining the most effective MS ingredient elements into an MS application model.

Keywords: market segmentation, competitive advantage, forecasting, allocating inventory, discriminating, willingness to pay, offering discounts, town hotels

Introduction

There are many market stratas in Kenyan hotels, today. There are the leisure tour groups, the business convention groups, the individual leisure guest, the domestic tourist, the businessman and the corporate client. The sizes of these different markets are continuously changing. These different market-segments have their peculiar characteristics with varying needs that hotel managers should exploit to gain competitive advantage. Consequently, the hotels that predict their future demand loads by the identified market segments could deny bookings to the segment that is unwilling to pay the full rates during the high seasons and discount the rates for this group, during the low seasons. The action will allow the hotel to maintain both a high average occupancy and higher room rates. The segmenting-forecasting activity also allows management to move excess demand into the shoulders

and the lows, leaving the prime time, for those willing to pay the full rates, only. Subsequently, each Kenyan hotel facility should have identified not only their sub-markets but the different characteristics and needs of these market segments (El Gayar et al., 2011). Rack-rates may be too high for one market segment, while to another segment the same rates may be considered fair. Others may even be willing to pay more than the indicated rates for the same product, if available, during the high seasons (Sarheim 2008 Understanding each market segment fully, the Kenyan hotel-manager could not only allocate rooms to the right guest, but discount and charge the right room rates to the right guest at the right time (Kimes, 1989).

The study, therefore, sought to establish the market-segmentation-activity-characteristics of Kenyan town hotels and seek to relate the data to the different occupancy performances of the different hotels. This led to the identification of associations between the levels of application of market segmentation and the different occupancies of these hotels. It should be noted that segmentation does not stop there, but leads to forecasting future demand loads and finally allocating bookings according to ‘willing to pay the full rate and discounting where excess demand exists’. This way, the facility commands competitive advantage.

Literature Review

Different hotel market segments behave differently under different circumstances. Rack rates may be too high for one market segment, while other segments may consider them fair, indeed others may be willing to pay more than the indicated rates for the same product, (Middleton, 1994). The manager is, therefore, called upon to fully understand the different market segments and take advantage of this phenomenon. Sarheim, (2008) argues that segmenting the market is the most effective way to approach the different types of demands; adjusting rates and policies to the different room needs, room rate tolerances and different lead times to bookings. The goal of the hotel, therefore, is to segment its market into several fairly homogeneous sets of consumers that can then be served accordingly and profitably, by developing a targeted service strategy for each level of these customer stratas (Yelkur and Herbig, 1997)

Demand, therefore, needs to be segregated into its various levels from the time-sensitive business segment, through to the price sensitive leisure segment. Other characteristics of the leisure sector includes the early search for ‘good deals’, while the business demand does not only book late but is generally insensitive to price (Hanks 1992 and Chiang, Chen and Xu, 2007). Based on these characteristics, management can apply strategies and tactics that use time and price-levers to attract the high paying, time-sensitive demand into the high seasons and can also use discounts to attract the price-sensitive demand, away from the high seasons into the shoulders or the low seasons, (Enz, 2001). To segment the market successfully, Bentley, (2007) recognizes the need to fully identify the different segments’ special needs and peculiarities. Build a picture of how and when they would make their reservations. Hanks (1992), suggested that with this information, hotels could give ‘segment targeted’ discounts and build fences against other segments, willing to pay the higher price, from taking advantage by offering benefits and corresponding restrictions, accordingly.

Methodology

The research design was a descriptive, cross sectional analytical survey. The design allowed for close insights into the extent of MS application in Kenya's town hotels, in addition to identifying the hotels' various performances on the different MS applications.

This study targeted the star rated-registered town hotels' cluster across Kenya. The cluster ranged from the one star hotel to the five star hotels. The Kenyan hotel population consists of three types of hotel clusters as detailed in the Kenya Gazette No. 3976. The study limited itself and focused on the town hotel cluster whose population was indicated as 53. Consequently a census was conducted and the 53 town hotels were treated as the study's sampling frame. The study was able to access 46 of the study population.

Data Collection

The respondents were selected from reservation managers, front office managers or as directed by the General Managers. The final respondents list included one general manager, eight hotel managers, thirteen marketing managers, eight reservation managers, and twenty front office managers. The study employed structured questionnaire for reservations, and front office staff while interview schedules were used for the Hotel Managers.

The analysis, firstly, attempted to identify the different levels of MS that the hotels were operating. In addition, the study attempted to establish the various performance levels of the sample hotels, using one of the accepted performance indicator ratios as identified by Barth's (2002) model, the capacity utilization ratio. These results allowed not only for the descriptive analysis to be depicted on graphs and diagrams, indicating the various MS levels of Kenyan town hotels, but also their corresponding levels of performances. The hotels' performances were cross tabulated with the various ingredients, to establish their relationships through Chi-Square analysis. This tested the study's hypotheses to establish whether there was a difference in performance between hotels that had segmented their markets and those that had not applied the concept. Multivariate analysis was also carried out to attempt create a model of ingredients and factors that would explain the various occupancy performances.

The independent variables for this research were represented by all the market segmentation elements or ingredients that included segmenting the market; forecasting occupancy future occupancy loads, allocating rooms in advance to the different market segments, denying accommodation to those unwilling to pay the higher rates during the high seasons and offering targeted discounts during the low season. The dependent variable included occupancy performance experienced when the five versions and factor combinations of the independent (ingredients) variables are applied. Lastly, multivariate regression analysis was carried out to attempt explain the performances of occupancy through the 5 MS applications, in Kenya's town hotels.

Findings

From this study, all the various star rated hotels had identified their market segments except the one star hotel strata. Over 70% of the two and four star hotels had also identified their different market segments, with the three star strata recording a 90% identification of their

market segments. The high identification of each hotel's market segments implies that the Kenyan town hotels have made efforts to understand the characteristics and needs of their different market segments. This concurs with Chiang, Chen & Xu, (2007), who argued that hotels must allocate rooms to the different market segments according to both the ability to pay the higher price and the forecast demand. This way, the hotel can extract maximum value from the available market segments and the stock of rooms.

When asked whether the different market segments attracted different room rates, over 91% of the four and the five star hotels confirmed that they did. Over 82% of the three star hotels also confirmed that they did while 67% of the two stars differentiated their market segments rates. Maintaining different room rates for the different market segments, gives the hotel the necessary allocating and discounting levers to deal with low and high demands profitably (El Gayar et al., 2011)

Findings of this study indicated that for the five star hotels, their major markets included the business segment (50%), the conferencing and conventions segment (50%), international tourists (33%) and domestic guests (17%) while the majority of the four star segments included international tourism (67%) and conferencing (67%). The three stars' majority market segment were the regional visitors and conferencing both at 41% while international tourism was even better at (59%) while the two stars' main market included the business segment (50%) and the domestic market at 33%. The one star depended on the domestic market segment (100%) and the business segment. (50%). The implication is that most of the different clusters of hotels in Kenya have segmented their markets into identifiable market segments with homogeneous characteristics. This concurs well with Enz (2001), Hanks (1992), Bentley (2007) and Lee et al., (2009), who pointed out that by understanding a market segment and its corresponding dynamics, hotel operators can segment their clients and create systems that can allocate rooms discriminatively, giving the hotel a competitive advantage.

The study found that except for the one and two star hotels, all the other hotels predicted the future booking patterns of their markets, by segments. Over 30% of the five star hotels predicted their loads by segments in a continuous IT process. For the three-star hotels, the most popular forecasting process was daily (33%), monthly (33%), and continuous IT processing (17%). Kimes, (1989) concluded that segmenting the market to predict the future occupancy and booking patterns by the segment is a key rationale for market segmentation. Advance awareness of the customers' ability to pay the higher rates or the lower rates, assists the hotel operator allocate the right rooms to the right guests (Donaghy et al., (1997).

When asked whether the hotel allocated its room's inventory to its various market segments in advance, according to forecast demand, 55% of all the five-star respondents confirmed that they allocated to forecast, while 45% said that they did not. In the lower categories, over 71% of the four star hotels allocated their room stocks to forecasts while only 21% of the three star hotels allocated their room stocks in advance. None of the two and one star hotels allocated their room stocks to predicted forecast. Without allocating rooms to this group in advance, it is likely that the group willing to pay the higher rate will find the hotel

committed to cheaper paying guests most likely of the leisure segment known to book early and enjoy higher discounts. In addition, Yoshi L., (2009) argues that today's hotelier must know the needs and characteristics of each demand segment and how to satisfy those tendencies in a way that maximizes profit, offering both solutions and discounts to encourage both arrivals and longer stays at the hotel.

A cross tabulation was carried out between the star rating of the hotels and the action of discriminating against the various market segments. The one star hotel did not discriminate the higher price shy-market and may not even had systems to do so; neither did 57% of the two star hotels. However, towards the up market end of the hotel industry, over 70% of the five star discriminates against the price-shy market, especially during the high demand periods. This is done by closing and opening the lower rates according to demand.

Literature suggests that the purpose of market segmentation is to allow managers be proactive in distributing the room inventory to the right segments, for the right room price. Moreover, they can make decisions that ensure the hotel achieves maximum revenue and occupancy (Yoshii L., (2009). To get the best results, however, El Gayar, et al., (2011), concluded that the rooms must be shared in advance to the different market segments according to both the ability to pay the higher price and the forecasted numbers in the different segments.

The respondents were asked whether segmenting the market improved their revenues. Over half of the respondents (55%) confirmed that segmenting the market assisted improve their revenue by over 6%, while 3% thought that segmenting had no effect on occupancy at all. None of the 55% positive respondents were definitive about reserving and protecting rooms for the forecast and identified segment of higher-paying bookings. In fact, no hotel confirmed that it could deny accommodation to any paying client, for the above reason, and in particular, to their repeat or regular price sensitive customers. The issue with Kenyan town hotels was the need for the payment of deposits for any accommodation to be blocked. Most hotels hardly reserved a booking without a deposit. The common challenge was how to deal with block bookings that had no advance deposits. Managers confirmed that such bookings had to have an agreed cut-off date within which the deposit must be paid; otherwise the booking would be released into the market.

Hospitality business is cyclic and the size of this market can easily be established by looking at previous performances. The manager who, for example, has a deeper understanding of their market segmentation dynamics is able to hold on to their rooms a little longer allowing for the price-insensitive-late-booking-business-guests to book late. Without understanding the hotel's market segmentation-dynamics, such tactics as holding out rooms for the better paying clients could be risky business that may occasionally leave the manager holding unsold room-nights. Asked whether they found these tactics useful, the one star hotels did not know whether segmentation and its strategies were useful or not and it was apparent that segmentation was not in application in these hotels. However, over three quarters (83.3%) of the four star hotels considered segmentation very useful. Sixty percent of both the four star and five star hotels considered segmentation and its strategies, also, to be very useful. Over 50% of the two star hotels thought that segmenting the market

was a very useful strategy. Consequently the implication was that over 80% understood the usefulness of segmentation strategy. Seonah et al., (2009), concluded that for MS implementation to succeed, the managers needed to *really* know *who* their customers *really* were.

The rule of thumb for acceptable ‘normal’ hotel occupancy is 70%, Coltman and Jagels, (2008). This means that at the 70% occupancy threshold, the hotel should be regarded as making acceptable returns for its investors. The study was, therefore, guided by the 70% occupancy barrier as the threshold to measure successful occupancy performance levels (above 70%), against those that did not perform (under 70%). The study, thus established two levels of occupancy performances: above the 70% ‘normal’ occupancy and below 70% occupancy. Application and implementation of the various elements of market segmentation were then cross tabulated against these two major levels of occupancy performance. The two levels allowed for the consideration of the performances through the following hypothesis:

H01: There was no significant difference in occupancy performance levels between town hotels that had segmented their markets and those hotels that had not segmented their markets.

The study found that all (100%) of the five stars hotels had implemented market segmentation while the one star hotel had not segmented its markets at all. In contrast, over 29 % of the two star hotels and 32% of the three star hotels had identified their various markets segments. In general, 66% of the hotels admitted that they had segmented their markets while fewer than 34% of the hotels were yet to segment their markets. This confirmed that the implementation of market segmentation was in place, in Kenya’s town hotels. Yelkur and Herbig, (1997) concluded that one of the first goals of the hotel was to segment its market into several fairly homogeneous sets of consumers that can then be served accordingly and profitably.

Results of the chi-square analysis indicated that there was a statistical relationship between the different levels of star ratings and market segmentation by the hotels. This is confirmed by the chi-square significance p-value = 0.002 is less than the critical value of P>0.05 at a confidence level of 95%. In addition, the Contingency Coefficient value (C=0.514) shows that the relationship between identification of market segments and the different classifications of hotels is strong. This meant that a five star hotel was likely to have applied market segmentation than the one star hotel. This suggests that the application of market segmentation impacts on occupancy performance levels in a similar manner, benefiting those hotels that had implemented market segmentation. The star ratings above the three to five star clusters seem to be drawing better occupancy benefits with segmentation, where 40% of those who had identified and segmented their markets scored beyond 70% on occupancy. Indeed, all (100%) those who did not identify and segment their markets, achieved below 70% on occupancy. Sarheim, (2008), argued that segmenting the market was the most effective way to understand the different needs of the market and thus garner the better rates and occupancies from the market place, by providing for the different segments’ needs.

To investigate market segmentation and have a deeper understanding of the market segmentations' ingredient, various sub-elements of the ingredient were identified and cross tabulated against occupancy performance. The elements included identification of the various market segments of town hotels; segmenting markets to gain competitive advantage; allocating rooms in advance to forecast loads and the use of different room rates/discounts for the different market segments. Consequently, this implied that the facility that had identified their market segments was more likely to have implemented market segmentation, forecasted their loads, allocated their rooms in advance and denied or booked their different segments in their operations, as necessary. The results were cross tabulated against the hotel's star rating-levels.

The study revealed that those hotels that had an occupancy performance level of over 70% had identified their market segments in their operations. In contrast, all the hotels that had not identified their market segments had occupancies below the market average threshold of 70%, implying that hotels that identified and segmented their markets were likely to precipitate better performances. The analysis on chi-square test confirmed that there was a significant statistical relationship ($p < 0.05$) between the level of occupancy performance and the identification of the market segments. This was further vindicated by the contingency coefficient value ($C = 0.398$) that showed some strength in the relationship between occupancy performance and identification of market segments.

Findings showed that 90% of those hotels that allocated their rooms in advance had a high occupancy performance of over 70%. In contrast, about 80% of those who did not share their rooms in advance to forecast segments had an occupancy level below 70%, as illustrated in table 6. The analysis on chi-square test revealed that there was a significant relationship ($p < 0.05$) between the level of occupancy performance and distributing available stock of rooms in advance to the load forecasts. The contingency coefficient value $C = 0.550$, further, showed that the relationship is not only significant but is also strong.

The study results indicated that all (100%) of the hotels that performed beyond 70%, used different room rates for their different market segments. The analysis on chi-square test confirmed that there was a significant relationship ($p < 0.05$) between the level of occupancy performance and the use of different room rates for the different market segments. The contingency coefficient value ($C = 0.251$) further indicated that strength of the relationship between occupancy performance and the use of different room rates and different discounts for the different segments is not very strong.

In accordance with these findings, the null hypothesis was rejected. Harewood (2006) asserts segmenting the market, allows the hotel to market the same hotel room to different market segments at different prices, gaining at both the occupancy and the revenue performance levels

The study was also interested in determining which market segmentation elements best predicted the higher occupancy among the ingredients' or elements various tenets. Multiple regression analysis was used as the number of variables in this study, varied in number, with every ingredient. In this section, efforts were made to try and identify variables

market segmentation's ingredients' tenets (or elements) that may determine the levels of occupancy in town hotels. The rationale behind using multiple regressions included the consideration of specific variables without the effect of other variables and elements in the model (Field, 2005). It allows for the evaluation of each variable from a set of given variables, in explaining the performance and contribution of the specific variables.

The five objectives of the study sought to identify the MS determinants of occupancy differences among Kenyan town hotels. There were three alternatives regression processes that generally lead to the same results. These were the backward elimination method, forward selection and stepwise regression methods. Backward elimination was selected for its simplicity.

All the predictors (MS ingredient elements, or tenets) were placed in the model for consideration. These predictor variables were eliminated one at a time until the remaining variables in each model were shown to make significant contributions to predicting occupancy. The variable deleted at each stage was the one that was least significant, having the largest P-value. The sequence of backward elimination included placing all potential explanatory variables in the regression model. Where all the predictor variables made significant contributions at $p\text{-value} < 0.05$, then that model was retained as the final one, otherwise, the variable having the largest P-value was removed (Field, 2005). Hence, the process continued until each of the remaining predictor variables explained a significant partial amount of occupancy. The final results were presented for every objective's (elements) model. Table 1 is such a model identifying the best predictors of occupancy for the market segmentation MS model.

Table 1: The Market Segmentation Model: MS Predictors of Occupancy

Predictor Variables	B	Beta	T	Sig
(Constant)	2.52		9.398	.000
Identifying and segmenting the market	0.713	0.76	3.854	.00
Allocating rooms to forecast demand by segments	0.401	0.448	3.192	0.003
Discriminating according to willingness to pay full rate	0.145	0.141	1.002	0.323
Offering discounts and rates to different segments	0.03	0.029	0.242	0.81

Dependent Variable: Occupancy; R Square = .474

The occupancy predictors from the market segmentation ingredient model, as shown in table 1, indicates that the model could only account for 47.4% of the observed occupancy, leaving out 52.6% unaccounted for. This implied that over 50% of the observed room rates were due to other factors. However, the study found that out of the four independent variables regressed against the dependent variable of occupancy levels, only 2 variables were significant, that is, identifying and segmenting the market $p=0.000$ and allocating rooms in advance to forecasted demand by segments $p=0.003$. Furthermore, the Beta weights identified segmenting the market as the best predictor of occupancy (Beta 0.76) while the regression coefficient ($b = 0.713$) indicated that implementing market segmentation would increase occupancy to over 71.3%. Besides, the t value was the largest ($t=3.398$), confirming the greater contribution of this predictor to the model. Fields, (2005) argues that the larger the value of t, the greater the contribution to the model.

Conclusions

These findings confirm that segmenting the market allows the hotel to gain competitive advantage. This was confirmed by the cross tabulation tests that demonstrated that not all the hotels that had implemented the various elements of segmenting the market achieved occupancy above the 70% level. Many of them operated on occupancy below 70%. What was defining was the fact that all the hotels that had occupancy above 70% had segmented their markets, except for one outlier hotel. In addition, segmenting the market ensures that the managers really know their markets. Arguably, the managers who identify and segment their markets, tend to have deeper understanding of the different needs of their different market segments, confirming the observation by Kimes (1989) that segmenting the market allows the facility to sell the right product at the right time, to the right customer for the right price. For segmenting, the Kenyan market two predictor variables have come out strongly as the elements with the highest influence on occupancy, Table 1.

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The Effect of Abusive Supervision on Employee Silence: The Mediating Effect of Perceptions of Organizational Politics

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Abstract

Based on conservation of resource theory, this paper explores the mediating effect of perceptions of organizational politics in the relationship between abusive supervision and employee silence. We also explore the moderating effect of leader-member exchange in the relationship between abusive supervision and perceptions of organizational politics. In total, 560 junior employees were sampled through questionnaire. The results indicate that: perceptions of organizational politics mediated the relationship between abusive supervision and employee silence. In addition, leader-member exchange moderated the relation between abusive supervision and employee silence in such a way that abusive supervision demonstrated stronger positive influence on perceptions of organizational politics for those who have a poor quality of leader-member exchange.

Keywords: abusive supervision, organizational politics, perceptions of organizational politics, employee silence, leader-member exchange

Introduction

As a typical behavior of negative leadership, abusive supervision has received wide attention in China and abroad in recent years. Abusive supervision refers to “subordinates’ perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact” (Tepper, 2000). As so far, scholars have analyzed the harm roles that abusive supervision played on the organization and staff from multiple perspectives. Firstly, from the individual perspective, existing researches have shown that abusive supervision plays a significant negative effect on employees live and work, for example it can cause employees to feel emotional exhaustion, decrease sense of psychological security (Marilyn,2014), reduces job satisfaction (Yukl,2002), job performance (Hoobler, Brass, 2006) and employee creativity (Liu Wenzhong, 2002), increase turnover intention (Marilyn,2014), and even cause counter productive work behavior (Tepper, Duffy & Shaw). Secondly, from the group perspective, Wu Longzeng and Liu Jun found that abusive supervision would reduce team performance by reducing management team communication and team effectiveness (Wu Longzeng, Liu Jun & Liang Shumei, 2013). Marshall also found that abusive supervision atmosphere will affect group cooperation and organizational citizenship behavior through group identity, and it also affects the group performance through the group efficiency (Marshall, Maureen & Robert). But few scholars explore abusive supervision’s impacts to the organization from the perspective of organizational politics.

In general, the supervisors who implement abusive supervision always carry some purposes. For example, they want to maintain personal dignity and influences. So the leadership style also can be regarded as a political act that a manager takes in order to maintain its authority (Liu Xiaoyu, Liu Jun, 2014). Facing this kind of political behavior, the subordinates usually make two options: (1) Fall into the organizational politics to change the original political distribution; (2) Avoid organizational politic to reduce resource depletion, such as keeping silent, reducing organizational citizenship behavior. When the supervisor implements abusive supervision to the subordinate, the subordinate would perceive insulted and increase their perceptions of organizational politics , which may threaten and cause their loss of emotional resources, such as self-esteem and self-confidence. According to the conservation of resource theory, people usually try to get their own physical and emotional resources and protect them. The first principle of conservation of resource theory is that loss of resources is more important than getting the resources. Therefore, avoiding organizational politics is more important than falling into it. So the subordinates tend to keep silent to consolidate the existing resources. In other words, abusive supervision enhances the subordinate perception of organizational politics and results in employee silence.

So whether the effect will differ for different subordinates? According to the contingency theory of leadership, the effectiveness of leadership largely depends on the situation, so it must consider to match the situation elements. For this, this paper focuses on two issues: firstly, this paper explores the mediating effect of perceptions of organizational politics in the relationship between abusive supervision and employee silence; secondly, this paper explores the moderating effect of leader-member exchange in the relationship between abusive supervision and perceptions of organizational politics. The research framework is shown in figure 1:

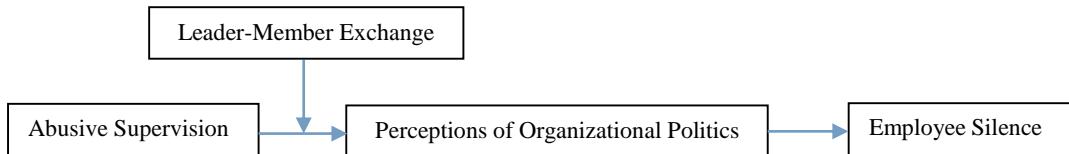


Figure 1: Research Framework

Theoretical basis and research hypothesis

Abusive supervision and employee silence

Employee silence was firstly proposed by Morrison and Milliken in 2000, and it was defined as the behavior that the employees retain personal views about the problems existing in the organization. On the basis of the previous studies, Dyne (2003) carried out on their studies, he believed that employee silence was not the opposite of employee voice behavior but a behavior that employee behaved after weighing self-interest and careful consideration. In other words, before keeping silence, employees must have understood something about the events. The employee who keep silence but lack of understanding it does not belong to the category of employee silence.

As for the cause of employee silence, scholars have done a lot of research, which showed that the style of leadership was the key factors causing employees to keep silent. Morrison (2000) argued that employee silence was rooted by implicit management concept of the top managers and fear to face the negative feedback. However, as the typical form of negative leadership, what abusive supervision advocates are authority, high pressure and despising subordinate's voice. As a result, This style of leadership actually passed some information to subordinates that the leader is not interested in their advice. Instead, Leaders may consider this behavior as a way that employees are opposed to their leadership and abuse more to the subordinates. Therefore, this paper puts forward the following hypothesis:

Hypothesis 1: Abusive supervision has significant predictive effect to employee silence.

The mediating effect of perceptions of organizational politics

In general, the organizational politics means a sense of shared management. The core of it is to guide others to evaluate and explain events so that they can get what they want. And the perceptions of organizational politics refer to a subjective feeling and evaluation about this kind of self-interested behavior. Wu Xiaoci (2001) conducted a localization research on perceptions of organizational politics, and the research showed that the supervisor's behavior is an important dimension of perceptions of organizational politics. So, It is an important source of employee's perceptions of organizational politics about what they perceive from the supervisors' behavior. In general, The supervisor who abuse their subordinates often has a purpose, such as raising the personal influence or excluding outsider. So, abusive supervision is also a kind of political behavior. And when the subordinate perceive abusive supervision from his supervisor, his perceptions of organizational politics will be enhanced. What's more, abusive supervision often accompanied with the phenomenon that organizational centralization get increased, organizational trust atmosphere was destroyed and the subordinates lacked resources. Ma Chao (2005), in his doctoral dissertation, discusses the antecedent variables of perceptions of organizational politics. And the result shows that the lack of resources, trust atmosphere, centralization and formalization are the main antecedent variables of perceptions of organizational politics. Therefore, this paper puts forward the following hypothesis:

Hypothesis 2: Abusive Supervision has a significant positive influence on perceptions of organizational politics.

According to the conservation of resource theory, individuals would try to obtain and maintain their existing resources instinctively. when the individuals perceive a possibility of losing resources or being hard to get new resources about the working environment, he will feel stressful and unsafe (Hobfoll, 1989). And the increase of perceptions of organizational politics caused by abusive supervision will make employees become sensitive to the behavior of the supervisor and enlarge this kind of insecurity. Therefore, based on the conservation of resource theory, perceptions of organizational politics may cause loss of employee's resources, such as employee self-esteem, job insecurity and the emotional commitment. Besides, the principle of resource depletion shows that compared to obtain new resources, the individuals whose resources are losing will be more worried

about a further loss of resources. So, the threat of losing resources will make subordinates prefer to protect their existing resources, rather than get new resources. Employee silence is the conservative strategy that employee take to protect existing resources when they have a clear awareness of the surrounding environment so that employees feel a sense of control of their resources. Therefore, this paper puts forward the following hypothesis:

Hypothesis 3: Perceptions of organizational politics play a mediating effect of politics in the relationship between abusive supervision and employee silence.

The moderating effect of leader-member exchange

Leader-member exchange theory (LMX theory) is an important leadership theory about exchange relationships between supervisors and the subordinates in organizations. This theory refers that leaders have a different LMX with different subordinates, which will influence their management style. In general, the social exchange relationship can be divided into two categories: high-quality exchanges (also called “in-group”) and low-quality exchanges (also called “out-group”). “In-group” means that some subordinates establish a special relationship with leaders and tend to get more care from leaders, such as more information, more trust and so on. On the contrary, “out-group” means those subordinates who just establish a common exchange relationship based on formal rights. Especially, in China where it emphasizes relationships, this kind of phenomenon is significant. The employees who are in-group can not only get support from the leaders on the work, but also get a lot of attention even in private life, in which the role of leaders is more like a big brother rather than the supervisor. So, the subordinate reacts differently to the same management behavior because of different leader-member exchange relationships. For the “In-group”, since the supervisors and subordinate trust each other and communicate smoothly, the subordinate can always understand the implications of the abused behavior. In contrast, for the “out-group”, they can not grasp information so well and do not have a good relationship with their leaders, so they often have a sense of tension and tend to link the abusive behavior to political behavior when get abused. Some would even evaluate the political implications of the abusive behavior actively and take actions to consolidate their own resources. Therefore, this paper puts forward the following hypothesis:

Hypothesis 4: Leader-member exchange plays a moderated role in the relationship between abusive supervision and perceptions of organizational politics. Specifically, for those who have low-quality exchanges, the impact of Abusive Supervision on perceptions of organizational politics is relatively strong.

Method

Sample

In this paper, the research objects are the mid-level and ordinary employees, who have a direct leader in their formal organization. This paper relies on questionnaires to obtain the sample data, and in order to avoid the effects of homologous variance, the surveys were conducted two times, spacing for a month. The first survey mainly investigates the content of abusive supervision, leader-member exchange and perceptions of organizational

politics. And the second survey mainly investigates the content of demographic variables and employee silence behavior. In this paper, 600 questionnaires were distributed, and finally recovered 560 effective questionnaires. Among the effective samples, the number of male is 316 which accounts for 56.4%, while the number of female is 244 which accounts for 43.6%. In the aspect of age, their age are mainly in 16-24 and 25-30 years old which account for 52.3% and 43.1% respectively. In the aspect of education, most of respondents are undergraduates which accounts for 86.2%; In the aspect of working years, their working years are mainly under 1 year and 1 to 3 years which accounts for 32.1% and 43.4% respectively.

Measurement

Abusive supervision

The abusive supervision scale references the 15-item scale compiled by Tepper in 2000, which was translated into Chinese by Wu Zongyou, a professor in Taiwan and has been used in Chinese situation by scholars, such as Aryee. In this study, the result shows that the whole reliability coefficient of the abusive supervision scale is 0.91(> 0.70), which shows this scale is reliable.

Perceptions of organizational politics

The perceptions of organizational politics scale references the 15-item scale that Ma Chao (2006) developed under Chinese cultural background. In this study, the result shows that the whole reliability coefficient of the Perceptions of Organizational Politics Scale is 0.85.

Leader-member exchange

The leader-member exchange scale references the 16-item scale which was compiled by Wang Hui (2004) under Chinese cultural background. And the scale shows good reliability and validity through demonstration. In this study, the result shows that the whole reliability coefficient of the scale is 0.95.

Employee silence

The employee silence scale references the 16-item scale compiled by Zheng Xiaotao under Chinese cultural background, and in this study, the result shows that the whole reliability coefficient of the scale is 0.92.

Analysis and results

Table 1 shows the mean, standard deviation and the correlation coefficient of the main variables. From the table 1, we can know that abusive supervision and perceptions of organizational politics are significantly positive correlation ($r=0.57$, $p<0.01$), So as the employee silence ($r=0.31$, $p<0.05$). Besides, perceptions of organizational politics and employee silence are also significantly positive correlation ($r=0.55$, $p<0.01$) . The results provide a preliminary validation of our hypothesis.

Table 1 Descriptive Statistics and Correlations

Variables	1	2	3	4	AS	LMX	POP	ES
Gender	1							
Age	-	0.35**	1					
Years of working	0.07	0.32**	1					
Education	0.00	-0.18	-0.27*	1				
Abusive supervision	-0.27*	0.15	-0.11	0.22	1			
LMX	-0.00	0.00	-0.04	0.01	-	0.65**	1	
Perceptions of organizational politics	0.10	-0.16	0.05	-0.16	0.57**	-	0.55**	1
Employee silence	0.13	-0.18	0.07	-0.18	0.31*	-0.45*	0.55*	1
Mean	1.43	1.53	1.85	3.0	2.27	3.28	2.98	3.11
Standard deviation	0.50	0.63	0.56	0.56	0.94	0.84	0.59	0.70

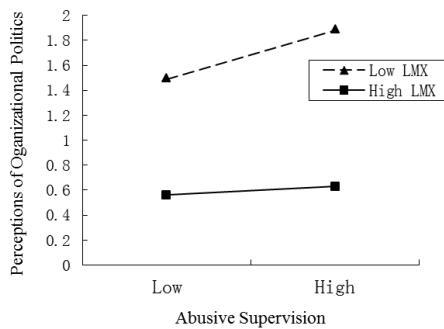
Note : “*” means $P<0.05$, “**” means $P<0.01$, “***” means $P<0.001$

Table 2 shows the hierarchical regression analysis results. From the table 2, we can know that after controlling the population statistical variables, the results indicate that: (1) Abusive Supervision has positively significant influences on employee silence ($\beta=0.48$, $P<0.01$) , which supports hypothesis 1; (2) Abusive Supervision has positively significant influences on perceptions of organizational politics ($\beta=0.69$, $P<0.01$) , which supports hypothesis 2. According to the research of Baron and Kenny, we could judge the mediating role of perceptions of organizational politics. AS it is shown in table 2, Abusive Supervision has positively significant influences on employee silence ($M2 : \beta=0.48$, $P<0.01$, $M5 : \beta=0.69$, $P<0.01$) , however, when the variable of perceptions of organizational politics enters into the regression equation, the relationship between them weakens (from $M2$, $\beta = 0.48$, $p <0.01$, down to $M3$, $\beta = 0.29$, $p <0.01$). It suggests that perception of organizational politics play a mediating effect on the relationships between abusive supervision and employee silence, which supports hypothesis 3. As for the moderating effect of LMX, $M7$ model indicates that the interaction between abusive supervision and LMX would have a negative impact on perceptions of organizational ($M7 : \beta=-0.14$, $P<0.05$) .In other words, the better the quality of leader-member exchange relationship is, the positive influence on perceptions of organizational that Abusive Supervision plays is weaker. In order to reflect the moderating effects of LMX more directly, according to the steps provided by Aiken and West (1991), the paper draw the interaction plot of abusive supervision and perceptions of organizational politics to test the interaction of them which is shown in figure 2. As shown in figure 2, when confronted with abusive supervision, high-quality LMX members would perceive organizational politics less than low-quality LMX members, which supports hypothesis 4.

Table 2 The Results of Hierarchical Regression

Model	Employee silence				Perceptions of organizational politics		
	M1	M2	M3	M4	M5	M6	M7
Gender	0.07	0.19	0.08	0.04	0.02	0.18	0.02
Age	-0.22	-0.28	-0.14	-0.16	-0.25*	-0.23	-0.00
Years of working	0.12	0.15	0.08	0.09	-0.5	0.11	0.01
Education	0.14	0.02	0.05	0.12	0.12	-0.03	-0.00
Abusive Supervision		0.48**	0.29**		0.69**	0.55**	0.54**
Perceptions of organizational politics			0.57**				
LMX						-0.32**	-0.32**
Abusive Supervision *LMX							-0.14*
R ²	0.07	0.21	0.32	0.05	0.47	0.49	0.30
ΔR ²	0.00	0.14	0.26	-0.01	0.42	0.43	0.26
F	1.06	3.12*	4.72**	0.80	10.45**	9.19**	7.62**

Note : “*” means P<0.05, “**” means P<0.01, “***” means P<0.001


Figure 2 Abusive Supervision and Perceptions of Organizational Politics Moderated by Leader-Member Exchange Relationships

Discussions

Firstly, the paper assumes and verifies that abusive supervision has positively significant influences on employee silence. According to the reciprocal principle of social exchange theory, when the leader supports employees with positive behavior such as active guide and authorization, the employees will work hard in return. In contrast, when the leader urges employees with negative behavior such as threat and abuse, the employees will return in a negative way. However, as the subordinate, it is clearly undesirable for them to response head-on confrontation towards abuse supervision, because the leaders are the decision-makers of resource allocation. As a result, the employees will usually choose to keep silent to vent their dissatisfaction of abusive supervision and protect themselves. Thus, it can be inferred that employee silence is a behavior trying to protect themselves and avoid to work, which will bring a negative influence to the organization. For the individuals, although in the short term, the silence can express their dissatisfaction with abusive behavior, in the long term, the silence behavior will make them lack of

communications and feedback from their supervisors, resulting in poor job performances and even leading to more abusive behavior.

Secondly, the study confirms that perceptions of organizational politics play a partial mediating effects on the relationship between abusive supervision and employee silence from the unique perspective of organizational politics. In the past, the researchers often explored the influences about abusive supervision from the perspectives of equity theory and the psychological security. Therefore, this study not only enriches the research of organizational politics and abusive behavior, but also widens the dependent variable perspective of organizational politics. Besides, this paper shows that the enhancement of perceptions of organizational politics can lead to employee silence, a defensive strategy, that employees take to maintain the existing resources. Because perceptions of organizational politics increase employees' anxiety, and the anxiety make the employee get feared and enhance their protection consciousness, resulting in a defensive silence.

Finally, the article considers the contingency factors of leader-member exchange relationship when it discusses the effects of abusive supervision. And the result shows that the quality of leader-member exchange relationships would affect the effect of abusive supervision. The better the quality leader-member exchange relationship is, the positive influence on perceptions of organizational that Abusive Supervision plays is weaker. This is actually consistent with Chinese cultural situation that Chinese people attach importance to interpersonal relationship and they pay much attention to maintaining relationships and "circle culture". When the "in-group" suffers the abusive supervision, they will consider it as a strict requirement, however, when the "out-group" suffers the abusive supervision, they will immediately detect this behavior and increase their perceptions of organizational politics, taking some actions to deal with it. because the "out-group" is sensitive to the words and deeds of their leaders.

Conclusions

Based on the conservation of resource theory, the paper discusses the abusive supervision's influence on employee silence from the perspective of organizational politics. The study found that:

- Abusive Supervision has positively significant influence on employee silence.
- Perceptions of organizational politics play a partial mediating effects on the relationship between abusive supervision and employee silence.
- Leader-member exchange relationships play a moderating role in the relationships between abusive supervision and perceptions of organizational politics.

Implications for practice

Both academic and management practice prove that abusive supervision will cause great harm to the organizations. And, as the new generation employees gradually become the main power in the workplace, the problem caused by the negative style of leadership will be more acute. So effective measures should be taken to avoid this negative style of leadership. According to the results of this article, the following management advice is put forward:

- A strict monitoring mechanism should be established to assess the supervisors so that it

can avoid the leaders to misuse their authority or abuse their subordinates. At the same time, those who have a tendency to abusive subordinates should be put on record and should be educated and trained. In addition, The enterprise should connect abusive supervision with leaders' performance bonus, in other words, the abusive behavior will directly affect its individual performance.

- The organization should establish clear communication channels and encourage the staffs to express their opinions. As we know, abusive supervision is a kind of subjective perception or evaluation about their leaders by subordinates, thus different subordinates have different feelings even on the same behavior. Especially, in the organization, the leaders should pay more attention to the “out-group”, because they are more sensitivity to leaders' behavior. On the one hand, the leader should actively listen and understand subordinates' true thoughts, dissolve the misunderstandings in time and reduce its perceptions of organizational politics. On the other hand, the organization should let employees have chances and channels to express their thoughts, such as setting up a suggestion box or leaders regularly visiting day etc, so that when the subordinate cope with the abusive behavior, he could reflect the situation to a higher supervisor rather than preserve his sanity and keep silent.
- The organization can also take some measures from the human resources management practices. Firstly, the organization should avoid to select those who have domestic violence or easy to get irritable as a leader, because they have a high risk to abuse their subordinates. Secondly, for those who are already in positions of leaders, if they have a tendency to abusive subordinates, appropriate training should be given to enable them to recognize the feelings of being abused. For example, the leader and the employee can switch roles with each other, so that the leaders can know the feeling of being abused. Lastly, in the process of appraising leaders, the organization should increase the proportion that subordinates evaluate their leaders. To some extent, It could make the leader respect employee's self-esteem and psychological feelings. Thus, it would effectively reduce abusive behavior.
- As a manager, he should make examples, paying attention to their words and deeds and try his best to avoid organizational politics. At the same time, the leader should also investigate into the causes of perceptions of organizational politics and restrict the existing organizational politics.

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Masking Social Relationships and Psychological Distress in Norwegian Leaders: The Mediating Role of Suppressed Social Expressions

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Abstract

In everyday life individuals are playing different social roles, some of which may be quite demanding – and pressure to wear a social mask might be tempting, and sometimes necessary to obtain our personal and professional goals. For modern leaders the interaction with their followers is of great importance and many leaders suppress their expressions to obtain, or sustain a good relationship with their employees. However, this is regarded as a generally ineffective emotional regulation strategy and appears to be associated with the development of psychological distress. Role stress is strongly associated with both loneliness and regulation of emotions. This paper investigates whether masking social relationships by suppressing social expressions mediates this well-known relationship between stress and loneliness. The study sample includes 2.910 men and women in leading positions in Norway, 2013 (AFF-leader Questionnaire). Role stress was found to be significantly related to loneliness both directly and indirectly via paths mediated by suppressed expressions. Structural equation modeling (SEM) revealed an adequate fit ($RMSEA = 0.051$; $CFI = 0.91$). The results indicate that masking social relationships partly mediates the stress-loneliness link. The social significance of the study rests in the high rates of psychological distress in leaders and that the underlying mechanisms not yet are fully understood. In conclusion, this study shows that suppressed social expression is an essential factor that has to be considered when developing management programmes and planning work place interventions.

Keywords: social masking, suppressed emotions, role stress, loneliness, leader-follower relationship

An Analysis of a New Business Model: A Case of Alibaba-Ecosystem

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Abstract

Business ecosystem is a wonderland for the companies in the Internet era, which can make enterprises keep competitive and innovative in this pretty fiercer competition world, and this is the reason why in academia and business, there are the demand to research and practice the new business model-Business ecosystem. When the business ecosystem works well, each member will co-compete in balance in every stage in life cycle, including the enterprises with different responsibilities, stakeholders and other members. In nature, sometimes, the ecosystem will suddenly extinct because of changes, so does business ecosystem. As the business ecosystem grows, it may face with wither away without reformation. After coordination stage, the BE come into self-renewal stage which is the time to take action to avoid the decline. In this paper, we try to find out how the BE live through the self-renewal stage, mainly from the perspective of the core enterprises and supplementary from the niche players, through the case study of Alibaba. The theoretical contribution is to discuss the essence of the tactics from the perspective of power distribution taking in the period of self-renewal. Building on domestic and foreign researches, this article will analyze the Alibaba ecosystem to ascertain the rationality of the tactics that reverse the decline of BE, and search what the core enterprises should do at the self-renewal to keep the whole BE healthy and vigorous.

Keywords: business ecosystem, business model, case study

Introduction

Along with the maturity of the internet and the development of the IOT, shopping online become the part of our life. According to CNNIC 2014, online retail trading volume in 2014 is 2.79 trillion yuan increasing 49.7%, amount to 10.6% of total retail sales of consumer goods. There are about 361 millions people who shop online in China, compared with 2013 increasing 5.953 million, 19.7%; but only 55.7% net-citizens shop online. So there are still a great of potential customers in Chinese online shopping market. How to meet those customers' demand is the key point to expand this field and make this market prosperous. As the whole business market competition intensifies, e-commerce market is a sophisticated scene (WU Xiao-bo, ZHU Pei-zhong, 2013). The impact of culture on consumers can not negligible (R. Bruce Money, 1998; Dana L. Alden, 1999), which endow the online shopping market with uniqueness to some extent (Maris G. Martinsons, 2008). Under such circumstances, even though there is a large market, the electronic businesses' survival is still difficult. This has prompted businesses to alliance, which can improve the abilities of the firms to supply the more complicated solutions meeting the varied needs of consumers. Alliance is often

temporary, however, along with the completion of the product, it will be automatically die out. Such short-term cooperation doesn't satisfy the enterprises (HU Ganglan, & LU Xianghua, & HUANG Lihua, 2009), therefore the whole market are looking forward to a new business model - business ecosystem that can bring real sustainable development.

Hannan and Freeman(1977) are the earliest scholars who combine business with ecology, for the first time putting forward "organization ecology" and "enterprise groups". Moore(1993) propose the concept of business ecosystem, a kind of "economic union based on organizational interaction", which he believe it would be enough to make the enterprises understand the fundamental logic-how to cope with changes, while he thought the existing concepts are not sufficient. The reason to use biological ecosystem to explore business ecosystem is they both have the similarities: biological and ecological systems are with a large number of participants in a loose coupling, and the interdependence forms the basis of the ecosystem's stability, productivity and creativity. Consumables of one species is the output of another species, thus greatly improved the utilization ratio that species can save energy to focus more on output and may be completed the target which can not achieve before (Lansiti, & Levin, 2006). Peltoniemi and Vuori(2004) consider the organization of business ecosystem is a certain dynamic structure that is formed with interrelated organizations, while these organizations may be small businesses, large enterprises, universities or public institutions such as all may affect the organization of the system. Zahra and Nambisan(2012) contend the business ecosystem as a network, which can provide enterprises with resources, partners and important market information, noting that the formation of the network members need long-term interaction. E-commerce ecosystem is attached to the Internet business ecosystem. Internet enables the companies to cross the constraints of geographical location, to transfer the competition and cooperation platform to the Internet, so as to form an organic ecological system (HU Ganglan et al., 2009).

Alibaba, a Chinese native growing large e-commerce group, founded in 1999, is gradually building its own ecosystem. The development of Ali ecosystem is not plain sailing, especially the great changes of 2013, that significantly reversed the original structure to maintain the innovation of enterprise, and the reform of the core enterprise-taobao is thoroughly "disappear". Ali successfully listed in 2014, creating the strongest OPI. The great reform makes the whole group maintain a good development. So what kind of changing mechanism allow companies to reverse the decline of the BE is the most fundamental purpose of this article. We hope it is possible to extract the internal mechanism of this change on theoretical level to help electricity provider find a long-term trend way to development in the Internet age.

Literature Review

Business Ecosystem

In 1993, Moore suggests that the evolutionary circle of BE is divided into four stages: birth, expansion, leadership, self-renewal, and points out that in self-renewal stage the BE need to seek innovative strategies for sustainable development. But it did not specify what policies can help the ecosystem through this period. Another paper said: exploring, extending,

coordination and evolution as the four stages, as the same (HU Ganglan et al., 2009). Subsequent scholars from different perspectives to guide the development of business ecosystem for enterprises. Lansiti and Levin (2004) work on the structure's characteristics of business ecosystem, and they use the term "ecological niche" to describe the features, arguing that the interrelated enterprises occupy different ecological niches. From the perspective of ecological niche, they offer directional guidance to help enterprises effectively integrate into the ecosystem and obtain profit. Den Hartigh (2006), from the view of the network, think "business ecosystem should be a kind of network which depend on the network of suppliers and customers by around a core technology". They suggest the members of BE should focus on the inherent relationship that will help the enterprises understand the business ecosystem clearly and make the whole system development effectively. Kim et al. (2010), recognize business Ecosystem is the economic community of many symbiotic companies, and they emphasize the uniqueness of this system is its ability to create value that the individuals can not be achieved. On the theoretical level, the companies are encouraged to join the ecosystem. How to locate in the business ecosystem, how to make full use of the ecosystem to seek development, the above documents are able to respond to these practical problems. The limitation is that the state of the business ecosystem is different at the different stages, therefore, the issues that members facing with is different. There is no enough targeted solutions and methods for specific phases, while we try to give some, which is the most contribution of this paper.

The role of the members of the business ecosystem and evaluation

Members of the natural ecosystem have different responsibilities, so members of the business ecosystem also bear the different obligations. Marc Lansiti and Roy levien report members of the business ecosystem can be roughly divided into three categories: core enterprises, dominant controllers and niche enterprises. The core enterprise is mainly to provide a platform, for its job is to create value and share value. The one who can create value will attract companies to join the BE, which increases the diversity of the whole ecosystem to improve robustness; dominate firms occupy resources, who have the capability to create a lot of value but refuse to share; niche enterprises affects the entire ecosystem of operation, although existed in niche market, they constitute the main body of the whole ecosystem. At the same time, the number of niche firms is the important part of the business ecosystem assessment.

Mahaeven (2000) reports from three aspects to assess business model: the value stream, revenue stream and logistics; Gordjin (2002) proposes an assessment of the business model is to analyze the value flow between the different actors; Chesbrough (2003) argues that other items are also the content of evaluation, including the target market, value proposition, the internal structure of value chain, value network, and so on; Weng Junyi (2004) points out that the evaluation factors should cover in four aspects the value of object, the value of the content, value delivery and value recovery; Zhang Lingying (2005) puts forward we should estimate the BE from the market and customer value, keeping competitive advantages, etc.. In conclusion, it can be seen the core content of the evaluation to a business model is value. So as the business ecosystem, the core enterprises are the heart of value creating and sharing, they shoulder the heavy burden of assessment of the whole system. This article from the core enterprise business perspective to explore how to respond to the evolution of

the ecosystem is very reasonable.

Methodology

Case studies(Yin,2009) is the most appropriate way to study "what (how)" and "why".This paper attempts to answer "how to reverse the decline of ecosystem for the business ecosystem at the period of self-renewal, and why the measures taken by alibaba in evolutionary stage is effective".Therefore,we choose case study method is very logical.This paper adopts vertical single case study strategy,since longitudinal case study method can better understand the background of the case, and ensure the depth of the case study(Dyer W. G.,&Wilins A. L.,1991).Single case study can be used to consider the representative of typical cases,so it can help to understand the similar event better.In this paper,we discuss the Alibaba group following the typical principles(Eisenhardt K. M.,1989).Here they are:(1)from the industry perspective,e-commerce with free competition has developed rapidly in recent years in China, and there are many difficulties faced by (ZHANG Jinping,ZHOU You,2005;LIANG Yunwen,&TAN Liwen,2005;HU Ganglan et al.,2009;WU Xiao-bo et al.,2013);(2)from the representative of the enterprise,Alibaba as a large private enterprise in China,since 1999,drew lessons from foreign "e-commerce" business model-B2B,becoming the world second largest Internet companies(only after Google),and the entire Ali-ecosystem has gone through birth,expansion and coordination. When the whole BE confronted with the self-renewal stage,they took a bold initiative to make the healthy development of the ecosystem,so it has research value.

Data Collection

In this paper, considering the data availability,we choose two ways to obtain the relevant information:(1)Literatures.By CNKI,Web of Science,Proquest etc. Database,we collect with Alibaba's relevant research literatures at home and abroad, and the enterprise internal publications;(2)The records.Speech data from key executives within the enterprise,these data can provide effective information about the internal dynamics and strategic direction.

Data Analysis

This article takes a blended analysis strategy,which combines time series and pattern matching analysis,following the practice of case analysis(Yin,2009).Alibaba ecosystem building process can be divided into:exploring,extending,coordination and evolution of four phases;the paper is researched from the view of core enterprise in the evolution period of the business ecosystem,supplemented by niche enterprise, and the objective is to discuss the effectiveness of the Ali self-help measures - whether to keep the robustness of business ecosystem.

Case Description

Alibaba group was born in 1999,from the initial field-B2B,to C2C and B2C,while Ali gradually constructed Alibaba business ecosystem in information,funds,logistics,data flow and wireless,providing e-commerce infrastructure.In 2007,Ali clearly set a new demand-the strategy of ecological system,hence Ali consciously set up and adjust the whole ecosystem.According to the life cycle of ecosystem,we divide the development stages of Ali:exploration,1999-2003;expanse,2003-2008,coordination,2008-2011;evolution,2011 to now.

Foreseeing the flourishing of the Internet economy, Ali initially focused on B2B, as small and medium-sized enterprises are numerous without the necessary resources for development, while lack of specialized help for their business on the market. This was the purpose of the Ali group, and they founded the B2B websites: 1688 (www.1688.com) and alibaba international trading website (www.alibaba.com), providing trading platform for small and medium enterprises. When B2B gradually matured, the group expanded the map to C2C. In April 2008, Ali launched B2C-Taobao mall (Tmall), and in August 2010 they entered the wireless services publishing TaobaoApp.

From 2011, Ali Group has been exposed a lot of problems that are badly affected in many established things: in February B2B sincerity event which made accumulated good faith severely damaged; May, Alipay equity event; December, Taobao corruption; all of these are reflections of the entire ecosystems non-health status, which hinder the development of the ecosystem, and turn the BE to fading. A series of fire-fighting operations were started without delay: June 2011, Taobao was split into three parts: Taobao, Yitao, Taobao Mall, in order to adapt the disruptive changes in the field of search, SNS and e-commerce. While the demands of consumers are also changed that the customers are seeking specialized and personalized services. Taobao's resolution was to create greater business value, accordingly the large platform was split into small ones. The group attempted to seek an inspiring organization structure, and explore the new management model to fit the development of the Internet to allow companies to maintain advanced and creative. In the same year Ali positioned "E-commerce infrastructure provider", hence it released the occupied market and consumers for the sake of promoting the development of a more open business ecosystem, and it approached into the market as a participant, as a sponsor of building platform. At the end of 2012, Ali presented "one company, one ecosystem" at the meeting of the Group's strategy as the basic construction principles. In 2013, there was a total subversion, that the "Seven Swords" is split into 25 divisions, while Taobao vanished. But we can see the shadow of Taobao everywhere, such as shared division, business services division, Alimama division, air brigade division, local life division, consumer portals division etc..

After seven months of establishing the organizational structure as "seven swords", Ali conducted a large-scale changes that one of the core enterprise named Taobao played out of sight. Observing the whole big Taobao, the scope of business covers too large, as the platform at the core of the BE, that shrinks the living space of niche enterprises during the development, including some software services and data services which are the vital market for the niche firms. There are two ways for users to join Taobao platform: TOP development and bilateral market, which are also as the source to create value. As the e-commerce transaction platform Taobao attracts buyers and sellers to transaction, through the development of the TOP that can offer rich variety of services to satisfy users. The diversity of TOP has brought constant innovation and massive value to the whole platform, for example, more than 400 open APIs have attracted a large number of niche enterprises involved, and the operations of those niches, in turn, affect the entire ecosystem. Taobao's autocratic tendencies hit the niches, and it also reduces the ability of the platform to provide customers with services, as the core enterprise of the most important ability to create value is eroded, during the period of expansion. Core enterprise is the most key part of the business

ecosystem, once the core enterprise appear problem, so the whole system will encounter serious threats. Business ecosystem's stability increases with the incremental diversity of niche players, and the diversity of the core enterprise can form a kind of buffer force to ensure that the system can maintain stability in the face of changes. The core enterprise of dominance, not only squeeze the interspace of niches, but also reduces the ability of the platform to share value which is the most unique feature the cores have.

The first broken of Taobao was divided into three parts that the three parts are also positioning as the core enterprise providing the platform of create and share the value in entire ecosystem, and the room hidden in the occupation business has not been released by the first split. This transformation can not achieve the desired effect. The second split is more thoroughly, thoroughly detailed the whole taobao that scatter to several units, that release the hidden room to the niche players. This time can achieve the purpose of the self-renewal making the ecosystem avoid the destruction of ending, reborn and vitality.

Findings

Business ecosystem is not only a business model, but also a kind of logic with a look on the continuous development of the enterprise from the view of ecology. Different enterprises at different evolution stages of the business ecosystem respectively hold with different tasks, from the understanding of the key population needs, to the absorption of the available resources for development, then focusing on the ecological system internal contradictions, and perfecting the rules of ecosystem. All of these are to make sure the healthy and sustainable development of BE (HU GanLAN et al., 2009). Ali started with B2B, and grew with the high-speed development of the Internet. Jack Ma said that the time made the Alibaba, so the entry timing is very important to an enterprise (Sangmoon Park, 2011).

Taobao, the core enterprise, conducted two changes, that are both purposed to promote the development of the business ecosystem. The first time, small operation did not achieve the desired purpose; the second time, the reform brought vitality to the entire ecosystem, because the underlying cause is, not the change of the size or extent, the decentralization of the power source. Dynamic dispersion mechanism is originally used to solve the problem of train speed, while the traditional power mechanism is centralized power traction which focus on the front of the power source affected the whole train, however the new dynamic traction mechanism is a dynamic distributed power source that each car has a power source section scattering the power in each body. So it greatly enhance the speed of the train. Thus, the dynamic dispersion mechanism is seemingly simple on the surface, the result is to make the whole power has a qualitative leap to ultimately achieve the desired speed that can overcome the traditional power mechanism's problem.

Resolution is the same principle to core enterprise. The core enterprise can be regarded as the power source of the business ecosystem, and if there is only a single core enterprise, the entire ecosystem's growth needs more value creation by the members along with the development to maintain the balance of the whole system. A few core firms can't inject the system ample power to continually creating values, consequently the niche enterprises will choose to leave the ecosystem to avoid death with the entire ecosystem due to the underpowered. Once the core enterprise appears problem, the whole ecosystem will be in danger of d

ying. The split on taobao actually achieved the goal of expanding the original platform, and the groups adding together is not equal to the original big group, which enhance and expand the effects and scopes. The dispersal of one core enterprise tending to domination into small sections, intuitively makes the boundary extended that can increase the contact between enterprises to form more complex networks. And that ecosystem consisting of some core enterprises will have a larger interspace for niche firms, so in the similar niche will be more enterprises, which can reduce the coupling of the entire network and promote the anti-risk ability. When the number of the core business is raise, it can not only attract more niche enterprises increasing the diversity of ecosystem, but also cut down the risk of collapse with a plurality of core enterprises. Smaller companies at the same time simplify the management, and improve agility. From the human resource perspective, the development of the ecosystem requires constant input of talents. The diffusion of the ecological system can provide more opportunities for youth, and increase the number of middle managers.

Conclusions

The application of business ecosystem is followed the characteristics of Internet, and Internet culture is an ecosystem (Jack MA, 2007) which the core values are open and shared. Business ecosystem is not only the analysis of enterprise environment, also is not a simple operation mechanism. It is the logic with a new perspective given enterprise organismal characteristics, including living organisms symbiotic, balanced, growth, competition, self-organizing, adaptive evolutionary phenomena (Suan, & Tan Sen, 1996). Building Alibaba ecosystem is a sort of consciously establishment (ZHANG Jinping, & ZHOU You, 2005), which requires more than enough resources to support.

First of all, the future competition is the competition between business ecosystem, and the development of ecosystems need to go through several certain stages which have their own characteristics (Moore, 1993). As the core of the ecosystem, the core enterprises must be more conscientious and keep an eye on the current state of the enterprise and the requirements of the development. If needed, take bold change of corporate structure to make the ecosystem sustainable and healthy. The self-renewal period is the turning point of business ecosystem, to be end or rebirth. So what policy the core enterprise put into largely determines the ecosystem's future. The core enterprises during the period of the development are easy to gather resources that they may grow rapidly, expand the scale. Due to the duty of the market, the inflation of core firms will severely affect the health of the entire business ecosystem. Draw lessons from the mechanism of the dynamic dispersion, the oversized core business split into several core businesses will release the space for the niche companies (so there may be a niche firm when dispersed the core enterprise) to expand the existing platform and increase the room of niche companies, which all save business ecosystem back from the edge of extinction.

Secondly, niche enterprise depends on the core enterprise, and the operation of the ecosystem can not without the niche company. The development of niche firms is to become specialty. Set sights on a decade, even longer in the future, the groups focus on the policy and the trend, containing the trend of country, the trend of the world. What demands exist in the space are the source of earnings for the niche companies, and the only thing they should do is to look for how to better serve the other members providing personalized services. From

IT time to DT, the change is not just of technology, but the most important thing is the change of thinking, that is the transition from "me" to "others", which is the responsibility of the niche enterprises. Meeting consumers' needs is the purpose of the alliance, however, business ecosystem can fully satisfy consumers', develop potential customers and turn non-consumers to be consumers. Abandon short-term interests, and make the enterprise really into the ecosystem as a member of it. Serving other groups is to create their own space for further development.

Finally, with the development of Chinese economy, Chinese market gradually come into the landscape plans of the enterprises in the world. Alibaba's growth can bring some experiences to foreign enterprises, and it is worth noting the particularities of the market. Whether Chinese companies or foreign enterprise, whether Chinese enterprises go out or foreign enterprises bring in, all have to pay continued attention to the environment, from the national policy, to the humanities, the historical and cultural environment, which are all the key factors that constitute the particularities of the market. For the traits of the Chinese market, we should give attention to these elements, including demographic factors, such as population, age distribution, culture level; political factors, such as national policies have been introduced to understand government-funded projects, financial supports, etc., so the probability of entering will increase; economic factors, such as people's consumption structure, income level, etc.; Ecological factors, the strengthening of environmental protection, the rise of various environmental groups. In many ways, those are all different with the developed countries. In the past, only the huge scale enterprises pay attention to the factors about environment. In the future, no matter what the enterprise scale, as the part of an ecosystem, every firm must maintain apprehensive to the environment in order to retain the health of the entire ecosystem.

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Application of Smart Tourism

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Abstract

In the new period, smart tourism is an important technology to promote the transformation and upgrading of tourism industry in China, and also a new field of interdisciplinary integration and collaborative innovation. Nowadays, smart tourism plays an increasingly important role in the integrated innovation of hotel service process, sustainable development and utilization of cultural heritage, tourism destination marketing and management, public travel service and security management. And on the other hand, tourists also enjoy more convenient and better service provided by it. In the future, smart tourism is supposed to do more contribution to tourists, tourism enterprises and government department.

Keywords: smart tourism, transformation and upgrading, sustainable development

The Analysis of Product Categories and Sales Relationships among Valuable Customers through Data Mining and Its Application to a National Retailer through Association Rules and Cluster Analysis

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Abstract

Many businesses today have a large amount and various kinds of data related to their customers. Processing this data through various techniques and analyses and making it meaningful and useful for the enterprises will help them make healthier decisions and also increase their competitive capacity in today's globalizing and increasingly competitive world. The data generated by computer systems seems worthless alone because it does not mean anything to the naked eye. These data make a sense when processed in line with a certain purpose. In this regard, it is important to use techniques that can process large volumes of data. It is the task of data mining to turn raw data into useful knowledge. Data mining is the process of discovering the patterns and trends hidden in data sets. The purpose of this study is to determine the sales relationships between product categories and classes. To this end, data mining methods such as association rules analysis and hierarchical clustering were performed to analyze the receipts collected by a retailing company throughout a year. An overall evaluation was made after the implementation of methods and analyses and some recommendations were offered.

Keywords: retailer, data mining, database

Introduction

Retailing is a big service sector that brings together customers and the products of national and international manufacturers. By observing the retailing sector of a country, it is possible to make interpretations on its economic boom, competitiveness and standards also on the character and modernity of its social structure. "Retailing", or in a more scientific approach "retail marketing", is among the sectors that might play a crucial role in the transformation and development of societies. Retailing, especially organized retailing, has been one of the economic sectors where productivity, efficiency and effectiveness are best achieved. Moreover, retailing sector is highly sensitive to the developments in the economy.

Data mining was first articulated in the early 1990s and is described as a process that starts with the storage of data in large databases and ends with its presentation following analyses. A significant amount, such as 80 percent, of this process involves pre-operations like data storage, organization, normalization and variable selection. The remaining time is allocated to the analysis and presentation of the results. The analysis part of this process refers to the data mining while the whole process is called “knowledge discovery in databases”.

With the growth of databases, enquiries and the techniques implemented on the databases like OLAP (Online Analytical Process) have remained inadequate. For that reason, the data on the databases updated frequently and even synchronously are cleaned and arranged on a regular basis and then transferred to high capacity computers called data warehouses that are not updated as often as databases. On data warehouses are performed analyses developed by statistics, machine learning and computer science. Unlike statistics, data mining uses a deductive approach. Hidden and unpredictable information is extracted from the data. Rather than building models through hypothesis, it tries to discover structures called patterns which are not explicit yet predictable within a priori probability.

Recently, data mining has also gained popularity in retailing sector. Looking into the studies, it is seen that methods such as decision tree, classification analysis, logistic regression, the analysis of association rule and cluster analysis are often used in these studies. A literature review indicated that there are no studies extensively examining the relationships between product categories and product classes by analyzing long-term data. Consequently, examining the data from one year's receipts of an enterprise, the present study identified the associative sales relationships between product categories and classes and also the clusters formed by the product classes when sold together.

Methodology

The purpose of this research is to examine, using data mining methods (association rule: Apriori), the sales data (shopping details: receipt no, receipt date, time, products purchased etc.) that a supermarket collected via sales terminals and to reveal the relationships between categories. Thus, it is aimed that the analysis of association rules is performed using data mining methods to find out the rules for associative selling regarding product types and in the light of these rules various types of information are acquired about category management and arrangement-display (Silahtaroğlu, 2008).

At the end of the study, it is intended that stored data is converted into meaningful data sets and these data sets are exploited to boost the sales. In this way, an enterprise is likely to carry out studies using more systematic and thorough analyses.

A store in Konya owned by a Konya-based retailer that operates in nine different cities was included in the scope of the study. The data covers the whole year of 2013. The retailer has a customer loyalty card system which he runs using his own software. TR identity number is essential to update the card info. Any identity numbers entered into the system is instantly checked on ID Check screens of the Turkish Republic General Directorate of Population

and Citizenship Affairs and the age and gender information for each customer is verified. This way, the reliability of the data is ensured.

Data Collection

962.000 receipts were collected and examined for the data analysis. First, the total of the receipts were examined and customers using a card were selected from these receipts. Then, it was checked if the information of the card users was up-to-date and those up-to-date ones were selected.

Data from the collected receipts were grouped based on the category management system used by the enterprise. The card-based shopping rate was 62.93% for the store's turnover in 2013. Of this, 5.70% were those whose card information was not up-to-date. In sum, 57.10% of the shopping in 2013 was done by the customers having up-to-date card information. In relation to the number of shoppers, it was seen that a total of 109.000 people did shopping. Of these people, 73.33% were males and 26.67% were females. Data analysis also showed that 78.14% of them were married and 21.86% was made up of the singles. The table below presents the product category table used by the enterprise. The descriptions in this category table were abbreviated to be used during later data analysis. The abbreviations were provided in this table.

Table 1: Food and Non-Food Group Abbreviations

NON-FOOD GROUPS	Abb.
SHOES	AYK
GARDEN AND ANIMAL SUPPLIES	BAH
COMPUTER SUPPLIES	COM
LEATHER	DRI
DURABLE GOODS	DTM
ELECTRICAL EQUIPMENT	ELT
HOME TEXTILE	EVT
CARPET&FURNITURE	HMB
HARDWARE	HRD
READY-TO-WEAR	KNF
BOOK& STATIONERY	KRT
AUTO ACCESSORY	OTO
TOYS	OYN
AUDIO AND VIDEO EQUIPMENT	SGU
SPORTS EQUIPMENT	SPR
GLASSWARE	ZUC

FOOD GROUPS	Abb.
FOOD	GDA
Food – Chewing Gum	GDA.CK
Food – Crisps	GDA.CI
Food – Spices	GDA.BA
Food - Flour- Semolina and Starch	GDA.UN
Food – Dried Nuts	GDA.KU
Food - Medicinal Plants	GDA.SB
Food – Dough Additives	GDA.HA
Food – Ready-Made Food	GDA.HG
Food - Baked Foods	GDA.HU
Food – Drinks	GDA.IC
Food – Sweeteners	GDA.TT
Food – Frozen Foods	GDA.DO
Food – Dessert and Sweets	GDA.TA
Food - Biscuits and Chocolate	GDA.BI
Food – Pulses	GDA.BK
Food – Oil	GDA.YG
Food – Canned Food	GDA.KO
Food – Milk and Dairy Products	GDA.ST
Food – Olive	GDA.ZE
Food – Egg	GDA.YU
MEAT PRODUCTS	ETU
BAKERY PRODUCTS	FRN
PAPER	KGT
PERSONAL CARE PRODUCT	KTU
COSMETICS	KZM
GREENROCERY	MNV
CLEANING PRODUCTS	TMZ
RESTAURANT	RES

Modelling

In the modeling stage, the analyses were performed using appropriate models. Apriori and Web models included in the SPSS Clementine software were used for the analysis of association. Hierarchical clustering in the SPSS 22.0 was performed for the cluster analysis.

Thanks to the created models, the results of the analysis were obtained for the association rules between the category types and within the category groups.

Initially, Web Analysis was applied to the data in order to determine the relationships between the categories. Web Analysis is used to show the strength of the relationship between two or more areas. The shape of the lines depends on the strength of the relationship between two areas. Thick lines represent strong relationships. A thick line shows that two areas are strongly related and need to be examined. Moderate relationships are represented by standard lines and weak relationships by interrupted lines. The lack of line between two areas means either this pair does not occur in the same records or the number of occurrences remains below the threshold value. The relationships between the categories were represented visually by the graph generated. The thin lines between the categories indicate a low relationship of associative sales. Yet, Apriori model is needed to

determine these relationships more explicitly and accurately and to identify the sales relationships between categories.

Apriori model in Clementine software is used to determine the association rules. Apriori model extracts from a large dataset the rules that contain the highest information content. Support-Generality and Confidence-Accuracy values are computed while discovering the information content. In general literature, the support value demonstrates the probability of the item combinations and the confidence value indicates how many of the records that contain the first item will also contain the second item. In SPSS Clementine program, however, the support value indicates the total frequency of an antecedent in the dataset. The confidence value indicates the probability of both the antecedent and the consequent appearing in the same record and the rule support indicates how frequently these both components occur together. In other words, the term “support” in the literature is used as the rule support here. Definitions by the SPSS Clementine program were taken into consideration when analyzing the tables (Ergün, 2008).

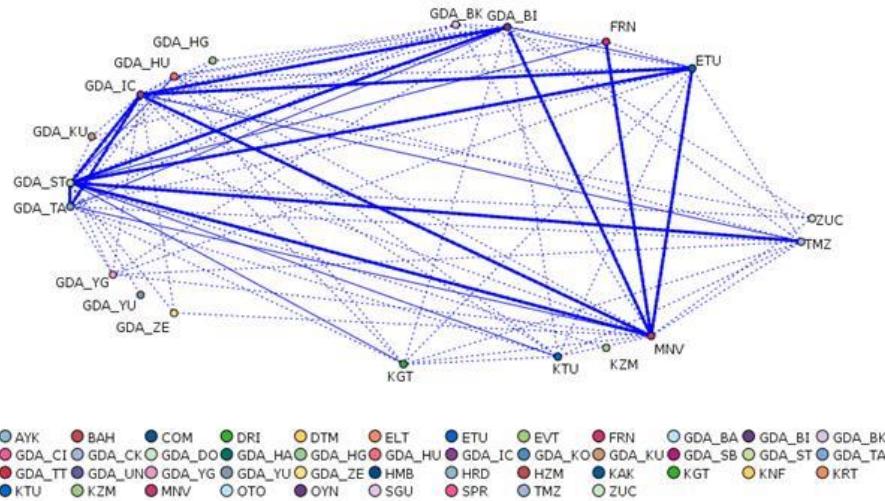
In the analyses, firstly all the categories were examined together and then they were analyzed one by one after obtaining an overall view.

Results

As can be seen in the table below, greengrocery transactions (43.43%) were calculated as having the highest frequency of occurrence among 962.141 transactions, followed by Food-Dairy Products (38.78%)

Table 2: Associative Selling Relationships between Categories

Cluster	%	Cluster	%	Cluster	%
Greengrocery	43,43	Food – Pulses	12,39	Shoes	3,49
Food – Milk & Dairy Products	38,78	Ready-to-Wear	12,33	Toys	3,32
Food – Drinks	36,01	Cosmetics	12,19	Home Textile	3,15
Food – Biscuits & Chocolate	32,80	Food – Olive	10,98	Hardware	2,32
Meat Products	28,10	Food – Ready-Made Food	10,56	Auto Accessories	2,03
Bakery Products	24,81	Food – Crisps	8,75	Durable Goods	1,71
Food – Desserts and Sweets	21,82	Food – Egg	8,44	Leather	1,30
Cleaning Products	19,63	Food – Chewing Gum	7,50	Personal Accessories	1,06
Personal Care Products	18,57	Food – Sweeteners	7,49	Sports Equipment	0,87
Paper Group	18,08	Food – Dough Additives	7,46	Services	0,77
Food – Baked Foods	16,87	Food – Spices	6,51	Carpet - Furniture	0,60
Glassware	16,56	Food – Canned Food	6,09	Audio Video Furniture	0,51
Food – Dried Nuts	13,21	Electrical Equipment	5,78	Computer Supplies	0,44
Food – Oil	13,15	Food – Flour Semolina	5,75	Garden Animal Supplies.	0,41
Book and Stationery	12,86	Food – Frozen Foods	5,61	Food – Medicinal Plants	0,41



The levels of the relationships in Table 2 are presented in the table below.

Table 3: Levels of Relationships

Connection	Cluster 1	Cluster 2
217,883	Greengrocery	Food – Dairy Products
190,162	Food – Drinks	Food – Dairy Products
177,063	Greengrocery	Food – Drinks
173,728	Food – Biscuits	Food – Drinks
169,384	Food - Biscuits	Food – Dairy Products
166,433	Meat Products	Greengrocery
162,583	Meat Products	Food – Dairy Products
152,932	Greengrocery	Food – Biscuits
134,449	Bakery Products	Greengrocery
131,268	Meat Products	Food – Drinks
125,574	Food – Dairy Products	Food – Desserts and Sweets
122,332	Cleaning Products	Food – Dairy Products
122,237	Food – Drinks	Food – Desserts and Sweets
119,248	Bakery Products	Food – Dairy Products
117,580	Food – Baked Foods	Food – Dairy Products
115,307	Food – Biscuits	Food – Desserts and Sweets
112,348	Meat Products	Food – Biscuits
111,984	Paper Products	Food – Dairy Products

Given the relevant graph and the graph outputs, it is seen that the strongest connection is between Greengrocery and Food-Dairy Products. It is followed by Food-Drinks and Food-Dairy Products.

The results of the analysis of the binary associative selling relationships between the categories show that the greatest rule support is between Food-Dairy Products and Greengrocery Products with a rate of 22.65%. As evidenced by nearly 23% of the receipts, Food-Dairy Products and Greengrocery Products are bought together by the customers who

are considered valuable. The difference between the first and second connection is the value of confidence. 58.40% of the customers buying a product from the category of Food-Dairy Products also buy a product from the Greengrocery category. It is evident in the table that there are a lot of categories with a support higher than 10 percent.

When ranked according to the value of confidence, the table items show that 82.43% of the customers buying Food-Eggs buy Food-Dairy Products, as well. This is seen in nearly 7% of the receipts.

Following this stage, the clusters were dealt one by one. Eight clusters with a turnover share of 5% or higher (Meat Products, Food-Dairy Products, Greengrocery, Ready-to-Wear, Cleaning Products, Food-Drinks, Food-Biscuits, Food-Desserts and Sweets) were examined in details.

Initially, the cluster of Meat Products was examined. Greengrocery has the strongest connection with the Meat Products. It is followed by the clusters of Food-Dairy products and Food-Drinks. Taking all these clusters together, it is seen that they constitute the daily needs of customers.

For the cluster of Meat Products, the results of the Apriori Algorithm are as follows: 61.57% of the Meat Products buyers also buy Greengrocery products. This is observed in 17.30% of the receipts. It is followed by Milk and Dairy Products (60.15%), which occurs in 16.90% of the receipts.

Food-Dairy Products are the second cluster analyzed. Greengrocery has the strongest connection with the Food-Dairy Products. It is followed by Food-Milk and Food-Drinks. For the cluster of Food-Dairy Products, the Apriori Algorithm revealed the following results; 58.40% of the customers buying Food-Dairy Products also buy Greengrocery products. This is observable in 22.65% of the receipts. It is followed by Food-Drink products with a percentage of 50.97%. This appears in 19.77% of the receipts.

The third cluster analyzed is the Greengrocery products. Greengrocery products hold the strongest connection with Food-Dairy Products. This is followed by Food-Drinks and Meat Products.

For the cluster of Greengrocery Products, the following results were obtained from the Apriori Algorithm; 52.15% of the customers buying Greengrocery products also buy Food-Dairy products. This is observable in 22.65% of the receipts. It is followed by Food-Drink products with a percentage of 42.38%. This occurs in 18.41% of the receipts.

Fourthly, the cluster of Ready-to Wear was examined. Ready-to Wear has the strongest connection with Food-Biscuits. It is followed by Food-Drinks and Greengrocery products. For the cluster of Ready-to Wear Products, the Apriori Algorithm revealed the following results; 39.70% of the customers buying Ready-to Wear products also buy a product from the category of Food-Biscuits. It is seen in 4.90% of the receipts. It is followed by Food-Drink products with a percentage of 39.70%. This occurs in 4.90% of the receipts. Though

this cluster has a large share of turnover, its frequency of occurrence in the receipts remains weak.

Cleaning Products are the fifth cluster analyzed and it has the strongest connection with Food-Dairy Products, followed by Food-Drinks and Greengrocery Products. Regarding the cluster of Cleaning Products, the results of the Apriori Algorithm are as follows; 64.78% of the customers buying Cleaning Products buy Food-Dairy Products, as well. This is observed in 12.72% of the receipts. It is followed by Food-Drink products with a percentage of 55.69% and this occurs in 10.93% of the receipts.

The cluster of Food-Drinks was analyzed in the sixth place. Food-Drink Products has the strongest connection with the Food-Dairy Products and it is followed by Greengrocery Products and Food-Biscuits.

In relation to the cluster of Food-Drinks, the following results were obtained from the Apriori Algorithm; 54.89% of the customers who buy Food-Drink products also buy Food-Dairy products. This is seen in 19.77% of the receipts, followed by Greengrocery products with a percentage of 51.11%. This occurs in 18.41% of the receipts

The cluster of Food-Biscuits was analyzed in the seventh place. Food-Biscuits has the strongest connection with Food-Drinks which is followed by Food-Dairy products and Greengrocery Products

For the cluster of Food-Drinks, the results of the Apriori Algorithm are as follows: 55.06% of the customers buying products from the category of Food-Biscuits also buy Food-Drink products. This is observed in 18.06% of the receipts. It is followed by Food- Dairy Products (53.68%), which occurs in 17.61% of the receipts.

Final analysis was carried out on the cluster of Food-Desserts and Sweets. This group has the strongest connection with Food-Dairy Products and it is followed by Food-Drinks and Food-Biscuits.

Regarding this cluster, the Apriori Algorithm produced the following results: 59.83% of the customers buying Food-Desserts and Sweets also buy Food-Dairy products. This is seen in 13.05% of the receipts. It is followed by Food-Drinks with a percentage of 58.24% and this appears in 12.71% of the receipts.

After the relationships between categories were established, hierarchical cluster analysis was performed using SPSS 22.0 for the purpose of determining the multiple-relationships of the products bought by the customers during their shopping. A total of 43 categories were generated and these categories were associated with each receipt and thus with each shopping record. 4.839.566 shopping transactions were detected in 962.033 receipts.

Greengrocery with a percentage of 8.63% is the most prevalently observed group in the receipts. It is followed by Food-Dairy products (7.71%) and Food-Drinks (7.16%). In non-

food products group, this is followed by Glassware and Stationery with a percentage of 3.29% and 2.56% respectively.

The process of clustering was comprised of 44 stages. In the first stage, it is seen that the first cluster was formed by Paper and Cleaning Products. These were accompanied by Personal Care Products in stage 8 and by Meat Products in stage 13. Illustration of a clustering process can be clearly seen in a dendrogram. Dendrogram is a graph that displays the strength of relationships by using lines. The dendrogram generated by the cluster analysis is presented below.

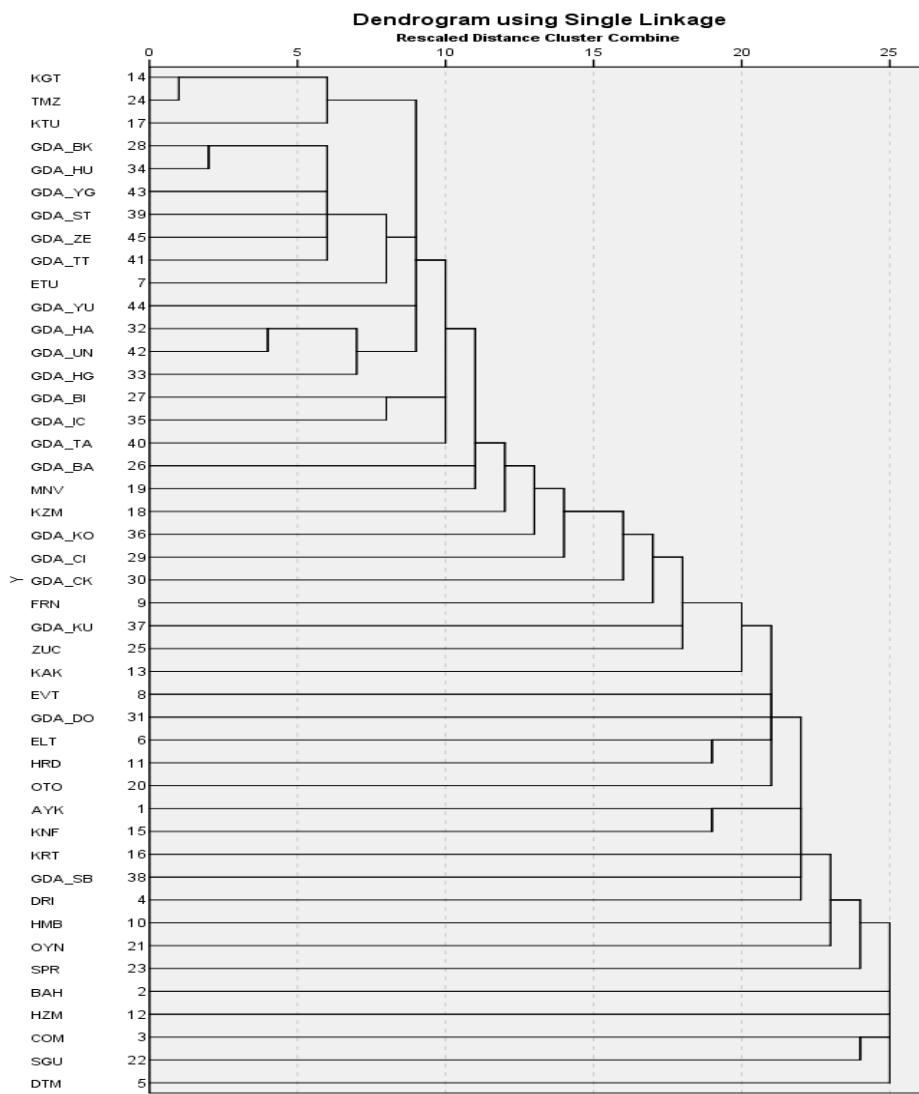


Figure 1: Dendrogram Displaying Relationships between Product Groups

The figure depicts the relationships between product classes and the clusters they form. The strong relationship between Paper and Cleaning products led to the initial combination of these two classes and thus formation of the first cluster. Personal Care Products were

integrated into this cluster later. It might be suggested that the strength of the relationship within the cluster declines as the linkage point shifts to the right.

Conclusion

The intermediaries in the marketing channel are responsible for transferring or delivering the goods the consumers want to buy based on their needs and demands. Intermediaries act as a bridge between manufacturers and consumers and they, meanwhile, attempt to achieve their own goals in accordance with their modern business sense. Retailers are considered a channel that is responsible for selling goods or services to the consumers who buy from intermediaries. Retailing is a set of business activities in relation to marketing goods and services, without any commercial purpose, directly to the end-consumers to meet their needs (Tek, 1999). Mucuk (1994) defines retailing as a set of business activities associated with marketing goods or services directly to the end-users or consumers.

The results of this study might be used by retailers in offering various promotional campaigns. The product categories and classes used by an enterprise in its category management might be used more efficiently by rearranging them based on the clusters generated through cluster analyses. Also, the patterns discovered might be used to design convincing and guiding activities for indecisive customers. We recommend using the findings of this study for the placement of products on shelves and planograms. By adapting this study to the other stores of a retail company, regional differences could be detected and the future strategies might be developed in the light of this data. The software ERP used by the retail company was developed by the company itself. Necessary software-based modifications could be made in order to get the data from its own systems. This data should be used in activities such as providing leaflets and inserts that are used by the company to reach its customers. The success rate of these activities could be increased thanks to this data.

Certain limitations made it harder to get healthier results in the present study. Though the card infrastructure of the company seems solid, the data beyond the rate of utilization should also be analyzed.

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Determinants of Microenterprise Success in the Addis Ababa's Urban Informal Sector: A Multidimensional Analysis

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Abstract

To understand determinants of success in small businesses, about 286 microenterprise operators in Addis Ababa were interviewed two times within a period of 28 months. A quintile regression approach was used to analyze the effect of various determinants at various quintiles and was compared to the results of OLS regressions. The results of the analysis show that the effect of success determinants vary depending on the type of success indicator used. To explain employment growth firm location, sector/activity and social networks were found to be significant at many quintiles. The service sector and especially hotels and restaurants were found to perform better in terms of employment growth compared to construction and manufacturing sectors. Firms at the 80th and 90th percentile were found to possess higher network sizes, defined by the number of various business related associations. To explain the growth of profits, personality traits such as risk taking propensity, location of the enterprises, sector and the interaction effect of entrepreneurial orientation with social network size were found to be significant. The effect of entrepreneurial orientation on profit was an indirect one: through its effect on network size. However the effect of these variables vary at various quintiles with location and sector influencing firms less than the median regression and the indirect effect of entrepreneurial orientation through network size influencing high growth firms, above the 50th percentile leading to the policy implication that interventions should consider firm heterogeneity.

Keywords: success, small enterprises, quantile regression

Introduction

Subsequent studies on small enterprise success are largely fragmented. Many of the entrepreneurship studies are driven by psychological perspectives and are focused on understanding business success largely from the entrepreneur point of view (McClelland, 1965). This view emphasizes that psychological quality, which differs among individuals and cultures, may create a divergent preconditions for entrepreneurial drive and success. Other studies focus on supply and demand conditions as key determinants of success (Mead and Liedholm, 1998; McPherson, 1996). Some studies have emphasized on networks, both formal and informal, as an important factor especially for firm success in developing countries (Annen, 2001; Kristiansen, 2004). The social network advocates for example contend that informal social networks serve as important resources in developing countries where formal institutions are weak.

Therefore small business success studies have been sparsely explored. Understanding small business success however, requires analysis from various dimensions and perspectives since success is a complex process that comes as a result of a number of factors which cannot be easily described by a single perspective or dimension (Wiklund et al., 2007). This paper aims to investigate business success using a multidimensional model. Emphasis is given to three dimensions: the individual, the business and external factor with an emphasis on networks and enabling business environments. The next section reflects on the definition of success and a multidimensional approach. Section three focuses on data and the variables used for analysis. Section four emphasizes on estimation methods. Section five presents results of the analysis. Finally the last section concludes the study.

Literature Review

Personality traits

Key entrepreneurial behavior seems to lie in achievement motivation (McClelland, 1965). McClelland explains that a person endowed with a need to achieve always strives to do a better and quality job, determined to grow and succeed. Some empirical studies lend support to McClelland's motivation theory that entrepreneurs possess a better need for achievements than non-entrepreneurs. Shane et al. (2003) argues that Individuals with an internal locus of control are dubbed as entrepreneurs and a successful business person. If an individual has an internal locus of control, she/he not only dares to open a venture but also strives to grow as the person thinks that she can change the outside world. Thus according to Shane et al. (2003), success is positively related with internal locus of control.

Risk taking propensity is an important trait of the entrepreneur especially in Africa where entrepreneurs face uncertainties with regard to prices, demand, reliability of infrastructure and corruption (Bigsten and Söderbom, 2005). Empirical studies have shown a positive and significant relationship between risk taking propensity of an entrepreneur and business success (Casser, 2007).

Lumpkin and Dess, (1996) suggest that EO reflects how a firm operates rather than what it does. Wiklund et al., (2007) suggest that the indirect effects of resources, attitudes and environmental factors would be best explained through its influence on EO. These factors can either directly influence firm growth or can indirectly influence firm growth through EO. Thus the interaction effect of EO with these resources together with direct determinants would yield an integrated model of micro and small firm growth. This study hypothesizes that resources assumed to have an indirect effect on success through EO are human capital resource, explained here as managerial and technical training received, attitude of the entrepreneur represented by growth motivation, and size of network to reflect the interaction effect of social network on EO and thereby on business success. These variables are deemed to capture the indirect effects of resources and the business environment on business success (Wiklund et al., 2007).

Baum (1994) on his work on architectural woodworking industry in US has assessed determinants of firm growth from various dimensions such as general motives, specific skills and competencies of the entrepreneurs, situation specific motivation, vision and

strategies of the business. For Baum self-efficacy was the single most important predictor of firm growth among all other traits. Self-efficacy was measured by the self-efficacy of the entrepreneur to grow the company. Self-efficacy refers to the ability of the entrepreneur to coordinate, combine and organize skills, resources and its competencies to attain a certain level of achievement on a certain task (Bandura, 1997). Thus a positive association between success and self-efficacy was hypothesized.

It has been argued that younger entrepreneurs possess a higher growth ambition compared to older entrepreneurs and that growth ambition drives success (Welter, 2001). Welter, argues that younger entrepreneurs are energetic, determined and willing to test their abilities and hence possess greater growth goals compared to older entrepreneurs. Cortes et al. (1987), argue that although older entrepreneurs are likely to be more experienced than younger ones, they may also be less inclined to grow their firms. This leads to the hypothesis that age of the entrepreneur is negatively related to growth ambition and this influences success adversely.

Demographic factors

Mead and Liedholm (1998) argue that gender of the proprietor may influence business success in many ways. First, MSEs headed by women are largely run from home as they have to bear other household responsibilities. Secondly the authors argue that, women entrepreneurs are involved in narrow range of activities that yield less profit. In their analysis on selected five African countries, they found that female operators were less likely to survive compared to their male counterparts. Although some studies (e.g. welter, 2001) contend that male entrepreneurs possess better growth ambitions than female entrepreneurs, the effect of gender on small enterprise growth is still ambiguous as other studies counter argue that female entrepreneurs do not under perform male entrepreneurs (DuReitz and Henrekson, 2000). Schooling is another important personal background that influences small enterprise performance. Bates, (1990) found that schooling is positively and significantly related to firm longevity.

Firm attributes

The stochastic theory of firm growth was disproved by Jovanovic's (1982) "learning model", which contends that efficient firms grow over time and that these firms know about their true efficiency after they start businesses. The less efficient ones exit or stagnate. Thus firms update information about their businesses based on past growth. Jovanovic's learning model attests that some firm attributes have direct effects on growth. Size and age of a firm is the most explained factor in this regard. It has been attested that smaller and younger firms grow faster (Coad and Rao, 2008). The status of formality/informality is advocated to affect success through its impact on access to resources (Jaekle and Li, 2003). This is based on the argument that formal firms have access to resources that are vital for expansion. Inversely the hypothesis can be interpreted as informal firms are excluded from the necessary inputs because of failure to abide by the existing regulatory frameworks such paying taxes, registration and licensing. This would place informal firms under the lower growth league.

Methodology

Sample

Two surveys were conducted within a period of about 28 months and 286 microenterprises were interviewed two times out of the 1000 firms in the first round. An attrition bias test was conducted to test if there is some systematic relationship between those who dropped and those who continued operations and it was found to be a random exit. A multi-stage cluster sampling method was used to obtain a representative sample. Addis Ababa is divided in to ten sub-cities and 99 kebeles. Kebeles ($N = 99$) were taken as the first stage clusters of unequal size. The number of clusters was determined taking in to account the similarity between clusters. Each kebele was again clustered in to enumerator areas (EA) based on a map for this study. Twenty-five Kebeles (Close to 25%) of the 99 kebeles were randomly selected. Since recent enumerator areas were not accessible, enumerator area was developed for this study using a map obtained from Ethiopian Mapping Agency (EMA). In this approach roads are used as boundaries of enumerator areas to assess the preliminary survey to develop the sampling frame. Every other household in each enumerator area was asked and a sampling frame was developed by identifying a household where at least one member in the household is engaged as a microenterprise operator. The authors randomly selected 11 households per each enumerator area (EA) from the developed sampling frame. The authors traced the randomly selected operators at their establishments and conducted a personal interview to obtain a primary data. The 2008 sample survey was used as a frame of reference to trace back to same respondents after about two years in 2010.

Empirical Models

This section aims to describe the methodology used to test the hypothesis of the research. The study emphasizes on both direct and indirect determinants of success and tries to examine hypothesized determinants from three dimensions: the individual, the organization and the external environment. The general form of the model is:

$$\text{Success} = \alpha + \beta_1 \text{individual dimension} + \beta_2 \text{firm dimension} + \beta_3 \text{external factors} + \beta_4 \text{controls} + \varepsilon$$

However, the authors hypothesize not only a linear relationship but also some non-linear relationships between the dependent and explanatory variables. The regression model therefore should take account of this non-linearity as well. As such the model would take the following specific form:

$$\text{Success} = a_0 + a_1 (\text{size2008}) + a_2 (\text{size2008})^2 + a_3 (\text{firm age}) + a_4 (\text{firm age})^2 + a_5 (\text{size2008} * \text{firm age}) + \sum b (\text{individual dimension}) + \sum c (\text{firm dimension}) + \sum d (\text{external factors}) + \sum e (\text{controls}) + \varepsilon$$

Where the dependent variable success, correspond to average annual growth rate of employment and profit over the period of 28 months. Initial size of a firm is represented by size at 2008; firm age is measured as of the last data period at 2010. The interaction effect between size and age and the non-linear relationship is represented by multiplicative

effect and the squared effect respectively. The coefficients $a_0 - a_5$ represent estimated values of the firm size –age effect on performance. In the same token coefficients b, c, d and e represent the estimated values for the effect of various dimensions and control variables. Control variables are such factors as start-up capital, sector, location dummies and ethnicity.

Estimation methods in a heterogeneous population: Quantile Regression approach

In cases where there exist diverse and heterogeneous groups of operators, application of linear regression may lead to biased estimates (Koenker and Hallock, 2001). According to Koenker and Hallock, ordinary least squares (OLS) does regressions to the mean and hence is unable to take account of the heterogeneity that exists in a given population. The least squares estimator measures the effect of explanatory variables at the average firm growth, assuming a well shaped normal curve.

To remedy the problem of regression to the mean in a heterogeneous population, Koenker and Hallock (2001), provide a quantile regression approach. According to the authors, quantile regression models the relation between a set of predictable variables and specific quantiles (percentiles) of a response variable. It specifies changes in the quantiles of the response; not average changes of the response variable. Thus according to the authors quintile regression assumes a skewed distribution and allows for analysis at these different quantiles.

To illustrate the situation, following Goedhuys and Sleuwenen (2009), if g represents the dependent variable, firm growth (success indicator), and the explanatory variables including the constant term are represented by a vector X , the OLS estimator results from minimizing the sum of squared residuals i.e. from minimizing:

$$\sum_{i=1}^N (g_i - x_i b)^2$$

Where, i stand for the observations 1 to N, b is the vector of estimated coefficients. Ordinary least squares thus estimates the mean effect of explanatory variables x_i on success.

Instead of minimizing the sum of squared residuals, quantile regression coefficients results from minimizing the following criterion function.

$$\sum_{i=1}^N \rho(g_i - x_i b) / I(g_i \leq x_i b) + \sum_{i=1}^N (1 - \rho)(g_i - x_i b) / I(g_i > x_i b)$$

Where, $I(\cdot)$ is an indicator function taking the value of 1 if the condition in brackets is met and zero otherwise i.e., $I(g_i \leq x_i b) = 1$ if $g_i \leq x_i b$ and $I(g_i \leq x_i b) = 0$ if $g_i > x_i b$

The left term represents a weighted sum of all negative residuals i.e. the stagnant or survivalist microenterprises, while the right term is the weighted sum of all positive residuals i.e. the growth-oriented firms.

ρ is a weighting factor ranging from 0 to 1. If $\rho = 0.5$ both terms are equally weighted and minimizing the criterion function leads to the 50 percent quantile.

If $\rho = 0.1$, the negative residuals in the left term have a lower weight than the positive residuals in the right term of the expression. Minimizing the criterion function will then lead to estimated coefficients whereby 90 percent of the residuals are negative; by definition the 90 percent quantile or upper decile of growth-oriented firms. Survivalist or stagnating microenterprises can be examined setting $\rho = 0.90$. The positive residuals in the right term have lower weight than the negative residuals. Minimizing the criterion function will lead to estimated coefficients where 90 percent of the residuals are positive, i.e., the distribution is evaluated at the 10 per cent quantile of first decile or stagnant/survivalist firms. Quantile regressions are computed using STATA software package.

This paper relies on employment growth and profit growth as indicators of success. Relative growth measured in percentage terms is used as an independent variable for the purpose of this study. Annual average growth rate is computed based on the initial and last data period. This means that growth is computed based on the following formula. $G = [(size\ at_{2010} - size\ at_{2008})/size\ at_{2008}]/2.33$, where, G = average annual growth rate for both success indicators, Size at₂₀₁₀ Represents values for profit and employment size on 2010 (last data period), Size at₂₀₀₈ Represents values for profit and employment size on 2008 (initial data period), 2.33 is the time (in year) elapsed between two data periods.

Findings

Table 5.1 to 5.3 below show a summary of significant variables using the methodology discussed above. The authors have generally classified regression results into four categories. The first one is regression to the mean. This is based on the OLS results. The quantile regression result is grouped into three categories: the lower growth league (10th, 20th, 30th and 40th), the median (50th percentile) and the upper growth category (60th, 70th, 80th and 90th). Variables that are significant at two and more than two growth category (based on the definition given here) are assumed to be more important and are retained for further discussion. Accordingly table 5.3 summarizes these variables for both employment growth and profit growth indicators. It has been found from the regression analysis that a number of entrepreneur related, firm specific and external factors appeared to influence success across both indicators. Generally speaking nine factors were found to be most important determinants of success. These are: Ethnicity, Gender, migration status, Location, membership in IKUB, sector, Experience, interaction effects of entrepreneurial orientation with social network size and also with technical and managerial training received. From among these nine factors, seven factors were found to influence both indicators. These seven factors are Ethnicity, Gender, location, and interaction effect of entrepreneurial orientation with social network size, Ikub, sector and experience. Considering location to be a control variable for the regression analysis, this study concludes that an entrepreneur character related to ethnicity and gender and an external factor especially Ikub dummy and social networking coupled with entrepreneurial orientation are more important for microenterprise success in Addis Ababa.

Table 4.1 Summary of Employment Regression

Category	Significant variables and growth category				
	Average firm (OLS)	Lower growth firms (<50 th percentile)	Median growth firms	High growth firms (> 50 th percentile)	Sign of the variable
Personality Traits	Internal locus of control	Internal Locus of control			+
		Self efficacy			-
Competence					
		Technical and managerial training			+
Demographic character					
	Migration Status	Migration status	Migration status		Migrant (+)
Firm attributes	Ethnicity	Ethnicity	Ethnicity	Ethnicity	Gurage (+) Tigre (+)
		Age of the operator	Age of the operator		-
	Experience	Experience	Experience	Experienc e	+
	Gender	Gender	Gender	Gender	Male (+)
		Formal Education			+
		Firm size			-
		Firm age			-
		Firms size squared			+
		Firm age squared	Firm age squared		-
		Firm size* Firm age			+
		Entrepreneurial Orientation(EO)	Entrepreneu rial Orientation		-
	Location	Location	Location	Location	Home with space (+)
	Sector Retail trade (+) Service(+)	Sector Manufacturing (+)	Sector Manufactur ing(+)		+/-
External/Environ mental		Network size			+
		subcontracting	Subcontract ing		+
		Linkage	Linkage		-
	IQUB	IQUB	IQUB	IQUB	+
		Business License	Business License		+
Indirect effect	EO*SNW	EO*SNW	EO*SNW	EO*SNW	+

Table 4.2 Summary of Profit Regression

Category	Significant variables and growth category				
	Average firm (OLS)	Lower growth firms (< 50 th percentile)	Median growth firms	High growth firms (>50 th percentile)	Sign of the variable
Personality Traits					
		Internal Locus of control		Internal Locus of control	-
Demographic character					
	Migration status		Migration status		Migrant (+)
	Ethnicity	Ethnicity	Ethnicity	Ethnicity	Gurage (+)
		Age of the operator			-
	Experience	Experience	Experience	Experience	+
	Gender	Gender	Gender		Male (+)
Firm attributes					
		Firm age	Firm age		-
	Location	Location	Location	Location	Home with space (+)
	Sector	sector	sector		Service (+)
External/Environmental					
		subcontracting	Subcontracting		+
		IQUB	IQUB	IQUB	+
Indirect effect		EO*SNW	EO*SNW	EO*SNW	+
	EO*TCMT	EO* TCMT	EO* TCMT	EO* TCMT	+
			EO*Motive		+

Discussions and Conclusions

This study has relied on the application of an integrated approach and focus on various growth distributions including but not limited to the mean effect of growth distributions. Liedholm (2002) analyzed the performance of micro and small enterprises for six African countries using only OLS regression but he did not look into various growth distributions that these firms exhibit. The analysis conducted by McPherson (1996) is also limited to the average effect of various factors on employment growth for selected Sub-Saharan African firms. The analysis conducted by Bigsten and Gebreyesus (2007) was much more focused on testing the impact of firm age and firm size on employment growth. Goedhuys and Sleuwagen (2009) used quantile regression approach to account for the heterogeneity in

growth distributions, but they were focused largely on the impact of innovation, transportation and technology and none of the personality traits were mentioned let alone the interaction effect of these traits on resources. Baum et al. (2001) have emphasized on the importance of multidimensional analysis to understand venture growth but the analysis across each dimension was based on testing the effect of determinants on mean employment growth. Moreover in most of these studies only a single indicator of success is used and that single indicator is employment growth.

Evidence here shows that the impact of personality traits on micro and small enterprise success in Ethiopia is generally low; exception is internal locus of control. The findings from both regressions are in general against expectations, leading to a conclusion that external factors play more important role on business success in Ethiopia. It seems that business confidence is embedded largely within the social network thereby eroding the impact of personality traits as they stand alone. As Nichter and Goldmark, (2009) noted studies on personality traits are very rare for small firms in developing countries and hence there is a need for further investigation on this area.

There is an evidence for gender gap in microenterprise success. Gender was significant for average, lower growth and median firms for both employment and profit growth regression. Female operators were at a success disadvantage owing to a number of household responsibilities. In most cases female operators are married or widowed and with children making it difficult to search for high income fetching activities.

There is also evidence in the study that schooling has a positive but weak effect on success. Only in the employment growth regression and for lower growth firms that schooling has been found significant. In fact there are clear evidences in Addis Ababa that most of the successful operators are either elementary school graduates or high school dropouts. It could be that educated people show fewer tendencies to become entrepreneurs, although recently the increased gross enrolment is also felt in the informal sector. It could also imply that the quality of education itself is weak since education in Ethiopia is more of theory focused all leading to insignificant impact of literacy on success.

The study has found out that location is an important variable for success. For both indicators of success location was found to be significant at four categories (for average, median, lower growth and higher growth firms). Businesses with enough space operating at home are found to be more successful than businesses in other locations. This finding lends support to studies such as by Liedholm (2002) that advocate the importance of working premises for microenterprise success.

Evidence from the regression above shows that the service sector followed by retail trade sector is doing better in employment creation and profit compared to all other sectors. This reflects the importance of the demand side of the economy. The consumer market basket is largely tilted towards food items than other investments and this is typical characteristics of developing countries. A higher consumption propensity means that the service sector and specially Hotels and restaurants remain profitable. This sector is also labor intensive thereby contributing to higher employment growth.

Manufacturing sector is at a success disadvantage compared to all other sectors except construction. All other sectors are positively and significantly performing better than manufacturing. It could be the case that large manufacturing firms are competing with these small firms than subcontracting or supporting these small businesses. Shoe-sol makers in merkato were driven out of market because larger firms sued these small operators claiming that “small businesses posed an unfair competition because they do not pay tax and they are illegal”. Failure in small manufacturing sector jeopardizes Growth and transformation plan (GTP) that the country is poised to. But it does not seem at this spot that government driven support strategies are working nor is the market system favoring growth of small and micro manufacturing sector. The trend seems that nothing stops the leading role of the service sector putting a sever challenge on GTP. The construction sector seems to be highly vulnerable to international prices as most inputs are importable. It was found to perform poorly largely due to a sky rocketing prices of imported cement and other inputs.

A social network variable represented by IKUB dummy has strongly and positively influenced success for both indicators. May be operators are using IKUB not only for rotating savings but also for exchanging information and new opportunities which could help to boost up success. It could also be that membership in IKUB motivates operators to work hard as they have to pay their share every week.

From the analysis it appears that the systematic relationship between age and growth and size and growth holds although the statistical significance is not so strong. In some regressions a positive coefficient for size was observed, appearing against the economies of scale arguments. There could be some explanations for this. First, this data is based only on microenterprise firms in the informal sector (with a small deviation from the mean size). Since Large and medium enterprises are excluded from the analysis, the size-growth regression could appear with a biased estimate. An inclusion of larger or medium sized firms would give a clear indication of what firms grow most with respect to size.

The study has found out that entrepreneurial orientation has an impact on success indirectly. As it stands alone, the coefficient of entrepreneurial orientation (EO) was either negative or insignificant. But when EO is interacted with resources in most cases it is significant and positive determinant of success. The interaction of EO with social network size is most pressing. The quantile regression approach revealed that in most cases high growth firms are characterized by firms with a better score for EO coupled with a better network size. Thus network size alone does not lead to success unless firms possess good strategic decision makings. From this it goes on that policy makers should work hard on instituting or channeling these informal social networks to the formal system in such a way that interventions can be more effective and small firms benefit from interventions.

Both regressions have shown that migration status is strongly associated with microenterprise success. It has been found out that migrants performed better in both indicators of success. Although initially migrants run a *forced entrepreneurship*, whereby they start operations for survival, as there are no other alternatives, through time the motives and performances change. Unlike natives, who have supports anyway from family and relatives, for migrants their business is the only way-out. Business failure for natives

could mean search for other opportunities or schooling with little worry for daily expenses. But business failure for migrants means a disaster. Failure for migrants could lead to begging or looting as they have no family supports. This has strengthened some ties within the migrants themselves and placed rotating savings such as IKUB in the highest importance for success. So the fact that firms start operations because *there are no other alternatives* does not necessarily lead to failure. Rather it could serve as a motivating factor making operators to come together, share information, device own financing mechanisms such as IKUB and ultimately leading to success. Probably this could serve as a way out of poverty for rural migrants who are largely in cities because of the *push factors*. This is true as almost all of the successful enterprises in Addis Ababa are owned by migrants who initially started businesses as a means of survival. In rapidly urbanizing countries such as Ethiopia this issue deserves much greater attention. Policy makers need to investigate if benefits of growth can be redistributed from cities to rural areas through the urban informal sector such as through micro and small enterprise development. Research on this area is generally limited and there is a need for further investigation.

Ethnicity was also found to be a very important factor for success in Addis Ababa. The *Gurage* ethnic group showed a relatively better chance of succeeding in business compared to other ethnic groups. The possible explanation is that the *Gurages* could be better in utilizing social networks which also have affected their business success positively. This means that their ethnic based bondages are probably geared towards success. This is true when for example larger whole sellers from merkato provide small retailers of the same ethnic group (*Gurage*) capital or other inputs in kind to retail products. There is no legal contract nor any interest payment for the money or equipment borrowed. The smaller business is trusted by larger ones. Every small business that received loan either in money or in kind will pay back at ease. In as long as one is credible in the ethnic group, there is no worry to get money to start a business or to get guarantee in times of bankruptcy. This might have kept businesses owned by *Gurages* at a success advantage compared to other ethnic groups. This finding is in line with studies that advocate ethnic minorities and success. For example, Robb and Fairlie, (2007) observed that Asian minorities performed better even compared to white Americans of similar business category. Although the authors credit better human capital and higher start-up capital for success the role of networking should not be belittled. Iyer and Shapiro (1999) have clearly explained how Asian ethnic minorities bridge international marketing and globalization through strong connections. On his study of small scale wood business in Tanzania, Kristiansen (2004) found that people belonging to Asian subculture possess a better striving for business, better group cohesion and higher level of education leading to the success of this group. The author warns that unless a level playing field is made for all citizens such an issue would lead to conflict and unrest.

The authors argue that government should neutralize the impact of bondages based on ethnicity as this may lead to exclusion and even conflict. Government effort to neutralize such exclusion through for example discussions with local leaders would create a level playing field for all operators of various ethnic groups.

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The Usage of Intelligent Automat in Collecting the Packing Wastes through the Separation Method from Their Source: A Model Proposition for Turkey

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Abstract

The fact of not collecting the recyclable packing wastes in the aimed levels, has become a situation to focus on today both because of its damages on the economy of the country and the environmental pollution. The developed countries, have inclined towards the recycling the packing wastes sources (pet, glass, can) by means of the reverse vending machines, and have obtained successful results. Yet in Turkey there are still the primitive methods are applied, and the attempts to convert into modern methods are unsuccessful. No modern recycling model has been encountered which is proposed for Turkey in the literature. Yet, the scrap values of the wastes are currently not satisfactory for the consumers. Thus, the planned modern projects haven't realized. This study is non but the modeling an optimum favorable benefiting innovation for Turkey, by examining the reverse logistics processes, and packing wastes separation in the source which are applied in the developed countries.

Keywords: separation in the source, recycling, packing wastes, reverse vending machine, reverse logistics

Introduction

Whilst developed countries have used applications such as composting, recycling, re-use and technologies producing energy from waste for waste management, developing countries have still planned how to follow the best waste disposal method (Bassam, 2006). Regain refers to the recycling of packaging waste to pass through some processes by physical, chemical and biological methods or to obtain energy from them by burning. Recycling is to reprocess packaging wastes for the original purpose or other purposes including organic recycling but except energy recovery in the production process (AAKY, 2007). Nowadays, collection of solid waste is mainly carried out in the context of the projects of separation at source or garbage containers. In this case, but, public awareness and the importance given to recycling by them become very low. However, it was found with the presence of Reverse Vending Machine (RVM) that consumers have showed more sensitivity to packaging wastes.

Reverse vending machines (RVMs) are fully automated recycling machines using advanced technology to determine, sort, collect and recycle the used beverage containers (Vending International, 2008). These machines have a system which gives users a barcode

printout showing the refundable fee determined by the machine administrator in return for accepting packaging wastes to the warehouse in.

The aim of this study is to offer a model proposal which may be developed a different perspective on the applicability of the RVMs which are used for the collection of packaging wastes in developed countries and the system is applied through these machines. Although many materials are in the issue of packaging waste, the scope of the study is only about pet bottles and cans.

The Application Areas of RVM in the World

Machines used in Australia are able to keep the 2000 containers within them. They can give users money, a little gift or donation checks (ECOS, 2014). Germany is the country showing the most interest to RVM system in the world. DPG (Deutsche Pfandsystem GmbH) is an institution established by the German government and it manages the process with Pfandsystem name (which means a sort of deposit system). DPG establishes the framework of Pfandsystem. Stakeholders who want to work with the system are required to comply with this framework. There is no obligation to use RVM in the system but there is a deposit system. For instance, even if an "A" firm does not sell "X"-branded product having Pfand, "A" firm has to accept it when a customer brought it. In other words, even firms work independently from each other; they have to take back the returnable packaging waste of another company. However, if a shop owner has a venue that does not exceed the size of 200m², except their products, it does not have to take the foreign returnable packaging wastes. Nowadays refundable fee is set at 0.25 Euro cents. The beverages which are under 250 ml and over 3 liter do not include Pfand (DPG, 2015). Germany does not accept packaging waste from the outside of the country. Although reading barcodes is not new, the last codes designated by DPG Pfandsystem have contained safety signs having necessary parameters on each bottle or can. These security codes indicate whether the packaging waste was produced for the German market and they verify whether to refund or not (VSD, 2007). Moreover, Germany has emerged as a world leader in the mandatory deposit system. Investment cost of the system has reached a very high figure as a result of Germany's applications that have carried out with RVM and manual systems since 2003. In this respect, the system can be seen as useless in terms of effectiveness. However, the opposite situation has occurred with a seamless integration in Sweden. The success of the system has revealed different results in different countries due to the factors such as citizens' consumption habits, interest in innovation and trends about environment (AK, 2009).

While RVMs were limited in the issues of reading barcode in the past, they have worked with a system based on image recognition nowadays. These machines that particularly accept plastic bottles and cans, are now designed to automatically recognize, collect and pass through the recycling system all these packaging wastes including the glasses of McDonald's, Burger King and KFC. The machine compiles the statistical data of all used beverage containers automatically. This information can be provided the information users even over the internet (Vending International, 2008).



Figure 1: RVM and Its Usage

These machines are especially popular in the countries with mandatory recycling laws and at the same time, these laws are also encouraged consumers for recycling. These machines have been used in IKEA's Wembley, Wednesbury, Coventry, Milton Keynes, Gateshead, Glasgow and Edinburgh stores and a great regain success was obtained in these stores. It is convenient in terms of cheap rent, less bad image, spaciousness, cleanliness and health. Furthermore, according to a study conducted in the UK; 9 of every 10 people said that "if recycling/regain would be easier, I would recycle more" (Vending International, 2014).

There are a limited number of serial RVM manufacturers in the world for packaging waste. "Tomra" company is one of the machine manufacturers which refund instead of barcode printout (AMM, 2001). In addition, Tomra is the largest giants of the total market with Envipco and Wincor / Nixdorf making mass production of these devices.

At the end of 2013, there are approximately 90,000 units installed RVM all over the world and Tomra has produced approximately 70,000 of them. The countries using the most of these 70,000 RVMs are as follows in accordance with the order: Germany, North America, the Nordic countries, other European countries, South America and Japan. According to Tomra data, the following advantages are obtained via RVMs in 2013 (Tomra, 2014):

- 22 Millions of tons of CO₂ from being released into the atmosphere in 2013.
- 30 bn used beverage containers are captured every year.
- Daily reduction of 20,000 waste pickups.
- 15 million tons of potatoes per year with a 1% yield improvement.
- 715,000 tons of metal are recovered.

In particular, PET waste is an issue to be dealt with sensitively due to given damage to the environment. The distribution of the PET recycling rate by country is as follows (Tayyar & Ustun, 2010):

- China: 70-85%
- The EU: 35%
- Japan: 64%
- Other Countries: 20-40%.

European Union countries do their activities on packaging waste in accordance with the provisions of the Directive No. 94/62/EC. In this directive, if re-use, recycling, regain cannot be benefited in any way; obtaining energy by burning is concerned (Akçay Han, 2008).

The European Union's environmental policy draws attention to a more conscious use of natural resources based on the protection and looking after of environment and improving the environmental quality and used in a way not to harm the ecological balance of natural resources (Dabak, 2009).

Applications in Turkey

An "Action Plan" was prepared under National Recycling Strategy Document in order to impart an effective structure to the recycling system in the country with the participation of relevant representatives of public, private sector and NGOs. The action plan shows that the actions carried out by which institutions, in cooperation with which institutions and in how much time and it defines the framework for action (UGDSB, 2012).

Even though there are many concepts and stakeholder in this framework, the direct relevant parties with the work are described below (AAKY, 2007):

Packaging Waste Management: It includes the following processes in a particular system: the separate collection of packaging waste at source, handling of, separation of, reuse of, recycling of, regain of, disposal of packaging waste and etc.

Packaging Commission: It is a commission consisting of representatives of interested parties under the chairmanship of the Ministry representative to evaluate works and practices conducted in accordance with the regulation.

Separate Collection at Source: It refers to the particular places established to collect specific waste separate from other waste in accordance with the prepared management plan.

Collection Separation Plant: Facilities that are collected and classified packaging waste and separated them according to the types except the storage made in factory, outlet and other similar units.

Accredited Institutions: Institutions that are authorized by the Ministry and nonprofit legal entities created to fulfill the obligations specified in the regulations.

Street Collectors: People who earn money to live from collecting and selling the valuable waste at dumpster or on the streets.

Even though the separation of waste at source and bringing in waste that may be regained for economy is the basis of the waste management policy, separation at source and recycling activities in Turkey is very low. Recycling is largely carried out in very unhealthy conditions with street-collecting system; production and distribution companies that recycling is obligatory for them also fulfill their obligations (quotas) mostly by financing the street-collecting system instead of undertaking this activity directly (Katçioğlu and Şengül, 2010):

The percentages of the collection of packaging waste by the company launched them in Turkey is shown in Table 1.

Table 1: Annual Regain Target by Material (%)

Years	Pet	Glass	Can
2014	44	44	44
2015	48	48	48
2016	52	52	52
2017	54	54	54
2018	56	56	56
2019	58	58	58
2020	60	60	60

Source: AAKY, 2007

Unfortunately, it has not been carried out as planned which is to access to these rates in Turkey. The companies that launch the waste source have showed waste which is collected by street collector or licensed collection centers in their collection obligations. Moreover, there seems not much difference between containers for separation at source projects and household garbage containers.



Source: A street in Karaman city, Turkey.

Figure 2: The Containers for Separation at Source and Domestic Garbage Collection

Unfortunately, garbage and packaging waste have been thrown away together to the garbage containers. Street collectors collect packaging waste from places having lack of

hygienic conditions. Namely, they are separated packaging waste in direct contact with the garbage without taking any precautions. Also, the recycled materials are quite dirty and therefore it is necessary to eliminate the contaminants on them before putting the recycle process. This requires additional labor and decontamination costs. Street collectors are direct exposed to all types of wastes such as medical waste, dangerous and hazardous waste and as a result of these; they are suffered from various diseases (Küçük, 2010).

Some of the main reasons of failure in spreading the projects of separation at source across Turkey may be seen as following; the resistance of municipalities to separation at source, inability to record all companies launched wastes, the disagreement on separation at source between the companies collect the packaging waste and separation plant operators. Another reason is the low capacity of the licensed collection-separation plants. The lack of administrative, financial and technical capacity of existing business to collect and separate packaging waste alone in a province is also important (AYEP, 2008).

165 thousand tons of PET bottles are produced annually in Turkey. However, only 40 thousand tons of them can be recycled. The monetary value of 25 thousand tons pet bottle got mixed to the nature every year is \$70 million and Turkey pays \$ 1.7 billion to synthetic fibers in a year. \$ 1 billion of this has gone to the import of polyester fiber which is recycled and hence if sufficient importance is given to the recycling issue, \$ 1 billion will be able to remain in Turkey (Tayyar & Üstün, 2010).

The collection of packaging waste at source is an organization that requires fairly high cost. The accumulation of packaging waste at source, taking the collected packaging waste from the door with collection vehicles and at the final stage, transfer of them to the facility is a cycle that requires costs. Furthermore, all of the packaging waste collected separately at source is subjected to manual separation process at plant because of the accumulation in the same bag. This means cost to the business facility (Küçük, 2010).

The above-mentioned processes and applications represent the current system, and the projects for the use of RVM have also attempted to be implemented. In 2012, it was tried to be observed consumers' interest to RVMs through mobile RVMs with a project that aimed to put into practice by Coca-Cola Turkey. However, the project could not create the expected perception; in other words, the project has failed because consumers have not understood what this device was. In 2013, Environment and Urban Planning Minister Erdogan Bayraktar used the name of "money box" for RVM. He claimed that they would place these "money box" to the shopping malls where in the densely populated regions and stated that consumers could get a refund fee between 25-50 Lira cents and 1 Lira in exchange for waste bottles but there have not seen any step in the physical sense by the year 2015 (Milliyet, 2013). Istanbul Metropolitan Municipality has engaged in pilot projects in its region; it has given some gifts such as bus ticket, bread and etc instead of money in exchange for waste and hence the system has not been widely favored. Samsun Metropolitan Municipality has provided the supply of feed and water for street animals as a result of the disposal of PET bottles to the relevant containers but mass participation has not been achieved. Karaman Municipality has been placed a RVM to the city center but the application has continued in an unsuccessful way.



Figure 3: Wrong Perception and Use of RVM

The main problem of the institutions here is the inability to provide cash return in exchange for waste accepted by RVM. The second major problem is that users could not understand the system because of inability in creating social perception towards RVMs. These two major problems caused obstacles in front of the implementation of the RVM projects produced in Turkey or failure for the implemented ones.

The scrap value of 500 ml water pet bottle is 0,007 Turkish Lira (3 TL ~ 1 USD). When a thousand of them is collected, it can be paid only 7 TL and this is definitely not attractive to consumers. In addition, the payment of scrap value as 0,25 TL with state subsidies will constitute a serious handicap when it is considered that the wholesale price of 500 ml of a bottled water is 0,15 TL.

Although it has not been reached a study on the use of RVM to Turkey, it has been reached a number of studies related to packaging waste management. For the regain of waste, Köse et al, (2015) have proposed four types of collection model for packaging waste management systems and they compared the cost between these models. However, in these models, there is not any system using RVM: only rudimentary collection models are discussed.

A New Model for Turkey

Doing project tests with primitive RVMs without considering the factor of social perception in Turkey and the failure of these projects have made it imperative to focus on two points.

1. *Social Perception:* This can be defined as drawing attention with outdoor advertising and increasing society's interest and awareness to the system by introducing the method to be applied. Indeed, it is necessary to be known clearly by the community how to use the RVMs and what to earn in return of waste before use. It should be announced with assertive slogans that people can gain cash in exchange for the collection of packaging waste. In addition, it should be announced in these advertisements that RVMs accept only recyclable packaging waste not garbage by emphasizing that household waste is excluded. Otherwise, damages can be seen in both at the system and RVMs due to misusage of RVMs.

2. *Implementation:* Supermarkets provide financial income monthly/yearly with the name of shelf price, share, cooler share and etc. from those launches to the market. Moreover they obtain income from manufacturer for their products included in the weekly discount newsletter. The basis of the proposed model is focused on this point. Testing the model with the contribution of private sector, instead of direct state subsidies, will be more useful. Because, in interviews conducted with supermarket officials, it is accepted to be made the shopping discount of 0.25 TL to the consumer rather than scrap value of 0,007 TL per waste due to providing a competitive advantage and the difference will be financed from those launches them through the supermarkets. For this reason, it is planned to finance the funding costs which is about 30.000 TL of RVM from those who launched, by giving place their ads in the dressing RVM. The device must be placed in supermarkets not the city square and examined by measuring levels and the reaction to the system at least 3 month period. After the testing process, the protection of the law is recommended by examining the obtained findings in the state. The proposal as a starting model to be enacted by the state: the retail price which is 0,50 TL today of 500 ml should be determined as 0.75 TL and when packaging waste is thrown into RVM, 0,25 TL refund should be made as shopping discounts and this system should be applied for all packaged products.

Conclusions

When Germany provided RVM applications for the first time, devices were not providing professional services. This situation has been exploited by some consumers regarding unjust enrichment and fraud. In the following period, the system has been damaged with different products. Germany that developed new methods undaunted in the face of problems has revealed a waste management system which is accepted by everyone and protected by law via producing its own know-how.

It has conducted experiments with primitive RVM in Turkey without considering the social perception factor and this situation has led to failure of projects. An enormous RVM system can be established through the pilot implementation of the proposed model in a pilot province: after pilot implementation if there is, the elimination of deficiencies; if the success achieves, disseminating of its results across the country is important.

For the continuation of this work, pilot implementations and act with real data are recommended.

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Construction of Composite Index to Assess Monetary Conditions and Stance of Multiple Indicators Approach Based Monetary Policy

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Abstract

In this research work, a new monetary conditions index (MCI) has been constructed comprising of multiple indicators used for monetary policy by regulator (RBI) capturing credit market, asset price and bank lending. The variables are identified using diagnostic test and then factors are defined using principal component analysis. MCI has been constructed using these three factors i.e. rate factor, activity factor and investment factor. This index is validated using Granger- causality tests with a number of indicators.

Keywords: monetary conditions index (MCI), principal component analysis (PCA), credit market, asset price, bank lending

Does Innovation enhance the TFP growth? New Evidence from Indian Manufacturing

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Abstract

We explore the relationship between innovation and firm level productivity growth by taking a closer look at different types of innovations in case of Indian manufacturing. We collect primary data on innovations from 190 Indian manufacturing firms clustered in Hyderabad and Bengaluru city. First, we estimate the TFP growth using Leveishon-Petrin (LP) approach. In the second stage, the empirical results based on Random Effect Model (REM) find that the firms who are doing innovation are productive than non-innovative firms. Finally we examine the effects of various types of innovation on TFP growth and conclude that process innovation significantly contribute to TFP growth as compared to product and marketing innovations.

Keywords: innovation, TFP growth, firm performance.

Implementation of Lean Manufacturing Philosophy and Techniques in a Textile Business

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Abstract

The mass production system is devoid of flexibility, depends on a solid hierarchy and ‘massiveness’ involves waste. However, lean manufacturing is a system that consumes at least half of everything compared to mass production. That is, when compared to mass production, a lean factory requires half of the labor force, half of the producing space, half of the equipment investment and half of the engineering time spent to develop new products. For this reason, the present study is of particular importance in terms of knowing what lean manufacturing philosophy is and examining and knowing the companies that have adopted lean manufacturing in detail. This study, which includes a case analysis, presents the philosophy and techniques of lean manufacturing and the gains that companies will have when they implement these philosophy and techniques in their processes using real data. In this way, the study provides an option for having a competitive advantage to companies operating with limited resources in today's competitive conditions. This study primarily discusses lean manufacturing with an academic perspective using literature study as a method. In the implementation section of the study, a textile company which adapted lean manufacturing to its processes is presented through case analysis. Face-to-face interviews were conducted with the department manager, industrial engineer and lean manufacturing supervisors of the company and the lean manufacturing implementations performed by the company were closely observed. SMED and other techniques implemented at the factory of this textile business were viewed live during the implementation and the adaptation of the company to lean manufacturing was observed. All of the data obtained was collected into a case study.

Keywords: lean manufacturing, lean manufacturing techniques, case analysis.

Introduction

Lean Manufacturing System is a management philosophy and method that has proven its success around the world (Ohno, 2010). Together with the necessities of the changing times, there have also been changes in the desires and demands of consumers. Businesses have been obliged to try various methods in order to be able to comply with these changing consumer demands and the conditions of global competition that have become difficult day by day. Customer oriented businesses that can foresee the demands of their customers and

determine their starting point based on these demands are more successful compared to old style businesses that operate with the philosophy that a product can be sold anyway.

Textile and garment industry has a significant place in the progress of developing countries because of its labor intensive production structure, the employment opportunities it provides, the added value created in the production process and export opportunities. The industrialization of a country and the creation of an industrial society have generally been achieved through textile and garment industry.

It is considered that the lean production system, which first emerged in the automotive industry in the world, will find an application area in textile, which is also a capital-intensive sector. Owing to the automation and modernization practices implemented in textile businesses, yarn and fabric production processes are simplified, labor costs can be decreased and the quality defects caused by labor errors can be prevented. Improvements made in the business at the same time help to save space, shorten the process and enable the removal of processes that create no value for the customer by eliminating certain production steps, and thus can also decrease the cost of production.

Lean Manufacturing Philosophy

In the first part of our study entitled Lean Manufacturing Philosophy, the birth of the lean manufacturing system, its definition, principles and characteristics, wastes in lean manufacturing and the elements of lean manufacturing will be mentioned.

The Birth of the Lean Manufacturing System

In the light of the information gathered by Eiji Toyoda in 1950 during his visit to the US to know and examine Ford automotive business, it was decided that the mass production system that Ford had pioneered since the beginning of the century was not at all a suitable system for Japan and this decision paved the way for laying the foundations of a totally new understanding of production and management. That is, in light of the information mentioned above, the foundations of the management and production system which is today named as “lean manufacturing” was laid in the 1950s in Japan Toyota Company under the leadership of engineer Eiji Toyoda, a member of Toyoda family, and his colleague engineer Taiichi Ohno (Abdullah, 2003).

Definition of Lean Manufacturing

The essence of the production method, which was first adopted by Toyota and which has spread to every country and all lines of businesses, is simplicity. Lean Manufacturing, in its simplest form, is decreasing the time that passes from the production, distribution and delivery of the product to the customer and eliminating the waste from the value (Vincent and Alec, 2002).

According to Voss (1995), various names have been given to the approach of Japanese companies regarding production management. The current name used in Japan is “Toyota Production System”. The term “Just-in-time Manufacturing” is widely used in the west. At the same time, although it does not completely and correctly represent the Japanese approach, terms like “Continuous Flow Manufacturing” are also used. Famous Japanese

consultant Shigeo Shingo uses the term “Stockless Production”. However, “Lean Manufacturing” has been the most commonly accepted one among these terms.

The terms we catch as lean philosophy, lean manufacturing or Toyota production system in fact represent the same concept. In the literature, terms like just-in-time manufacturing, Toyota production and stockless production are used as an equivalent of the Lean Manufacturing System. Lean manufacturing as a term was suggested in the 1980s by the International Motor Vehicle Program (IMVP) which had been conducting studies on the global automotive industry at the Massachusetts Institute of Technology (MIT) in the US. The term gained worldwide acceptance with the publication of the book “The Machine That Changed the World” by IMVP in 1990. Just-in-time Manufacturing is a term used by the founder of the system, Taiichi Ohno, to define the production system in question. The term Toyota Production System is generally preferred by Japanese experts and researchers. Stockless production is a term used by Shigeo Shingo, who worked as a consultant for numerous businesses including Toyota regarding the unique techniques of the system (Zeybek, 2013).

According to Womack (1990), compared to mass production, lean manufacturing is a system that consumes at least the half of everything. That is, when compared to mass production, half labor force, half production area and half equipment investment are required in a lean factory and half engineering time is needed in developing a new product. At the same time, half of the amount needed, less defective manufacturing and greater variety of production are advantages provided by the lean manufacturing system.

Principles and Characteristics of Lean Manufacturing

Lean Manufacturing targets to offer high performance, zero-error products to the customers by aiming to achieve high efficiency and quality in engineering and factory processes. It can be stated that the lean manufacturing system involves four fundamental characteristic principles (Rutherford et al., 2002):

- (1) Product design based on continuous development and use of general purpose machinery,
- (2) Prevention of buffer stocks and reorganization of the manufacturing process in order to develop production flow,
- (3) Synchronous production for decreasing bottlenecks and establishing quality,
- (4) Creation of a new working organization that will better utilize the knowledge of the labor force and improvement of team work.

According to Acar (2002), the characteristics of the lean manufacturing system are as follows:

- Leaders have a vision and a fighting spirit has been built in the minds of employees.
- At all times there are targets that are planned to be achieved.
- Targets are measurable and a reward system is in use.
- Long-term strategic plans are made.
- The human factor is in the forefront and is encouraged to participate through continuous development.
- It is important to see the whole.

- The system is customer and product oriented.
- Communication systems are as important as the production systems.
- Cross-functional groups are formed for product or production development.
- Employees bear responsibility.
- There is always a continuous search for innovation.
- Production is based on demand.
- Processes are established in a way to maintain continuous flow.
- Production lots are small and there is a flexible production system.
- The system focuses on prevention rather than correction.

Wastes in Lean Manufacturing

It is necessary to bear in mind the following two factors in order to completely eliminate all wastes and losses.

- (1) Increasing efficiency is meaningful only when it decreases the cost. To achieve this result, it is necessary to produce only what we need and to use labor at the minimum level possible.
- (2) We should observe the efficiency of each worker and each production line. Then, to increase efficiency in parts and as a whole, we should examine the workers in groups and evaluate the efficiency of the whole plant, that is, the whole factory (Ohno, 2010).

The factors that cause waste are as follows (Rother and Shook, 1999):

Inefficient operating methods, long lead times, inefficient processes, lack of training, insufficient maintenance, long distances, lack of leadership.

The explanations and details of the aforementioned wastes in production are as follows (Rother and Shook, 1999):

- Waiting times of the worker within the machine time are idle times when no work that adds value is done. This waste can be explained as the waiting of the machine or the waiting of the human.
- Unnecessary material transfers; are the movements of the material which do not add any value to the product and/or services.
- Unnecessary non-value-added operations; is to spend efforts for processes that add no value. Such processes include improvements that do not affect the customer.
- Semi-manufactured and finished product stocks; is the stocking of material, semi-manufactured and finished material beyond the amount needed for sale.
- Unnecessary worker movements; is the type of waste that occurs when workers are moved for a purpose that does not add value to the product and/or services.
- Scrap materials; repairing, fixing or remaking and repeating a product and/or service according to the requests of customers.

Nishiguchi (1989) points out the following based on Ohno's practices. According to lean manufacturing approach, one of the biggest wastes or delays that might occur in the operation of a workstation/factory is the time wasted due to passive operations that add no value to the product such as moving the workers from one place to another, checking the operation of the machines, or waiting by the machine for the engine speed to halt.

These wastes result from transportation (carrying the materials/products from one place to another), stock (waiting of processed material/products), unnecessary movement (excessive movement under low ergonomic conditions), waiting (because of halts, deficiencies and confirmations), overproduction (producing more than required), over processing (adding more value than what the customer wants to pay), errors/reprocessing (correcting the errors).

Lean Manufacturing Technique SMED

Lean manufacturing uses certain application techniques in order to meet the principle of producing everything when needed and in the amount needed, in other words, not producing anything beforehand and in unneeded amounts, which is the main purpose of just-in-time production (Monden, 1983). In the third part of our study, within the scope of our research, Single Minute Exchange of Dies (SMED) lean manufacturing technique will be implemented and its effect on production efficiency will be examined.

Single Minute Exchange of Dies (SMED)

Shigeo Shingo, who worked as a consultant for numerous businesses in many countries around the world including Toyota, saw the “essential” primary requirement for stockless production in the 1950 as decreasing the “set-up” times of machines and managed to decrease these times in a very short time in hundreds of companies through the methods he developed. In this way, any machine had the ability to pass from one part to another in a few minutes, even in some cases in less than 1 minute. Thus, the machines gained an incredible flexibility and went beyond being “stock producers”. This method is named as “single-minute exchange of dies: SMED”, which was developed by Shingo to decrease set-up times (Okur, 1997).

Basic SMED principles are as follows:

1) The first step and the first principle is to detect the procedures that can only be completed while a machine is not operating (internal setup procedures) and the procedures that can be performed while a machine is still operating (external setup procedures) and converting all internal setup procedures to external setup procedures. In this way, it would be possible to save time at a ratio of 30-50%. For this, first it should be determined which procedures are performed when the machine is not operating and which ones are performed when the machine is still operating. If some of these procedures are being performed when the machine is stopped although they can easily be performed while it is operating without having an important change, this would be a big waste of time. Such procedures should definitely be performed when the machine is operating. These relatively simple changes should not be considered to be enough. It should be persistently maintained to perform more and more procedures when the machine is operating. For this, the possible adjustments that can be performed on the dies, tools and the equipment used needs to be investigated and solutions should be developed for practice.

2) In the change of dies, systems or carriers (conveyors) should be used which facilitate the removal of the previous die and the mounting of the next die. Such mechanization would shorten the time for shifting from one die to another.

- 3) Eliminating the necessity of adjusting the machine when connecting a die would help save time. For this, it is necessary to have standardization in the dies and machine parts used in the connection process. For example, if the connection parts of the dies with the machines are standardized, that is, they are in the same size and shape, the same fasteners and tools can be used when connecting the dies. Thus, the standardized die changing process will take less time.
- 4) Designing the clamps and fasteners in a way that does not require screws and bolts also helps save time. In this way, workers can perform the fastening and unfastening procedures in a shorter time. For example, it is more proper to use the “pear shaped holes” method instead of screws in the fastening process.
- 5) Approximately 50% of the die changing time is allocated to the adjustment and trial procedures performed after the die is fastened. However, this waste of time can be automatically prevented if the die at first fits in its place as required. The methods that can be used here are one-touch setup “cassette” systems through which the die fits its place in a single touch, or a limit switch attached to the machine. In this way, there is no need for an adjustment process after the die is installed.
- 6) Storing the dies in places far from the machines causes waste of time through transportation. The solution to this problem is to keep the frequently used dies right beside the machines (Okur, 1997).

Methodology

The aim of the present study is to determine whether SMED, which is a lean manufacturing technique, increases production efficiency in the textile sector. This study is important with respect to how applicable the lean manufacturing philosophy is in the textile sector and to what extent it has an effect on the sector.

A method aiming at implementing a case analysis based on longitudinal data was used in the present study. Case study is a research method that investigates a contemporary phenomenon within its real-life context, over which the investigators have no control, when the boundaries between the phenomenon and the context are not clearly evident, and in which multiple sources of evidence are used (Yin, 2003). Longitudinal case analysis was used through approaching the innovation process that characterizes the enterprise business culture within the scope of marketing innovation. Longitudinal case analysis explains the changes at the organizational level, product differentiations, marketing innovations and process improvements by observing through months and years (Pettigrew, 1990; Van de Ven and Huber, 1990; Roberts and Amit, 2003; Damanpour, 2009). Besides, longitudinal data are important in that they measure the direction and degree of change and allow for causal explanations and interpretations (Menard, 1991). Longitudinal data provides the best results, approaches and estimates for having comprehensive and meaningful information especially about organizational processes and structures (Eisenhardt, 1989; Yin, 2003).

The universe of the study was the textile manufacturing businesses established in Turkey, and ISKO Textiles Inc. was selected for having the relevant qualities that represent the sample set. The most important reasons for selecting ISKO Textiles Inc. were that it was easy to access primary data, the company had become one of the biggest denim fabric manufacturers in the world in a short period, had serious and high R&D investments-which is a requirement of innovation studies in the textile sector-, and succeeded to become the most innovative brand in this field.

Composing the Literature and Proposal for Lean Manufacturing Techniques

The Master's thesis entitled "Lean manufacturing and a sample lean manufacturing implementation in Man Turkey Inc." has been summarized as follows: In today's complex world, the need for continuous improvement in products and processes is obviously known. Lean manufacturing, which has been increasingly implemented worldwide, is a sum of methods that aim to eliminate waste and inefficiency from manufacturing processes in order to maintain lower costs and greater competitiveness for manufacturers. In fact, lean manufacturing is one of the most important manufacturing development systems for manufacturers. In this study, the cooler pre-assembly area in MAN Turkey Inc., which is one of the leader bus manufacturers in Turkey, was analyzed based on the principles of lean manufacturing. In the implementation, all the processes in the cooler pre-assembly area were observed and work flows were determined. For these work flows, time measurements were performed by using the REFA time study method. Furthermore, current and suggested models were compared by using the Arena simulation program. Thus, the operations which do not create any added value were determined and eliminated in the improved state. In this way, an average of 42% was saved in pre-assembly times and 46 m² was saved in plant layout usage. The capacity plans were redesigned and as the result of lean manufacturing implementation, the number of workers at the work station was decreased from 3 to 2 (Arslan, 2008).

In a Master's thesis written in English entitled "The application of lean manufacturing principles to an aircraft maintenance, repair and overhaul company", the application of lean manufacturing concepts to a maintenance, repair and overhaul (MRO) company in a nonmanufacturing environment was examined. The aim of the study was to investigate how lean manufacturing tools can be adapted for an MRO work environment to identify and eliminate waste so that financial performance, productivity, quality, workplace safety and health are improved. The study endeavored to implement some of the lean techniques to an MRO company analogous to a manufacturing work environment. This idea was tested on Turkish Technic, the MRO Company of Turkish Airlines. As the first step, value stream mapping (VSM) was used to map the current state for the C-Check maintenance package process and the wastes within the process were determined. Then, the process was improved using lean principles and its future state was mapped using VSM. After that, 5S method was used in stands and ladders area, main tool shop and seat shop to organize these worksites and eliminate unnecessary movements, and non-value-adding search, determine the work method and improve safety and ergonomics issues in these work areas. Lastly, accelerated improvement workshop (AIW) was used to improve the assembly process of HPC Forward and HPT Shroud / LPT Nozzle modules of an engine. The results of the study showed that VSM displayed the wastes and bottlenecks in the C-Check package

process. It also provided an implementation plan which reduced the time of the process from 12 days to 2½ days. Furthermore, 5S provided an efficient and organized workplace and eliminated safety and ergonomics problems related with the work area. Finally, a significant increase was maintained in efficiency for three module assembly processes. All these improvements showed that lean manufacturing methods can be applied to increase the productivity of a maintenance, repair and overhaul company (Açikkollu, 2008).

From this point, the proposal below can be developed in order to implement SMED, which is a lean manufacturing technique in the general sense, in a textile business and to examine the relationship in terms of production efficiency.

Proposal: SMED Lean Manufacturing Technique has a positive effect on production efficiency.

The SMED study ‘Complete change of back adjustments and frame heights for a bench which has undergone a type change’ which was conducted by ISKO Textiles Inc. in order to decrease the revision times of the operation consists of 10 stages. These stages can be respectively listed as; setting up the team, waste and current state analysis, project plan, setting the targets, analysis and determining the countermeasures, implementation of the improvements, verifying the results, target/result analysis, gains, and standardization.

Within the scope of the research, the current state was analyzed and countermeasures were determined.

- Long-short weft yarn tunnels need to be on site, because otherwise the cleaning time gets longer.
- The existence of a single oil feeder causes extra walking and waiting times when operating synchronously. The number of oil feeders should be increased.
- The air holding process needs to be completed at a time by removing all the lids and then the wiping, fastening, lubricating procedures should be performed rather than doing these steps piece by piece, because the next blow might cause extra sublimate in the previous section.
- Contamination should be prevented by properly covering the machines that have completed the weaving process.
- Performing the change at the same time with cleaning the frequency gears may shorten the time.
- Unnecessary walks need to be avoided and the required material should be at the site before starting the work.
- It is necessary to be careful about not using the blowgun unnecessarily and a trial operation needs to be done to see whether the last general air blow would decrease the time.
- Steps should be taken to shorten the time by bringing the wiper to a capacity at which he can perform other tasks at idle times.

Variables

In the present study, the revision times observed on the production department between the 41st and 52nd weeks of 2013 were taken as variable in order to determine whether the implementation of SMED would have an effect on production efficiency.

Data Collection Procedure

In the study, first of all, the related literature was reviewed and the necessary information was obtained in order to form a theoretical basis. A form was developed for examining SMED Lean Manufacturing Technique through case analysis at ISKO Textiles Inc. in the October, November and December of 2013 in order to find an answer to the research problems and to achieve the aim of the study. The required information was gathered through face-to-face interviews with the business management.

Findings of the Study

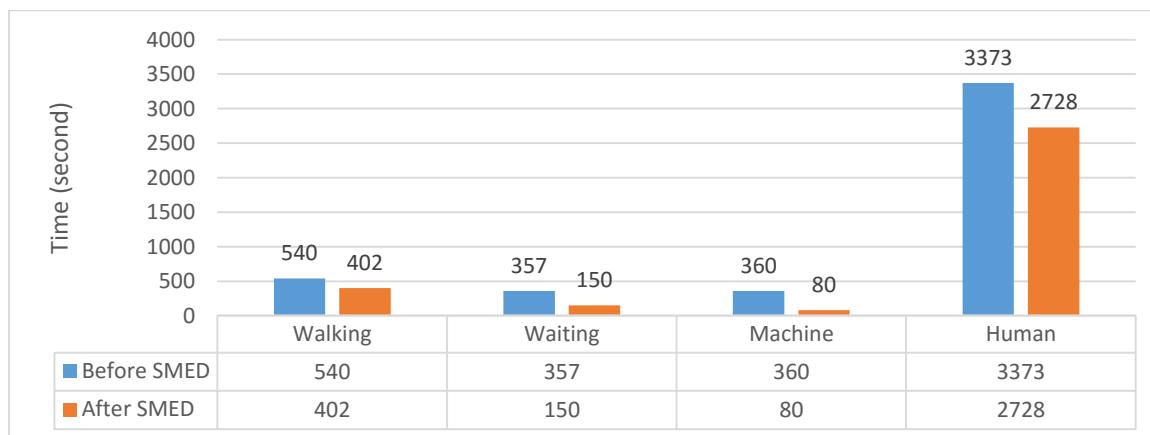
The following findings were obtained as the result of the measures taken: Before any step was performed, that is, before the SMED studies in October 2013, the process change-over time was 4500 seconds (75 minutes). Based on the SMED studies, the target predictions of the department was 3840 seconds (64 minutes) until the end of the year for December 2013. However, as the result of the study, this period was decreased more and was found as 3360 seconds (56 minutes). An improvement of approximately 25% was achieved as the result of the processes.

Table 1: Revision Master before SMED

	Walking	Waiting	Machine	Human
Seconds	540	357	260	3343
Minutes	9	5,95	4,33	55,71

Table 2: Revision Master after SMED

	Walking	Waiting	Machine	Human
Seconds	402	150	80	2728
Minutes	6.7	2.5	1.33	45.46



Graph 1: Revision master times before and after SMED

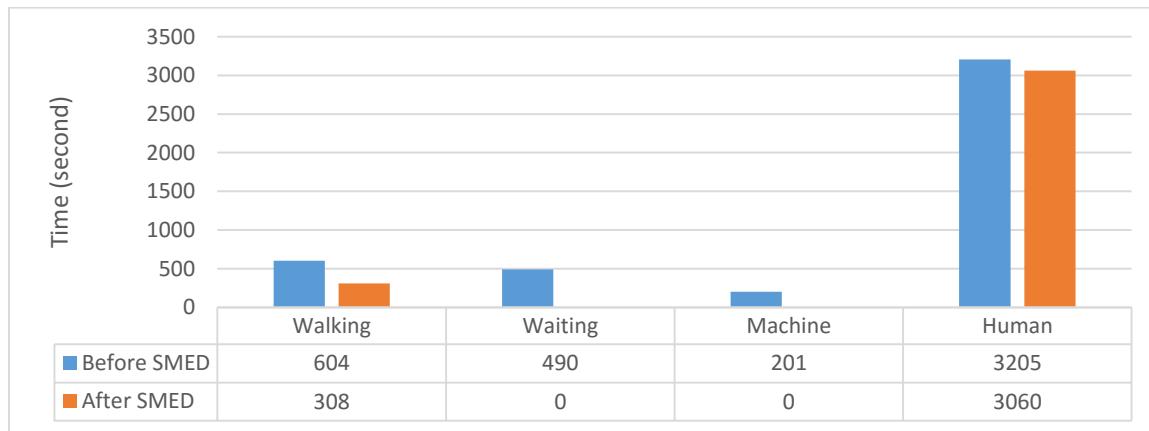
Based on the information given above, the revision master spent 4630 seconds (77.16 minutes) for the processes to be performed before SMED. The time spent after SMED was found as 3360 seconds (56 minutes). The total time saved by means of SMED was 21.16 minutes.

Table 3: Wiper before SMED

	Walking	Waiting	Machine	Human
Seconds	604	490	201	3205
Minutes	10,06	8,16	3,5	53,41

Table 4: Wiper after SMED

	Walking	Waiting	Machine	Human
Seconds	308	0	0	3060
Minutes	5.1	0	0	51



Graph 2. Wiper Times before and after SMED

Based on the information given above, the total time spent by the wiper before SMED was 4500 seconds (75 minutes). The total time spent after the implementation of SMED was found as 3368 seconds (56.13 minutes). A total of 18.47 minutes was saved by means of SMED.

The data obtained as the result of all SMED implementations performed in 2013 are as follows:

- In 2013, a total of 49425 minutes (823.75 hours) was spent for the 659 procedures performed at the department. After the improvement, this time decreased to 615 hours.
- The total time saved was 12521 minutes.
- The labor saved was 416 man hour/year.
- An SOT plan was created for the SMED implementation in 2013 and the operations were standardized by taking the necessary precautions.

Conclusion

In our day, businesses need to meet the consumer expectations that have been rising each passing day in order to be successful in an environment of global competition. Whether the customers are individuals or another producer or supplier, businesses have to supply the best quality product with the most economical price and in the optimal time in order to continue their existence. In Turkey today, every business faces the fact that they have numerous competitors and they serve to conscious consumers.

Lean manufacturing is a system of production which was first adopted by Toyota and which you can observe in all lines of business around the world. Businesses that have integrated lean manufacturing into their operations will have more flexibility and high revenues as the result of this flexibility. In fact, the lean manufacturing approach aims to reach a faster and more flexible production standard by eliminating the understanding of stock and unnecessary expenditure items. Textile industry comprises processes starting with fiber and proceeding with yarn, weaving, darning, die and press, whereas the garment industry involves the processes that turn these into end products for use. The process from fiber to yarn and fabric is known as textile. Textile is among the leading sectors that constitute an important building block of the industrialization process and have significant contributions to the progress of developing countries. In this sector with fierce global competition, the abolishment of quotas has made competition more important in terms of both supply and demand.

In the present study, the SMED practices that were integrated into production at the ISKO 11 department of ISKO Textiles Inc. are presented. This lean manufacturing technique which the department implemented provided numerous savings in terms of money, time, physical and mental conditions. Decreases were observed in the time spent for the production of goods and for various procedures that support the production process while increases were experienced in efficiency and effectiveness.

In the ‘Complete change of back adjustments and frame heights for a bench which has undergone a type change’ analysis conducted by the department to decrease revision times, a total of 49425 minutes (823.75 hours) were spent for 659 procedures. As the result of the improvement process, this number decreased to 615 hours and a total of 12521 minutes were saved. Besides, the total labor saved was 416 man hour/year. It was found out that the implementation of SMED Lean Manufacturing Technique in the textile sector had a positive effect on production efficiency.

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The Effect of Subjective Wellbeing on Turnover Intention of Hospitality Managers: An Empirical Study

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Abstract

Turnover rates in the hospitality industry tend to be significantly higher than the national average and thus, are of importance to hospitality organizations. Employee wellbeing has been linked to turnover. The purpose of this study is to explore the impact of subjective wellbeing on turnover intention from the manager's perspective in the hospitality industry. Management employees in various aspects of the hospitality in the United States will be surveyed regarding their perception of their own wellbeing and their intention to turnover.

Keywords: turnover, subjective wellbeing, management, hospitality

Introduction

Hospitality industry turnover rates tend to be significantly higher than the national average (Ricci & Milman, 2002). Turnover has been linked to factors such as job dissatisfaction (Deery, 2008), poor management (Tutuncu & Kozak, 2007), stress, etc. Employee wellbeing has also been cited as a reason for turnover (Amin & Akbar, 2013) and employee subjective wellbeing, or happiness, has been found to have a significant impact on intention to stay with a company (Gordon, 2014). However, retaining employees can lead to a competitive advantage through human capital for an organization (Dawson & Abbott, 2011), so supporting employee wellbeing can be critical for organizations.

Hospitality's characteristics of low pay (DiPietro & Condly, 2007), little training (Karatepe, 2009), long hours, varying schedules, and job demands (Deery, 2008) can be mentally draining for employees and negatively affect their wellbeing. Furthermore, engaging in emotional labor (suppressing and regulating emotions) on a regular basis due to constant guest contact can also have a negative effect including depression (Constanti & Gibbs, 2005) and stress. These difficult working conditions and low wellbeing combined with the pressures of a management role, can lead to management turnover.

Literature Review

Subjective wellbeing, also referred to as happiness, is an element of overall wellbeing (Ryan & Deci, 2001; Wright & Cropanzano, 2000). Often happiness is used to refer to mental wellbeing (Wright & Cropanzano, 2000), which comes from the field of psychology. When employees are happy, they may be more creative (Wright, 2006), have higher job performance (Wright & Cropanzano, 2000), be more motivated (Lu, 1999), have better relationships with other employees (Ryff, 1989), and be more engaged (Huhtala & Parzefall, 2007), among other benefits. For example, in the food service setting, Ghiselli, La Lopa, & Bai (2001) found that managers who were more satisfied with their jobs and lives were less likely to leave the organization. However, if employees are unhappy, they

are more likely to burnout (Huhtala & Parzefall, 2007), be more stressed (Ashforth & Humphrey, 1993), experience emotional exhaustion (Karatepe & Karatepe, 2010), and leave their positions (Gordon, 2014; Karatepe & Karatepe, 2010). According to Matteson and Ivancevich (1987), “stress causes half of absenteeism, 40% of turnover, and 5% of total lost productivity” (Lu, 1999, p. 61). O’Neill & Davis (2011) found that hotel employee stress was related to negative health issues. They also found that hotel managers reported more triggers of stress (such as “interpersonal tensions”, “work overloads”, “work arguments”, guest issues, and coworker issues) than hourly employees, (p. 388). Managers can also have a negative impact on the wellbeing of their employees. Because managers are often in stressful, high-pressure situations, they can inadvertently cause stress to their employees (Sparks, Faragher, & Cooper, 2001).

Understanding how management subjective wellbeing effects turnover intention will benefit many stakeholders such as the hospitality industry, managers, and hourly employees. For example, hospitality organizations will be able to implement strategies to improve management wellbeing in an effort to reduce turnover. These strategies will bring positive outcomes such as reducing costs associated with turnover and low employee wellbeing or improving relationships between supervisors and employees to improve organizational performance. Supervisor actions are perceived by many employees to be a major impact on their own subjective wellbeing (Gilbreath & Benson, 2004). Research has shown that people leave an organization due to a supervisor more than any other reason (Agrusa, Spears, Agrusa, & Tanner, 2006) and hospitality employees are no exception as they have listed supervisors as the primary reason for departing (Kim & Jogaaratnam, 2010).

The purpose of this study is to explore the impact of managers’ subjective wellbeing on turnover intention within the hospitality industry. The research objectives of this study are:

1. To study the effect of subjective wellbeing on turnover intention
2. To examine differences by management characteristics
3. To investigate differences by organizational characteristics

Methodology

People who are at least 18 years of age or older and hold management positions in the hospitality industry in the United States will be asked to participate in the study. Participants will be sought from various hospitality areas such as hotels, restaurants, airlines, cruise ships, event planning organizations, etc.

Based on a thorough review of the literature a three-part questionnaire was developed. Section 1 of the survey will assess managers’ subjective wellbeing. The scale measuring the employees’ self-assessment of their own subjective wellbeing was developed by Mroczek & Kolarz (1998) and was based on Cantril’s (1965) Self-Anchoring Scale. The scale consists of twelve affect items asking respondents to indicate how much of the time over the past 30 days they felt six types of negative and six types of positive indicators of affect. The items will be rated on a 5-point Likert scale of one (1) to five (5) with one (1) being none of the time and five (5) being all of the time. Negative items will be reverse coded so that higher scores represent less negative affect. The scores will then be summed for each affect scale. The two total affect scores will then be summed for an overall

wellbeing score, in accordance to their use by Keyes, Shmotkin, & Ryff, (2002). Section 2 of the survey will measure turnover intention. Turnover intention has been used in place of actual turnover because employees usually make a conscientious decision before actually leaving their jobs (Amin & Akbar, 2013) and Price (2001) has recommended the use of turnover intention as a proxy measurement for actual turnover. Turnover intention will be assessed using a scale adapted from Colarelli (1984). The scale uses a 5-point Likert scale where one (1) is strongly disagree and five (5) is strongly agree and consists of three items, which will then be averaged for one score per participant. Section 3 of the survey will seek demographic characteristics and consists of two parts. The first part will focus on personal characteristics of the participants such as gender, age, and highest level of education completed. The second part will consist of characteristics pertaining to the organization or work history of the participants.

Institutional Review Board approval will be obtained prior to collecting any data. Data will be collected using an online survey, which will be disseminated via social media sites such as LinkedIn and Facebook. Those who choose to participate will be asked to forward the survey link to others. Data collection is anticipated to take place during the latter part of 2015.

Conclusions

Potential findings of this research will relate to managers' subjective wellbeing as an indicator of intent to turnover. This study will have practical implications, as hospitality organizations will be able to better understand how managers' wellbeing in terms of minimizing management turnover. For example, the types of managers more likely to turnover given certain levels of wellbeing, such as those who are newer to the organization or those who manage large groups of employees. This may lead to organizations putting structures in place to better support management personal wellbeing such as offering Employee Assistance Programs and wellness programs to help managers to lose weight, stop smoking, or deal with stress or measuring management wellbeing on a regular basis through employee surveys and participation in wellness initiatives. This study may also lead to organizations providing training to their managers to manage their own stress so as not to inflict it upon employees (Sparks et al., 2001) by altering their leadership style, better handle emotional labor, and engage in positive behaviors that impact their mental health (Gilbreath & Benson, 2004). These practices may allow organizations and managers to make changes to increase management subjective wellbeing, which may lead to lower turnover intention and thus, higher levels of employee satisfaction, guest satisfaction, guest loyalty, and profitability for the organization.

The study will advance the academic work done in the hospitality industry, as currently little research exists on management wellbeing and turnover. The study adds to literature on employee wellbeing and helps to answer Wright's (2006) call to action of wellbeing predicting turnover intention. This research will also extend that being conducted on the positive aspects of employee wellbeing for employees and organizations.

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Empowering Working Women with Information and Communication Technologies in Turkey

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Abstract

The main purpose of this study is to determine the role of Information and Communication Technologies (ICT's) in empowering working women in Turkey. Data are collected from 120 working women who are working at service (79%) and manufacturing (21%) sectors in Ankara, Turkey. According to findings women take advantage of news, communication, information, business support and education of ICT's. Moreover managers use Facebook, Twitter, and Google+ to create awareness, communicate/collaborate, gain new customers, marketing, information gathering and networking. Finally it is found that the benefits of ICT's in the fields of effective communication, information gathering and knowledge sharing play significant roles in women's empowerment in Turkey.

Keywords: empowerment, working women, information and communication technologies

Introduction

The conventional interpretation of the rise in women's employment, education and senior management in Turkey often attributed it to secular ideology and Westernizing reforms of Mustafa Kemal Atatürk. One of the crucial targets of Turkish Republic reforms was to equip the Turkish women with social and political rights so that they have equal opportunities with men in all segments of society. Since the foundation of the Republic, effective policies were implemented towards achieving this target. Mustafa Kemal Atatürk who founded the state of the Turkish Republic in 1923 was a great leader. He aimed to give women equal status with men. His reforms affected the situation of working women positively.

Atatürk emphasized that it is important for all Turkish citizens -women and men- to join equally in contributing to Turkish economic, social and cultural life (MEB, 1989). After 1923, women's social and political rights were gradually put into practice. Abrogation of sultanas' rule in 1924, adoption of secularism, unification of education, acceptance of the principle of equality by the Turkish Constitution constructed the infrastructure for improving women rights. In 1928, the country was proclaimed as a secular state with a Western-style Constitution. The Islamic courts and religious schools were abolished and a Latin-based alphabet replaced Arabic and Persian ones. Abolition of veil under the "Dress Reform" in 1925 and the adoption of the "Civil Law" in 1926 reinforced the egalitarian legal framework. Atatürk adopted legal codes used in Germany, Italy, Switzerland and

abolished the traditional Muslim governing body, the caliphate. The Turkish Republic was founded on secular principles. The Turkish Civil Law provided many rights for women: for example, polygamy and unilateral divorce by men, as per the prevailing law, were abolished and women were granted the right to divorce and to child custody, as well as property rights in 1926. It is important to note that women's rights are changed substantially in the first ten years of the Turkish Republic (Başgöz, 1995).

In 1930 the maternity leave was organised. Girls and boys could go to school together with equal rights in 1924. Women were included in the First Census in 1927. On the other hand, women were granted with equal rights and opportunities as men, in education and employment after the adoption of the new Turkish alphabet and the new education campaign. They participated to the first municipality elections in 1930 and gained the right of representation in the parliament in 1934 elections. In 1935, the Turkish women's movement gained international recognition as the International Women's Union held its 12th Congress in Istanbul (Tekeli, 1993). In 1937, Turkey became a secular state by law, culminating further relaxation of laws and social norms which constrained women's full participation in the public life in Turkey (Bilge, 1995). In 1937, women's working at dangerous and heavy jobs underground was banned. In 1945 motherhood insurance in other word birth help was organised. In 1965, the law which sets free the birth control and abortion in medical case was enacted. In 1966, the ILO agreement which provide equal salary for men and women workers was accepted. In 1985, the woman topic became a sector at the "5 year Development Plan" of the Turkish State Planning Organization (DPT). In 1987 within DPT "Women Policy Advisory Board" was founded.

On October 25, 1990 the Turkish Women's Status General Directorate (KSSGM) was founded as a national mechanism. On June 25, 1993, Turkey's first woman prime minister founded the government. In 1993, Halkbank started low-interest loan to encourage woman entrepreneurs. On January 17, 1998 "Code for the Protection of the Family" went into effect. In 2002 "Family Courts" have been established and the new Civil Law which gave women new rights came into effect. On June 10, 2003, the Turkish Labour Code was enacted. It stated that there cannot be distinction between employer and employee relationship about human rights no matter what the gender is, there cannot be different process on employment contract's signing, ending and fulfilling due to gender and maternity as directly or indirectly, there cannot be unequal salary for the same job due to gender; maternity, family responsibilities, birth and marital status are not reasons to abolish the employment contract. On July 21, 2004 regulations were put to increase maternity-leave at the "Turkish State Officers Code" and on September 24, 2004 the new Turkish Penal Code which includes gender equality and modern arrangements includes violence against women was accepted. On July 13, 2005 the new Turkish Municipality Law went into effect. It has been obligatory to open shelters for battered women and children in cities with 50 000 and over population. In 2006, the Turkish Prime Ministry Memorandum titled "Precautions to prevent moral and honor murders against women and children" was published. In 2007, the Turkish National Action Plan to Struggle Violence against Women in Family (2007-2010) was put in progress.

The National Gender Equality National Action Plan (2008-2013) has been prepared by the Turkish Women's Status General Directorate (KSSGM) in 2007. Especially the importance of gender mainstreaming is emphasized in the plan. Another important step for gender equality in Turkey is the foundation of the "Equal Employment Opportunities Commission" in Turkish Parliament in February, 2009. "The Law to Protect Family and Prevent Violence against Women" was enacted on March 20, 2012. Turkey was the first country to ratify the Council of Europe Convention on Preventing and Combating Violence Against Women and Domestic Violence, also known as the İstanbul Convention, in March 2012 (Law no.6284: Law to Protect Family and Prevent Violence against Women, 2012).

In 2012, the Turkish Ministry of Family and Social Policies was established. Moreover, in 2012, Struggle to Violence against Women National Action Plan (2012-2015) was published. Through the declaration which was published by Family and Social Policy Ministry, the widow women and those have no health insurance will be given cash social help, 250 TL, as regularly in 2-months period as long as they need this. On March 8, 2015, Struggle to Violence against Women National Action Plan (2016-2019) was announced by the Turkish Prime Minister.

Turkish women entered education, employment and other public domains of life increasing numbers between 1930s and the 1970s. There is a positive correlation between women's education and their employment (Özkanlı, 2001, 131). In Turkey the representation of women in management in public companies is low: women comprise just 3.9% of General Managers, 6.6 % of Assistant General Managers, 14.1% of Head of Departments, 16% of Managers and 27.3% of Assistant Managers in the public sector (TUSIAD-KAGIDER, 2008). From international perspective, CEDAW (The Convention of Elimination of all Forms of Discrimination against Women) was signed by Turkey in 1985. This convention is an important international document aiming at eliminating all forms of discrimination against women in the private as well as the public domain in the undersigned countries (cited in Acar, 1998, 26-31). The Nairobi Forward Looking Strategies, The European Social Charter, the ILO Agreements, The Convention on the Rights of Children (CRC) and other similar human rights agreements...etc. are examples of international documents signed by Turkey (Özkanlı, 2001, 124).

World Economic Forum (2015) reported that out of 142 countries gender gap index of Turkey in 2014 had an overall ranking of 125 for all fields including ranking of 132 for the economic participation and opportunity, ranking of 105 for the educational attainment, and ranking of 113 for the political empowerment. These rankings didn't change dramatically last five years (see Table-1). Women's total labor force participation rate is 32 percent with consisting of 12 percent of legislators, senior officers or managers and 37 percent of professional and technical workers (World Economic Forum, 2015).

Table 1: The gender gap reports for Turkey between 2010 and 2014

Year	Overall Ranking* / Score**	Economic Participation and Opportunity	Educational Attainment	Health and Survival	Political Empowerment
2014	125/0.618	132/0.453	105/0.953	1***/0.980	113/0.088
2013	120/0.608	127/0.427	104/0.943	59/0.976	103/0.087
2012	124/0.604	129/0.414	108/0.930	62/0.976	98/0.087
2011	122/0.595	132/0.389	106/0.920	62/0.976	89/0.097
2010	126/0.588	131/0.386	110/0.892	61/0.976	99/0.077

*ranking compared to 142 countries, **score ranged between 0.00=inequality to 1.00=equality, ***not ranked

Empowering employees is an essential tool for today's organizations to be successful in global business environment. However, compared to men, working women face many disadvantages stemming from social, economic, cultural or regional factors affecting the empowering role in the workplace. The factors such as intermediate phase of modernization, patriarchic ideology, low education, religion and family culture may shade off disadvantages for the Turkish working women.

In recent years information and communication technologies (ITCs) are suggested as an empowerment tool for disadvantaged groups such as women (Hafkin & Huyer, 2006; Maier & Nair-Reichert, 2007; Nord et al, 2015). ITCs play a key role especially in increasing the individuals' capacity to reach and utilize the information and knowledge. The aim of this study is to determine the role of ICTs in empowering working women in Turkey.

Literature Review

Empowerment is defined as "a participative process to utilize the entire capacity of workers, designed to encourage employee commitment to organizational success" (Cotton, 1996). The roots of the empowerment in organizational studies depend on control and power. While the power is thought as a relational construct, the control is thought to relate with the motivational construct (Conger & Kanungo, 1988). Based on these perspectives two different approaches proposed for empowerment in the workplace (Liden & Arad, 1996). The macro approach is related with theories of social exchange and power which focus on social or contextual conditions that allow empowerment in the workplace. The micro approach focus on empowerment experiences of individuals in the workplace.

In this study empowerment is defined as a process of boosting psychological states and raising control beliefs of organizational members focusing in the second approach. From the psychological view empowerment was seen as an intrinsic motivational state holding set of cognitions as meaning, competence, self-determination and impact (Spreitzer, 1995). The meaning is the personal assessments about value of work purposes. Competence is one's beliefs in own capacity to perform a task. Self-determination is a sense of having choice or autonomy in initiating and continuing a work activity. Impact is the degree to which one can influence higher level outcomes. All these cognitions reflect an active participation to work role.

Although empowering employees is an essential tool for today's organizations because of its expected potential for increasing organisational effectiveness and innovation, working women face many disadvantages including inequities in hiring practices, promotion, salary, career, and other aspects of employment in the workplace. With recent developments in technologies for the disadvantaged groups ITC's are suggested as an empowerment tool especially for women (Hafkin & Huyer, 2006). Some of the benefits of ITC's are proposed as increased self-esteem, self-confidence, networking (Huyer, 2002). Maier & Nair-Reichert (2007) proposed a set of best practices in the areas of ICTs and the empowerment of women through e-commerce/e-retailing. Some of the practices were strong initial and continued training, access to necessary resources, help in expanding the market, government and societal support, good networks, an open and participatory management style. Martin & Wright (2005) showed that female entrepreneurs gain financial backing and recognize themselves as committed and successful entrepreneurs with the help of the equalizer role of ICT's. All these results indicate that ICT's may be a psychological empowering tool for working women in the workplace.

Methodology

Sample

Data are collected from the working women who are working at service (79%) and manufacturing (21%) sectors in Ankara, Turkey. The survey and qualitative study are completely voluntary. A series of questions are asked and the descriptive responses are written. The confidentiality of the participants is maintained in all references to the surveys. The sample consists of 120 working women who are the user of social technologies such as Facebook, Twitter, LinkedIn, YouTube, and Google+ for business purposes. Their mean age is 34.11 (SD=6.25).

Instrument

Survey method is used in this study. The questions are (Nord et al, 2015): How do you access computers/technology? How long have you been using computers/technology? What kind of purposes do you use computers/technology for? What benefits do you get from computers/technology? What kind of purposes do your organization use computers/technology for? Do/Does computers/technology empower you or increase your personal success? If yes How?

Data Analysis

The structured questions were analyzed with using descriptive statistics. For the open ended question, the answers were reviewed by authors and three different domain experts separately for classifying all comments in terms of general aspects. Differences in classifications between experts were discussed in series of sessions mutually until reaching a compromise.

Findings

Figure 1 presents the percentages of educational status of the working women. The majority are graduated from university (61.7%), the others have a degree of master (25.19%), PhD (6.87%), or high school (6.87%). Although women's general level of

tertiary education is at 14 percent for Turkey (OECD Education Index, 2012), the sample have higher level of education with 93.13 percent.

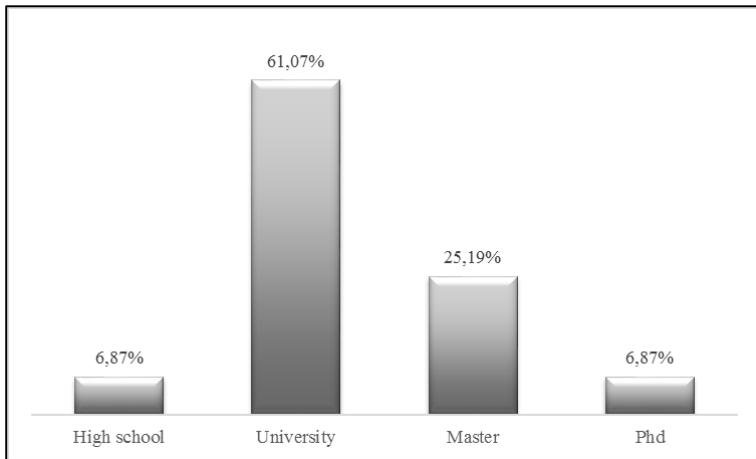


Figure 1: The status of education

The marital status of the sample shows that 51.15 percent of women are married, 39.69 percent of them are single, 5.34 percent and 3.82 percent of them are divorced and widowed respectively (see in Figure 2).

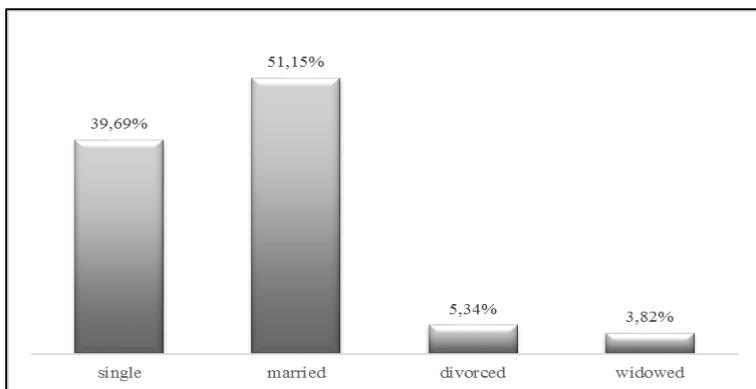
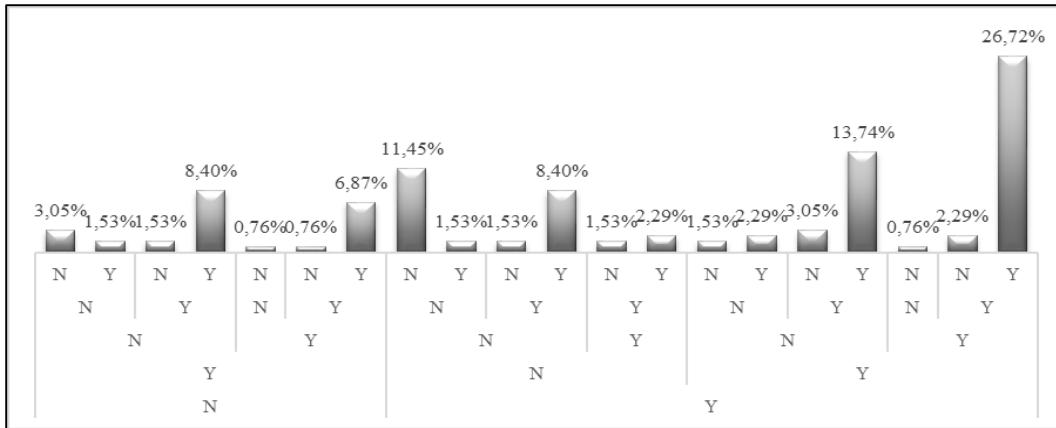


Figure 2: The status of marriage

Figure 3 presents the percentages of the question about "How do you access computers/technology?" The results indicate that 26.72 percent of them access computers/technology with using all of the devices (Wi/Fi, Smartphone, iPad/Tablet, Laptop and Desktop). The 13.74 percent of them stated that they use only Wi/Fi, Smartphone, iPad/Tablet and Desktop; the 11.45 percent of them stated that they use only Desktop; the 8.40 percent of them stated that they use only Wi/Fi, Smartphone, Desktop; another 8.40 percent of them stated that they use only Wi/Fi, Smartphone, iPad/Tablet; the 6.87 percent of them stated that they use Wi/Fi, Smartphone, iPad/Tablet, Laptop; and the others (24.42 percent) preferred different devices for accessing the computers/technology. These results also indicate that 77.1 percent of them are using desktop; 73.3 percent of them are using laptop; 42 percent of them are using iPad/Tablet; 77.1 percent of them are using Smartphone; 71.8 percent of them are using Wi/Fi.



Y=yes, N=no, The top to bottom rows show uses technology of WiFi, Smartphone, iPad/Tablet, Laptop and Desktop respectively (for example the fourth percentage value from left [8,40%] shows Y,Y,N,Y,N for WiFi, Smartphone, iPad/Tablet, Laptop and Desktop respectively)

Figure 3: The status of computers/technology access

According to Figure 4, the 95.42 percent of working women state that they have more than five years' experience in using computers/technology.

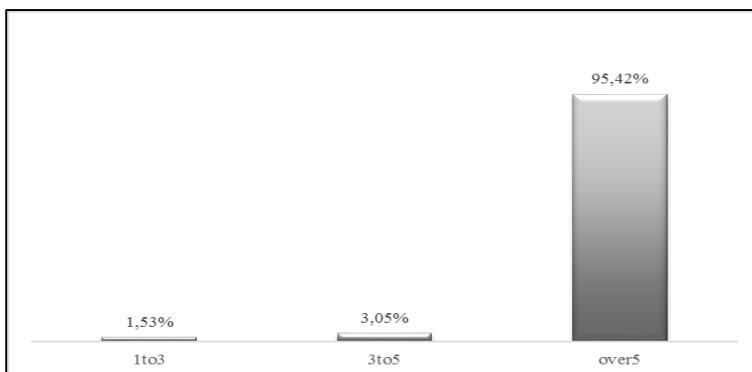
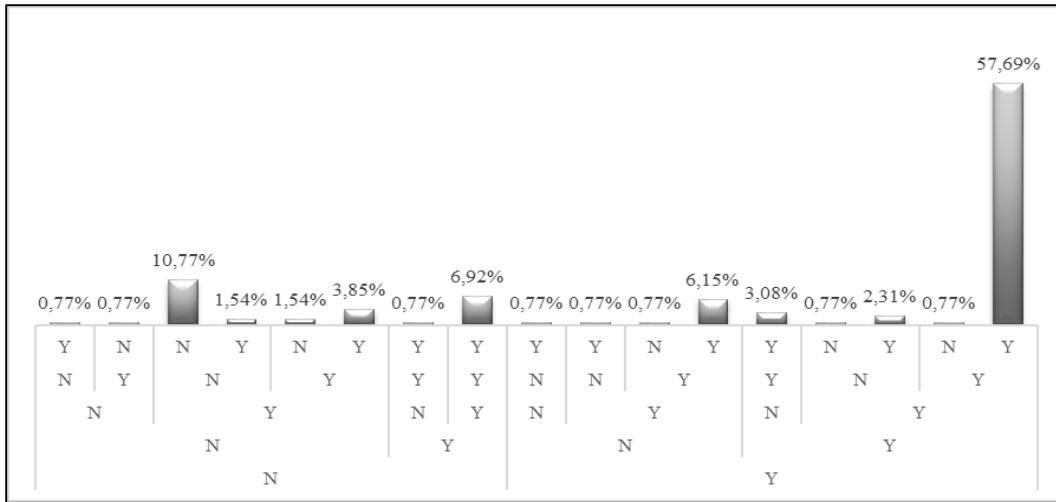


Figure 4: The status of computers/technology experiences

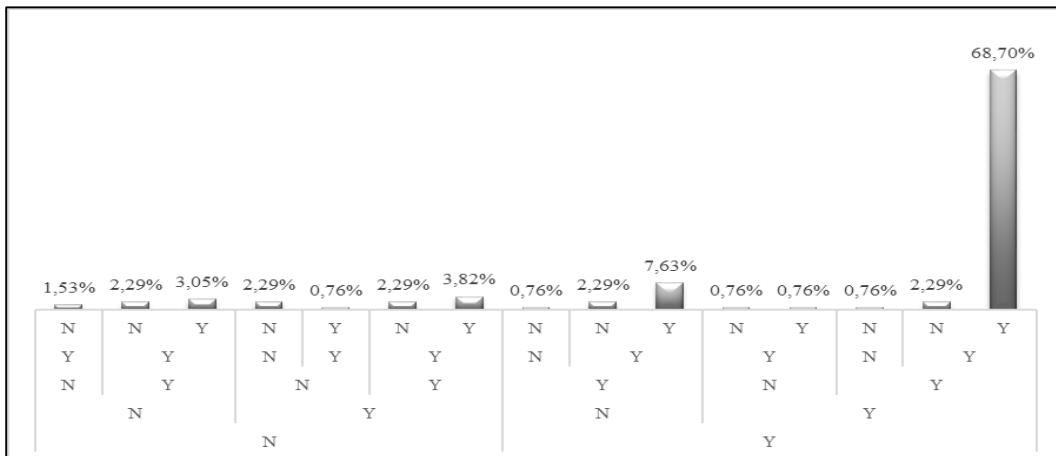
Figure 5 shows the percentages of the intended purposes of computers/technology. The results indicate that 57.69 percent of them use computers/technology for all purposes (Internet, E-mail, Business support, Social Media and Technology/Education); the 10.77 percent of them use computers/technology only for the purpose of Business support; the 6.92 percent of them use computers/technology for the purposes of Internet, E-mail, Business support, Social media; 6.15 percent of them use computers/technology for the purposes of Internet, E-mail, Business support and Technology/Education; the others (18.47 percent) use computers/technology for varied purposes. These results also show that 72.5 percent of them are using for the purpose of Technology/Education; 71.8 percent of them are using for the purpose of Social media; 93.1 percent of them are using for the purpose of Business support; 81.7 percent of them are using for the purpose of E-mail; 84 percent of them are using for the purpose of Internet.



The top to bottom rows show using computers/technology for Internet, E-mail, Business support, Social media and Technology/Education respectively (for example the third percentage value from left [10,77%] shows N,N,Y,N,N for Internet, E-mail, Business support, Social media and Technology/Education respectively)

Figure 5: The status of purposes for using computers/technology

The percentage results of perceived individual benefits from computers/technology are presented in Figure 6. Based on the results, 68.70 percent of them state that they get benefit for all fields (News, Communication, Information, Business Support and Education); the 7.63 percent of them get benefit for the News, Communication, Information and Education; the others (23.67 percent) get benefit for different fields. The results also indicate that 84.7 percent of them get benefit for the News; 96.2 percent of them get benefit for the Communication, 93.9 percent of them get benefit for the Information, 82.4 percent of them get benefit for the Business Support and 84 percent of them get benefit for the Education.



The top to bottom rows show benefits of computers/technology as News, Communication, Information, Business Support and Education respectively (for example first percentage value from right [68,70%] shows Y,Y,Y,Y,Y for News, Communication, Information, Business Support and Education respectively)

Figure 6: The status of benefits of using computers/technology

Figure 7 shows the eight different organizational purposes and the utilization of different social platforms for these purposes. The organizational purposes of Gain Exposure and Create Awareness, Communicate/Collaborate, Gain New Customers, Marketing, and Network and Build Relationship were ranked highest respectively. The social platforms of Facebook, Twitter, and Google+ were ranked highest respectively for fulfilling these organizational purposes. For Gain Exposure and Create Awareness, Communicate/Collaborate, Gain New Customers, and Marketing purposes Facebook and Twitter were ranked highest. For the purpose of Networking and Build Relationship Google+ were ranked highest.

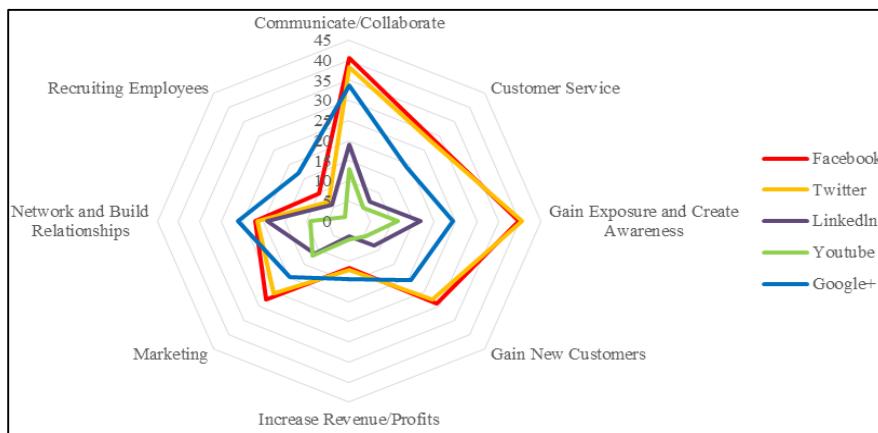


Figure 7: The status of organizational purposes

Participants are also asked if the social technologies empower them or help them to become more successful. The 76.6 percent of working women stated “yes”; the 20.8 percent of them stated that they don’t know, and the 3.2 percent of them stated “no”. Finally we asked participants who said “yes” ($N=92$) are asked to explain how social technologies empower them or help them to become more successful. They emphasized different factors for helping their empowerment or success. Some of the answers were “...it is essential to research and learn the developments of tech and social environment...”, “...finding answers of the questions immediately...”, “...helping self-growth and taking a step further...”, “...technology makes my job easier, you can touch people from distant with tech, education makes you a profession and contributes both your company and self-growth...”, “...accessing the related information easily...”, “...broadening the viewpoints and thinking in different ways...”, “...being one step ahead depends on a new knowledge, and technology makes this process easier...”, “...being able to get in touch with others...”.

All of the comments are reviewed first and the main aspects of contributing factors based on the verbs or sentences are determined. Four general category as *communicating easily, increasing knowledge, saving of time, enhancing individual awareness* are determined. After explaining the purpose of the research, all answers are sent to three different domain experts separately to review and classify in terms of general aspects. They proposed four to nine categories which some of them correspond to our four category. Their some differing classifications are: *getting in touch with others, gathering information, sharing knowledge, increasing individual problem solving and coping, lessening working time*. The differences in classifications from participants’ comments in series of sessions are

discussed mutually until reaching a compromise. Finally, five main categories of contributing factors about ways of empowering women are agreed (see Table-2). The categories were: (1) by enhancing interpersonal communication, (2) by gathering information, (3) by sharing knowledge, (4) by shortening the start-finish time in work, and (5) by increasing individual awareness. According to the results, total of 82.5 percent of the working women mentioned that three factors of interpersonal communication, gathering information and sharing knowledge play significant role in their empowerment or success in the workplace.

Table 2: The classified results about the ways of empowering women

	<i>n</i>	%
1. By enhancing interpersonal communication	30	32.6
2. By gathering information	26	28.2
3. By sharing knowledge	20	21.7
4. By shortening the start-finish time in work	9	9.7
5. By increasing individual awareness	7	7.6

Conclusion

Working women face many disadvantages in the workplace especially at underdeveloped or developing countries. The main purpose of this study is to explore the potential role of ICT's in empowering working women in Turkey. Results indicate that women get personal benefits from ICT's particularly in the areas of news, communication, information, business support and education. Moreover the benefits of ICT's in the fields of interpersonal communication, gathering information and sharing knowledge play significant roles in women's psychological empowerment or success process in Turkey.

The results of the research present that working women access the computers/technology particularly with using Wi-Fi, Smartphone, Laptop and Desktop. The percentage of using iPad/Tablet is relatively very low among working women. This finding may be interpreted that the usage of iPad/Tablet in workplace is relatively not widespread in Turkey.

It is found that almost all working women had experience more than five years in using computers/technology and their main intended purposes are Business support, Internet, E-mail, Technology/Education and Social Media respectively. In addition most of them declared that they receive benefits from computers/technology. The order of priorities of benefits are Communication, Information, News, Education and Business Support.

Some organizational purposes and the utilization of different social platforms for these purposes are also explored. The Gain Exposure and Create Awareness, Communicate/Collaborate, Gain New Customers, Marketing, and Network and Build Relationship are main organizational purposes that are stated to achieve by using social media. The social platforms of Facebook, Twitter, and Google+ are ranked highest respectively for fulfilling these organizational purposes.

Finally, how social technologies empower women or help them to become more successful are examined. Five main contributing factors are found as enhancing interpersonal communication, gathering information, sharing knowledge, shortening the start-finish time

in work, and increasing individual awareness. The enhancing interpersonal communication, gathering information, sharing knowledge are three predominant factors of empowering women in Turkey.

The first limitation of the study is that all the findings should be evaluated with the constraints of cross sectional design and self-report methodology. Second limitation is that the results of open-ended question may be effected by experts' personal opinions and experiences, as three different experts are asked to categorize the answers of open-ended question. Last limitation is that the volunteered sample may not represent the whole Turkish population.

Future studies should focus on both qualitative and quantitative research methods, and should use differentiated samples from different contexts and regions to determine the exact role of ICT's on empowering working women in Turkey.

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Customer (in) Justice, Emotional Labor and Job Satisfaction in the Hospitality Industry

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Abstract

It is a general policy in the hotel industry that all services should be provided in a friendly and professional manner. A pleasant service quality is becoming more important with an increase of competitiveness among hotels and hotel brands. Employees' ability to provide friendly and professional service is highly in demand in the hospitality industry. However, upholding pleasant service as required by a hospitality organization, could be difficult for an employee who is faced with an upset customer. This paper addresses effects of customer (in) justice on hourly wage hotel employees' emotional labor and subsequent effects of emotional labor on employees' job satisfaction. Proposed model is moderated by the effects of intensity of interaction with customer in the back and the front of the house. Structural Equation Modeling (SEM) is proposed with binary moderator front and back of the house employment. Research will be conducted in the upscale/luxury hotels of Central Florida with total sample between 200-400 usable surveys.

Introduction

Service industry is becoming ever more important in the United States. According to Bureau of Labor Statistics in 2022 service industry will consist of 80.9 % in total labor market. Among all of the service industry hospitality and leisure will be fifth largest industry. Creating service industry one of the largest job providers with 90% of employees being involved in non-managerial positions. Customer service as a main point of interaction between organization and customer at a time of service consumption and is becoming one of the most important tools to attract and retain customers. Making it even more important for industry leaders to review procedures at all points of interaction between customer and service provider. In consequence putting even more pressure on employees to provide friendly, courteous service or so called "service with a smile" at all times, making friendly service fundamental to competitiveness in hospitality industry. Process of regulating positive emotions for an organization is called Emotional Labor (EL) (Grandey, 2000). Articles and blogs herald need for exceptional, friendly service at hotels and airlines, frequently praising great service and condemning poor service experiences. Academic researchers claim smile has direct effect on customer satisfaction (Grandy et al., 2005). Although, such commodity is highly in demand by hospitality industry as tool of competitiveness, first theoretical concept and attempt to understand dynamics of front line employee emotional work, was introduced only in 1983, by Hochschild. She argued that "...in the public world of work, it is often part of an individual's job to accept uneven exchanges, to be treated with disrespect or anger by a client, all while closeting in to fantasy anger one would like to respond with." (Hochschild, 1983, p.83). Majority of the subsequent research was mainly focused on the consequences of emotional labor (Hülsheger and Schewe, 2011), but there is very limited research in understanding of

psychological antecedents of EL (Spencer and Rupp, 2009). This study attempts to fill the gap and examines two dimensions of organizational justice as an antecedent of EL which reflects a perceived fairness of organizational treatment by employees and effects of EL on hourly wage employees' job satisfaction. Specifically this study is looking at difference in perception of customer (in) justice by the hourly wage employees in the back of the house and front of the house due to difference in frequency of interaction. A theoretical proposition by Morris and Feldman (1996) indicated that the longer employees need to maintain their façade of positive and professional behavior, the harder it will be to perform and maintain the required attitude. On another hand, the fairness theory suggests that the employees' perception of fairness received from customer impacts levels of EL through emotional and cognitive mechanisms (Weiss and Cropanzano, 1996).

Thus, based on the theoretical proposition of Morris and Feldman (1996) and the fairness theory of (Weiss and Cropanzano, 1996) this study will attempt to expand research of EL and empirically test effects of perceived customer (in) justice on employees EL and job satisfaction based on frequency of interaction with customers.

Literature review

Emotional Labor

Emotional Labor (EL) was introduced into literature by Hochschild (1983) in her well known book "The managed Heart", which put beginnings of academic research on accepted term of "service with the smile". Hochschild argued, given that employees receive salary for friendly emotions then it is acceptable to call this act as a labor and subsequently she coined term EL. Since introduction by Hochschild in 1983 of EL, concept was approached by Sutton and Rafaeli (1987). Authors in their work looked at the emotions as a part of the work role. They believed that a service and an emotional work provided by employee plays an important role not only in customer's perception of service, but also "encore gains" that have a long term gains for an organization such as gaining a repeat customer or positive word of mouth.

Ashforth and Humphrey (1993) studied EL more as an observed variable that can be trained and buffered and manipulated. Unlike Hochschild who emphasized feelings and their negative effect on employees due to the constant acting and manipulation of the feelings. Ashworth and Humphrey (1993) had downplayed nuances and depth of workers emotions in the organizational setting and its negative consequences. They looked at emotional labor as a concept of task effectiveness with believe that emotions once trained become effortless to use and should not become source of stress.

Morris and Feldman (1996) in their research of EL proposed four dimensions of EL. Specifically, a frequency of an emotional display, a variety of an emotional display, attentiveness to required display rules and emotional dissonance. Authors approached EL from interactional approach, where emotions are more determined and expressed through a social environment, and are regulated due to an organizational expectation from the employees. Key antecedents of EL were frequency, attentiveness and variety. On the other

hand consequences of EL were some somewhat consistent with Hochschild (1983) work and lead to emotional exhaustion and job dissatisfaction.

Grandey (2000) added to body of literature on EL theoretical framework. Author theorized that EL is induced not only by interactional expectations as Morris and Feldman (1996) and feelings as Hochschild (1983), but also with emotional events, putting big emphasis on surface acting and deep acting as part of EL. Where former where employees display insincere emotions and later were employee feels positive emotions by thinking of positive event and then translating those emotions onto a customer. Author, proposed that individual factors such as gender, different types of expressivity and organizational factors such as job autonomy, supervisor or employee support influence degree of emotional labor use and its subsequent negative consequences on organizational and individual well-being.

While there was much attention given to EL in the organizational research, there is little research done on EL in hospitality (Chu, 2002). Since, EL is relatively new topic in the hospitality industry there is a scarcity of research in the field. While some research in the service industry linked EL with job performance, job satisfaction and service quality (Morris and Feldman, 1996; Grandey, 2000; Ashworth and Humphrey, 1995; Hulsheger and Schewe, 2011) and others. Most of the research published in the hospitality industry is not only limited but also mainly qualitative (Kim, 2008). Although it is fiercely debated what constitutes service quality, it is generally agreed that quality of customer service is a pinnacle of hospitality and tourism industry. It is customer-contact employees that are mainly responsible for much of the success or failure in the organization (Davidoff, 1994). Well known articles of Siguaw, Enz and Namashiwayam (2000) about hospitality best practices suggests that quality of service is monumental in determining customer satisfaction and loyalty.

Interactional Justice

Interactional Justice (IJ) was introduced into the academic world by Bias and Moan in 1986. The idea of IJ came to Bias by observing PhD student complain about unfairness in projects or rudeness in behavior of the university faculty members. Author noticed that although it is a common theme for PhD students to complain about faculty, interpersonal unfairness was distinct from that of structured process. Interactional justice was formally introduced in the following passage:

“Concerns about fairness of interpersonal communication are representative of a set of issues dealing with what we refer to as interactional justice. By interactional justice we mean that people are sensitive to the quality of interpersonal treatment they receive during the enactment of organizational procedures” (Bies & Moag, 1986 p.44).

Bias and Moag (1986) in their study looked at interviews of job candidates and their treatment by recruiters. Authors found four distinct categories that govern interpersonal fairness: Truthfulness, justification, respect, and propriety with truthfulness being one of the most important factor. Greenberg, Bies, and Eskew (1991) argued that not only structure but the manner in which rules are implemented is very important. Research was extended by Folger and Bias (1989) seven key managerial responsibilities: giving adequate

consideration of employees' viewpoints, suppressing bias, applying decision-making criteria consistently across employees, providing timely feedback to employees after decision, providing justification for the decision, being truthful in communication, and treating employees with courtesy and civility (p. 81).

Authors stressed the importance of implementation on decision making procedures rather than its structure, where managerial responsibilities are indeed much broader than a scope of written rules. Already several decades ago, Walton (1985) argued that managerial authority is no longer granted, but must be earned through manner in which authority is exercised. Conversely, Bias (1986) found importance of timely feedback on a decision for judgment of fairness by an employee from higher authority. Sheppard and Lewicki (1987) found that managers believe that prompt decision was positively associated with fairness of the decision, supported argument of Bias (1986). IJ captures Bias and Moag (1986) found that courtesy and civility was very important in fairness evaluation by employees in decision-making process. Although research on justice effects was becoming common, grasp on full concept of IJ did not exist.

Moorman (1991) conceptualized IJ as a construct separate from PJ he was first to create an empirical measure of IJ using conceptualization proposed Folger and Bies (1989). IJ consists of Interpersonal Justice (IPJ) and Informational justice (IFJ). Colquitt (2001) in his instrumental work separated nuance of informational and interpersonal justice reflecting definitions of Bies and Montag (1986). IPJ is "...degree of which those in authority treat individuals with dignity respect and politeness" (Spencer & Rupp, 2009). IFJ is communication between those of authority is clear, candid and sufficient (Greenberg, 1993; Spencer and Rupp, 2009).

Empirical research on IJ in service area is sparse. Lovelock (1994) coined term "jaycustomers" who deliberately disrupt service that effects other customers or organization. Harlos and Pinder (2000) in their work on Emotions and Injustice in the workplace stated that employees are intensely aware of injustice. "...within context of organizational injustice, emotions are very much more commonly related to injustice experiences than either mood or dispositions" (p.257). Moreover, emotions were easily recalled regardless of time past Harlos and Pinder (2000). Interactional injustice had distinct dimensions: intimidations, abandonment, inconsistency, degradation, criticism, inaccessibility, surveillance and manipulation (Harlos and Pinder, 1999) Granday, Dickter, & Sin (2004) found that employee in call centers get experience customer injustice about 10 times a day. Similarly, Karen and Craig (2000) indicated that an injustice in the workplace from higher authority to subordinates is very frequent and has lasting negative effects on employees' performance and health. Harboring feelings of fear and anger. Concept of an interactional injustice was originally introduced into the area of customer service by Rupp and Spencer (2006) and introduced empirically concept of Customer Injustice (CIJ) did an experimental design on college students and found positive effects of CIJ on EL. Study was followed by Spencer and Rupp (2009) within an organizational setting and found that customer injustice toward employee had positive effect on EL of co-worker. Lam and Chen (2012) studied effects of IJ on emotions and subsequently two types of EL such as the surface acting and the deep acting. Authors found negative effect

between IJ (supervisory support) and negative emotions of employees. Skarlicki, Jaarsveld and Walker (2008) found significant correlation between customer injustice and service sabotage in call center employees. Effect between injustice and sabotage was significantly moderated by the moral of employees. Authors followed on work of Spence and Rupp (2006; 2009) created scale for specific to customer injustice in the service organization. Grandey, Kem and Fronte (2007) found that verbal abuse was more frequent from customers rather than coworkers or management.

Intensity of Interaction

A proposition about the quantity of an emotional interaction was originally proposed by Morris & Feldman (1996) based on the research done by DePaulo (1992) and Saarni & VonSalisch (1993). The proposition stipulated that the longer employees need to maintain their façade of positive and professional behavior, the harder it will be to perform and maintain the required attitude. On the other hand, the more time an employee spends out of customer sight the, less maintenance will be required of the facial emotions.

Although, specific characteristics of front of the house and the back of the house has not been empirically tested, theoretical evidence from Morris and Feldman (1996) suggests that dynamics of the model could be different for employees in the back of the house than those in the a front of the house.

Methodology

Data Collection

This study is limited to the hospitality industry and the target of the population are hourly-wage employees that work for hotels in Central Florida, USA. A self-reported questionnaire will utilized to survey employees of upscale to luxury hotels in the Central Florida.

For purposes of this study, structural equation modeling (SEM) is chosen. Hair, Black, Babin & Anderson (2010) argued that a minimum number of observation reflects ratio is 5:1 and a preferred ratio is 15: 1. Procedures vary based on the complexity and procedures of a model. A sample size no less than 200 observations is recommended for SEM analysis. However, if a sample is larger than 400 observations, SEM modeling becomes more sensitive, making goodness-of-fit measurements poor. As a result, a sample between 200 and 400 is suggested (Hair et al., 2010). Similarly, Kline (2005) suggested that sample size bigger than 200 is large enough to generate significant results and provide a sound basis for estimation.

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The Role of Increased Emotional Intelligence and Individual's Preference for Applying More Adaptive Decision Making Strategies

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Abstract

This research seeks to evaluate an individual's preference for more adaptive decision making strategies to address daily routine situations after practicing Emotional Intelligence (EI) self-awareness techniques. Therefore, this study examines the relationship of individual's personality, EI, and decision making styles (DM) as a predictor for selecting adaptive decision making that yields higher satisfaction outcomes. A large body of research supports that when EI knowledge is integrated during cognitive appraisal it yields better DM styles. An exploratory study investigates (n=95) students with no EI training versus students with EI training. Students with higher EI self-awareness skills use more adaptive DM styles regardless of situation or time pressures. Individuals that practice higher EI self-awareness interpret broader contextual meaning for a given situation that retrieves expanded choices during cognitive appraisal processing that may offer improved outcomes toward a desired goal. A high (80%) African-American sampling of students offers potential cultural/gender factors that may influence DM strategies. Extraversion was significantly higher in males versus female respondents. Prior research results were replicated in the study identifying distinct personality scales as predictors of DM styles.

Keywords: EI, self-awareness, adaptive decision making, cognitive appraisal, personality

Introduction

Daily people face a diverse set of situations to solve by activating emotions and cognitive appraisal strategies that triggers a specific behavior response toward a broad-range of situations that are perceived as complex, risky, and time constrained. Unfortunately, not all decision strategies lead to positive outcomes. Therefore, a meta-analysis of the state of "emotional intelligence" constructs reveals a need to identifying more EI influential components (Ybarra, Kross, and Sanchez-Burks, 2014) that increases positive outcomes. As such, gaps exist in how to best train people to increase their EI predictability (Ybarra, Kross, Lee, Zhao, Dougherty, and Sanchez-Burks, 2013). These authors stress the EI dynamics, the role, and the significance of emotional intelligence as evidence of improving people's everyday well-being. There is sufficient evidence in prior EI research findings (e.g., Mayer, Salovey, and Caruso, 2002; Marcum, 2013) that people use emotions and cognitive processing in responding to a variety of daily situations. However the discrepancy lies in defining and understanding the encompassing interrelated role of various distinct EI constructs that may improve or erode predictability in DM outcomes.

While the body of EI research grows, so does the need to build on, seek out, and identify new EI influencers shaping new theories and models for expanding people's choices toward solving a spectrum of situations. Raising EI self-awareness to help people gain insight into how they assess choices and derive decisions is at the heart of gaining mainstream acceptance and adoption to EI's value to individuals and society. Central to this research is to explore further evidence of the role EI influencers may pose on changing people's improved outcomes with and without perceived EI competencies.

Literature Review

The literature review focuses on the distinct and interrelated roles of emotional intelligence, personality, and decision making styles as a means of predicting optimal decision making outcome satisfaction drawing on (cognitive psychology, emotions and response, neuroscience, situation and social influence, and economic predictors). It begins with EI.

Emotional Intelligence (EI). For this study, EI is defined as a “set of abilities (verbal and nonverbal) that enable a person to generate, recognize, express, understand, and evaluate their own, and others, emotions in order to guide thinking and action that successfully copes with environmental demands and pressures” (Van Rooy & Viswesvaran, 2004, p.72). Long-term interests and study of people’s emotional intelligence, its meaning, constructs, benefits, and direction appears to thrive in a growing set of progressive academic theories, models, assessments, and findings (Gardner, 1983; Goleman, 1995, 2007; Bar-On, 2000; Mayer, Salovey, and Caruso, 2002; Sparrow and Knight, 2006; Taksic and Mohoric, 2007; Ehring, Tuschen-Caffier, Scnulle, Fisher, and Gross, 2010; Sontos and Neto, 2014).

Also, earlier EI predictor models (e.g., Mayer, Salovey, Caruso (MSCEIT), 2002) provides a foundation of emotion and thought constructs yet recent studies explore new moderators affecting EI outcomes (Ybarra, et al, 2014). To illustrate, MSCEIT defines 4-distinct branches; 3 related to emotions and 1 to thinking. In contrast, Ybarra, et al., emphasizes the psychological processing in motivational, contextual, and dynamic components that may influence decision making even when EI competencies are high in a person. These EI models (Table 1) identify the distinct links yet unique roles of emotions and cognitive.

Table 1. Comparison MSCEIT with extended Psychological Processing EI influencers:

Mayer- Salovey- Caruso, Emotional Intelligence Test (MSCEIT) Four Branches of EI	Motivated, Contextual, and Dynamic Model of Emotional Intelligence (Psychological Processing)
Perceiving Emotions: The ability to perceive emotions in oneself and others as well as objects, art, stories, music, and other stimuli;	Dual Process Principles: Captures automatic and deliberate processing. How EI is influenced when low in cognitive resources, cognitively demand context, or cognitive fatigue.
Facilitating Thought: The ability to generate, use, and feel emotion as necessary to communicate feelings or employ them in other cognitive processes;	Motivational Principles: Highlights the importance of goals for processing social-emotional information. While EI emotion recognition and control are high, lack of discrete goal may reduce motivation to action.
Understanding Emotions: The ability to understand emotional information, to understand how emotions combine and progress through relationship transitions, and to appreciate such emotional meanings;	Person X situation Principles: Delineate how context influences the way people think, feel, and behave. Alternate goals and beliefs prime and inhibit sufficient emotion-cues to activate EI relevancy knowledge and beliefs, even with high EI assessment.
Managing Emotions: The ability to be open to feelings, and to modulate them in oneself and others so as to promote personal understand and growth.	
Mayer, J.D., Salovey, P., & Caruso, D.R. (2002). Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), Toronto, Ontario: Multi-Health Systems, Inc.	Ybarra, O., Kross, E., and Sanchez-Burks, J. (2014). Distinct yet interrelated in EI-related outcomes.

Cognition, Emotions, and Decision Making. How do emotions impact our judgment, choices, and decision making? Are all emotions equal in decision-making? Drawing on cognition and emotion research (e.g., Chari, 2008; Lerner and Keltner, D, 2000; Gutnik, Hakimzada, Yoskowitz, and Patel, 2006; Smith and Ellsworth, 1985) we identify how emotions can impact our judgment, choices, and decision making since emotion recognition and regulation are the cornerstones of EI competencies. Distinct emotions are identified as more dominant influencers for specific outcomes even when EI is high. For example, Lerner and Keltner tested two social moderators; anger and fear and found activation occurring consistent with the original cognitive-appraisal dimension of the emotion and then re-applied in future judgments of a new event or object (2000).

Therefore, some emotions may have greater influence in choice and decision making outcomes regardless of a person's high emotion awareness, a low emotion regulation may occur. This reveals that cognitive appraisal tendencies that are activated in distinct emotions automatically guide future perceptions and judgments efficiently rather than for an EI desired goal. To illustrate, consistent with appraisal-tendency theory, "fear and anger relate differently in ways to risk perception; fearful people made pessimistic judgments of future events whereas angry people made optimistic judgment" (Lerner and Keltner, p.472). Negative emotions are then predicted to influence varying judgments in highly differentiated ways that narrows positive choices during decision making.

Similarly, cognitive selection of emotion tagging may occur as a method to recall select experiences (Chari, 2008). These dispositional emotions are positive or negative, as they represent the feeling and attitude in our reaction toward or against a specific (person, place, and/or thing) situation (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980). Emotions have “powerful influence on how we would behave or react when faced with a broadly similar situation in the future, as the limbic system is intimately involved in the process” (Chari, p.164). Here we recognize that while self-awareness in a person helps, the ability to self-regulate certain emotions when paired with prior feelings and events may lead to conflicting automatic responses that yield varying, unpredicted and undesirable outcomes.

Other comprehensive models related to emotions toward decision making draw upon neuroeconomic research and theories (e.g., Gutnik, Hakimzada, Yoskowitz, and Patel, 2006; Frank, Cohen, and Sanfey, 2009; You and Wang, 2013). In Gutnik, et al, model, emotions are accounted as high contributors of decision making performance yet within the framework of psychology, economics, and neuroscience. A classical decision making model (CDT) in psychology and economics identifies goal alignment as needed for optimal outcomes that was also identified in Ybarra, et al dual process principle. It reinforces a neuroscience perspective of decision making that involves a highly complex and interconnected circuitry able to override people’s desired outcome. Therefore, multi-model sensory input, prior experience conditioning, sensory and emotion responses, and anticipation of future goals may narrow choices. While inputs are distinct, they are also interdependent within cognitive and emotion relationships that compete within an individual toward seeking (unconsciously or consciously) for final decision maker.

Other cognitive-appraisal dimensions were found as related to underlying patterns of distinct emotions as rich areas for continuing EI study (e.g., Smith and Ellsworth, 1985; certainty, pleasantness, attentional activity, control, anticipated effort, and responsibility).

These provide further evidence that all emotions do not serve equal roles and weighting and must be considered. A person’s EI self-awareness skills helps to understand and recognize all aspects of distinct emotions toward regulating a desirable outcome goal.

Personality, EI Traits, and Decision Making Styles. Webster dictionary defines personality as a set of emotional attributes (e.g., energy, friendly, humor) that accounts for the difference in people’s behavior. While personality is recognized as unique for each person, it integrates or competes with other decision factors (e.g., cognitive and emotions) resulting in varied responses and outcomes. As such, EI traits (BarOn Emotional Quotient inventory, 2000) are believed to reside in lower levels of personality hierarchies (Petrides, 2001). EI traits consist of a broad range of emotional self-perceptions and behavioral dispositions developed over a person’s lifetime (nurture) and interact with personality (nature). Will a person’s friendly personality influence greater EI self-regulation in DM?

A comprehensive study sampling 289 university students, Perez-Gonzalez and Sanchez-Ruiz (2014) combined a set of EI trait and personality factors and tested for a relationship among these dimensions. EI traits emerged as broad personality traits that act as proxies for personality. In the highest General Five Personality (GFP) loadings, top EI traits were

well-being and emotionality. “Individuals scoring high on GFP tend to see the glass half full, are self-confident, and generally satisfied with their lives” (p.57). As such, individuals who can perceive their emotions and those of others, are more effective in communicating, and will experience more fulfilling personal relationships.

Avsec (2012) investigated whether EI individuals use more adaptive decision making styles. A sampling of 454 respondents completed a survey including (EI, personality, and decision making style) factors. Results revealed traits of EI explaining up to 13% of the variance of the decision making styles. Higher EI was positively linked with frequent use of (intuitive and rational) decision making versus lower use of (dependent and avoidant) decision making styles.

Identification of affective, behavioral, and cognitive representation in the Big 5 personality traits (Pytlak Zillig, Hemenover, and Dienstbier, 2002) helps to clarify what the personality inventory really measures. Using content analysis, raters were asked to assess a spectrum of personality and inventories (e.g., NEO-PI-R, ATD, IASR-B5, and BFI) and trait (N, E, O, A, C) factors. Results show that overall Consciousness is dominated by behavior (68%); Neuroticism is dominated by affective items (70%); Openness included more cognitive; Extraversion is dominated by behavior (53%) and affect (38%); and Agreeableness in BFI for behavioral. Pytlak, et al., detects the interlocking roles of personality traits, affect, behavior, and cognition. Applied to EI, a neuroticism personality is likely to experiences higher unstable thoughts and behaviors in emotional stress, lower emotional regulation control that lowers optimal decision making.

Another study tests the role of Big 5 personality types as predictors of DM (Ruiz and Batool, 2012). A broad sampling of 300 students (equally 50% males and females) was selected from varying Islamabad universities. Big Five Personality Types (extraversion, openness to experience, agreeableness, conscientiousness, and neuroticism) were predictors on outcome variables of the Five Decision Making Styles (rational, intuitive, dependent avoidance, and spontaneous). Personality types accounted for 15.4% to 28.1% variance in decision making styles. Highlights of Ruiz and Batool, 2012 findings follow:

1. **Extraversion** positively predicted **Intuitive and Spontaneous** DM style.
2. **Openness to experience** positively predicted **Intuitive** DM style.
3. **Agreeableness** positively predicted **Dependent** DM style.
4. **Conscientiousness** positively predicted **Rational** DM style.
5. **Neuroticism** positively predicted **Avoidant** DM style.

Decision Making. Why do people given similar options select different choices in decision making? In cognitive appraisal theories, people make assumptions linked to prior experiences and judgments. Therefore, selection bias may occur that ignores certain attributes (present yet viewed as not important) during cognitive appraisal processing. Efficiencies are derived where pattern recognition along with emotional tagging assists in delivering high-volume and rapid decision for most situations, e.g., utility bias (Char, 2008). The “limbic system trumps the frontal lobe in decision making” (p.164). Urgency to make a decision often occurs because of limited perceived bandwidth (Sunstein, 2014).

Strategy selection cue-based decision making divulges people use ranges of heuristics, rational, and compensatory strategies to perform a multiple-cue judgment task (Bryant, 2014). People are sensitive to the amount of cognitive effort required to employ decision strategies. To test this theory, Bryant conducted a dual-task methodology to investigate whether participants' preferences for heuristic versus compensatory decision strategies can be altered by increasing the cognitive demands (e.g. time constraints) of the task. Drawing upon a contingency model, it is assumed that people's strategy selections are based on an implicit tradeoff between the benefits and costs of strategies within the context of the specific decision tasks. The motivation factors are to choose a strategy that promises a beneficial decision outcome while minimizing the cost in term of info search, processing, and effort. Therefore, "accuracy and cognitive effort are key factors in the selection of a decision strategy, it follows that any factor that changes the relative costs and/or benefits associated with a decision task can alter peoples' preferences for strategies" (Bryant, p98). Time pressure is predicted to induce people to adopt a heuristic strategy which typically is performed faster than a compensatory strategy. Likewise, increasing the cost of searching for cue information, in terms of monetary cost or processing effort was found to induce greater use of heuristic rather than compensatory strategies (Broder, 2000, 2003).

From an emotional perspective, Chari (2008) points to the pitfalls of emotionally led decision making and suggests ways to enhance the quality of decision making. Decision making is seen as a complex process involving a number of variables, and is intrinsically buffeted by cognitive biases. Two types of decision making are examined; instinctive or intuitive (adaptive) decision making as predominant types used compared to deliberative forms of conscious decision making (less used). Intuitive are preferred patterns of thinking and behavior, especially as cognitive abilities develop, and explained as a integration of genetic and life experience factors. People high in associate barriers favor the use of familiar and efficient paths to problem solve, ignoring a broader range of option appraisals. In comparison, people with high EI skills may prefer adaptive decision-making styles when controlling for other influencers such as personality (Avsec, 2012).

Decision making may be complex whether threatening or not, a number of possible outcomes exist (Thunholm, 2004). When perceived threats of survival (emotional in personal or professional experiences) occur, it appears to trigger automatic choices versus deliberative reasoning process. People prefer short-circuiting, energy efficient, and rapid processing of intuitive decision making that often dominates deliberative decision making. So, practicing EI may help to counter cognitive efficiencies. Yet, high intelligence does not protect against poor decision making and is a multi-dimensional concept within EI (Goleman, 2006). Early on, Ackoff (1989) explained a distinction between information, knowledge, understanding, and wisdom as a hierarchical process, an integral part of decision making. Decision making was theorized as depending on the processing of data and information to answer the questions of who, what, where, when. In contrast, knowledge was viewed as a role of organizing various pieces of information for relevancy, reaching a decision, or changing them. Recognizing, developing, and refining intuitive inputs at a conscious level in DM helps reduce cognitive bias influences (Chari, 2008).

Predicting decision making studies reveal themes as highly individualized and deeply

reinforced with nature/nurture components shaping over one's lifetime. Yet, studies in age, gender, and cultural differences vary (e.g., Baiocco, Laghi, and D'Alessio, 2009; Lizarraga, Baquedano, and Cardelle-Elawar, 2007; Mata, Josef, and Samanez-Larkin, 2011; Worthy, Gorlick, Pacheco, Schnyer, and Todd, 2011). Also, individual's internal perceptions in decision making (time pressures, Sarmany-Schuller, 2010 and negative stress response, physiological, Thunholm, 2008) denote unintentional parts of decision making.

Summary

The literature review supports a position that decision making is comprised of a celestial of factors. Some factors range from personality traits, emotion automatic responses, cognitive appraisal processing, neurological physical sensors, age, gender, culture and unique situations (e.g., time and risk). A recurring theme is that a person high in EI competencies (self-awareness and self-regulation) does not always predict or lead to desired goal-directed results. The interaction and weighted dominance of varying factors (e.g., primal triggered physiological responses) illustrates the rigidity in perceived threat for triggering automatic survival instincts in decision making. Therefore, a person practicing EI may successfully manage some, yet not all of the DM desired goal outcomes.

Methodology

Three research questions were constructed to guide this new study.

1. Is there a relationship between personality traits, emotional intelligence, and decision making styles that helps predict higher decision making outcome satisfaction?
2. Does a student with high emotional intelligence apply more adaptive (intuitive) decision making styles regardless of a given situation or during perceived time pressures?
3. Does a student's gender and/or cultural differences account for varied decision making?

Sample

A convenience sample of undergraduate and graduate students (n=95) that had no EI training, prior EI training, or were enrolled in an EI training course were selected for this study. The students were all currently enrolled or alumni students from a Florida Historical Black College (HBCU) located in central Florida. Only enrolled students were offered course bonus points for completing the electronic survey.

Data collection

The survey was conducted using Qualtrics Survey Software. Students were offered an opportunity to complete the online survey during February 2015 – April 2015. The data collected was then exported into SPSS and evaluated for completeness. Statistical runs using descriptive, cross-tab, individual t-test, and regression analysis guided the findings.

Data Source

A set of questions that were derived from previous decision making assessment factors **Personality (Big Five Inventory)** (BFI) John, Donahue and Kentle, 1991); **Emotional Intelligence Competencies** (ESCI-45 Taksic, 2000), and **General Decision Making**

Styles (GDMS Scott and Bruce, 1995) provided the basis for the survey content. Four new questions were added to support the survey scope along with demographic questions to assess potential group differences (e.g., gender) in decision making outcome satisfaction.

Findings

- Respondents slightly more males (54%) compared to females (46%) (Table 1).
- African-American was (80%) of total respondent race classification (Table 2).
- Overall, respondents feel EI practices lead to better decision making regardless of varied time pressures (91%) or varied situations (92%) (Table 3&4).
- No significant mean difference gender EI Competencies/DM scales (Tables 5&6).
- Significantly higher mean (3.3) males vs. (3.1) females; Extraversion (Table 7).
- ***Openness to experience** positively predicted **Intuitive DM Style**.
- ***Agreeableness** positively predicted **Rational DM style**.
- ***Neuroticism** positively predicted **Avoidant DM style**. (*Significant@0.01)

Table 1: Gender

Gender	Percent
Male	53.7
Female	46.3
Total	100

Table 2: Race Distribution

Race	Percent
Caucasian	4.2
African American	80
Hispanic	7.4
Asian	3.2
Other	5.3
Total	100

Table 3: EI Practices and Decision Making: Perceived Time Pressures

		Percent
	Yes	90.5
	No	3.2
	Total	93.7
Missing	System	6.3
Total		100

Table 4: EI Practices and Decision Making: Varied Situations

		Percent
	Yes	91.6
	No	2.1
	Total	93.7
Missing	System	6.3
Total		100

Table 5: Independent Sample T-test: Emotional Competency Scales

	t	df	Sig. (2-tailed)
Manage and Regulate	0.678	87	0.5
Express and Label	0.359	87	0.72
Perceive and Understand	0.509	87	0.612

Table 6: Independent Sample T-test: Decision Making Scales

	t	df	Sig. (2-tailed)
Intuitive	1.263	92	.210
Rational	-1.246	92	.216
Spontaneous	-.275	92	.784
Dependent	.908	92	.366
Avoidance	-1.155	92	.251

Table 7: Independent Samples T-test: Personality Scales

	t	df	Sig. (2-tailed)
Extraversion	2.273	88	.025
Agreeableness	-.968	88	.336
Conscientiousness	-.463	88	.644
Neuroticism	-1.287	88	.201

Conclusions and Implications

This study findings is limited to a convenience sampling of university students and alumni. Also, bias is always a factor to consider when respondents provide self-reporting feedback. Still, the large proportion of African-American respondents (80%) provides rich data for comparison to prior research and future DM studies.

To illustrate, this study repeated some of Ruiz and Batool (2016) results, also university students yet different culture (Islamabad). Openness to experience positively predicted intuitive DM style and neuroticism positively predicted avoidant DM style. In contrast, some personality scales did not map (e.g., agreeableness positively predicted rational DM style while Ruiz and Batool found agreeableness was positively predicted to dependent DM style). Extraversion positively predicted intuitive and spontaneous DM style in Ruiz and Batool yet not in this study. Although, a significant higher mean difference in males versus females for extraversion was identified after running a t-test analysis.

Respondents in this new study feel EI practices lead to better decision making regardless of perceived time pressures (91%) or varied situations (92%). This supports prior research (e.g., Avsec, 2012, adaptive DM styles; Lerner and Keltner, 2000, optimistic cognitive appraisal; Chari, 2008, self-awareness; Perez-Gonzalez and Sanchez-Ruiz, 2014, others emotion in effective communication).

Decision making under pressure and time constraints is a concern for people in all situations, regardless of cultural diversities. As such, how personality, EI, and decision making style interplay offers valuable information for educators for course development

and training workshops. Community leaders benefit by modeling EI for better decision making. The authors believe this study adds to the extensive DM body of knowledge.

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Inventory of U.S. on Campus Hotels Used in the Curriculum

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Abstract

This on-going research project examines how experiential education is used in hospitality higher education. The results of a survey of International Council of Hotel, Restaurant and Institutional Educators (ICHRIE) members will identify and inventory hotels on campus in the U.S. used in hospitality programs as authentic experiences to enrich the curriculum. In an effort to supplement the survey results, the authors have conducted a search of many post-secondary hospitality program websites. A working inventory of on campus hotels associated with hospitality programs in the U.S. is included.

Keywords: hospitality higher education, experiential learning, curriculum, on campus hotels, practical experience, student learning outcomes

Introduction

Hospitality management programs are inextricably tied to the demands of the hospitality industry for obvious reasons. Preparing students for their career has always been a principal focus of this discipline. Hospitality management curricula in higher education is focused pragmatically on being current and connected to the industry for placement of graduates; but, more importantly, we focus on preparing our students to be well equipped for success (Foucar-Szocki & Bolsing, 1999; Goodman & Sprague, 1991). The industry highly values practical experience. Most hospitality management programs have recognized the need for “hands on” learning in many forms. Internships are required at many hospitality programs, as are practical experiences in and out of the classroom. One of the most visible tools for this practical experience is an on-campus hotel connected to the curriculum and used as a laboratory. This research will identify those undergraduate programs that have a hotel as a part of the curriculum and will begin to classify the current distinct models of operation and curricular involvement.

Research revealed that no listing of on campus hotels in the U.S. was available. Preliminary research identified a gap in the literature. Little information about these hotels exists other than in isolated case studies (LeBruto & Murray, 1994; Tse, 2012; Withiam, 1994). In addition, recently there has been some interest in developing hotels on college and university campuses in the U.S.

Colleges and universities are among the most rooted institutions in their given communities, stabilizing forces, sometimes going back hundreds of years. They also directly and indirectly generate economic activity through business

surrounding academic and research programs, conventions and seminars, and student admissions and graduation. (Brophy, 2015, para.1)

It stands to reason that more informed curricular decisions regarding these hotels will come from examining how these hotels are currently being utilized. An inventory of the distinctive features of each program will allow for some comparison and conclusions about the decision drivers for these operations on campus. This study is significant in that it will inform the stakeholders about the choices that have been made in other programs. The research further seeks to explore the connection of learning theory to curricular and operational choices specific to these operations.

- H₁ There is no single model of pedagogy or operation for an On-Campus Hotel associated with a hospitality management curriculum.
- H₀ On-Campus Hotels associated with a Hospitality Management Curriculum are rather similar and are used in similar ways to affect student learning outcomes.

Literature Review

Experiential learning refers to the process of learning from experience and requires students to engage in learning activities in real-world environments (Dewey, 1938). Although experiential learning has been positioned as the opposite or alternative to a traditional classroom, Dewey (1938) insisted that education is not an “either/or” proposition. Experiential learning refers to processes where the learner is an active participant. Rather than sitting in a classroom and listening to a lecture, the instructor has to create learning opportunities for the students where their participation is required in one form or another. Richardson and Kleiner (1992) acknowledge that this is more challenging for instructors with regard to design, implementation and evaluation. This is much more time consuming for instructors, but can be significantly more rewarding than lectures for students and instructors.

Reflection is a critical component in the experiential learning process, as we reflect on our experiences, they become reinforced and the lesson is learned again. “We believe that processing and reflecting on the personal experience is clearly a major factor for developing higher-level learning.” (Boud et al., 1993, p. 4)

One of the more important outcomes of experience is higher order learning, the ability to synthesize the important classroom and textbook theory with the reality of the life experience. We learn every day and in most situations. Orchestrating this kind of learning and cataloging it is very challenging.

[L]earning is all around us, it shapes and helps create our lives – who we are, what we do. It involves dealing with complex and intractable problems, it requires personal commitment, it utilizes interaction with others, it engages our emotions and feelings, all of which are inseparable from the influence of context and culture. (Boud et al., 1993, p. 1)

Experiential learning is contextual (Boud et al., 1993; Dewey, 1938). For students, this is “messy, inconvenient, adventitious, but ultimately profound learning from experience which is available to them at many times and in many places...” (Boud et al., 1993, p. 7). Each learner has a lifetime of experiences which influences his or her ability to gain the most from any experience. Boud and Walker (1990) refer to this as the learner’s “personal foundation of experience.” “We attach our own meaning to events.” (Boud et al., 1993, p. 10) The learner participates in the process and has a stake in the outcome. The learner takes an active part in their own construction of knowledge. This participation has been found to enhance the retention of skills and knowledge acquired (Armstrong, 2003; Ruhanen, 2005).

The hospitality industry is intensely pragmatic; hospitality management programs have recognized this and strive to use practical experiences to enhance the preparation of the students for their futures as managers (Foucar-Szocki & Bolsing, 1999; Goodman & Sprague, 1991). There are many forms of experiences that can bridge the gap between practice and theory. Banathy (1994) recognized that active learning was superior in creating learning opportunities for critical thinking and problem-solving. In a study conducted by Goodman & Sprague (1991) these skills were identified by the industry as being among the most important skills for management trainees to possess. Active learning techniques are quite prevalent in hospitality education: Guest lectures, field trips, simulations, role-play, internships, coops, externships also offer a student a practical experience against which the theory of the classroom is designed to make sense.

Experiential learning approaches such as role-play have been found to be valuable methods of bridging the divide between academic knowledge and practical skills...Such approaches have been found to contribute towards deeper learning by enhancing students interest, motivation, participation, knowledge and skill development. (Ruhanen, 2005, p. 33)

More specifically, hospitality education has been viewed through the lens of experiential learning with regard to the specific outcomes discussed above. Armstrong (2003) differentiates between academic outcomes and vocational outcomes; both can be supported by experiential learning. Role Play allows students to “experiment with new behaviors and skills in a risk-free environment.” (Armstrong, 2003, p. 6; Errington, 1997)

Ruhanen (2005) studied the impact of role play on hospitality management students with a focus on confidence building, enhanced interest in the industry, but specifically with regard to deeper learning which she defines as skills development and knowledge retention. In a case study of a semester long role play, Armstrong (2003) found “[t]he role play was an opportunity for students to reflect on, review and integrate theoretical course material and achieve a greater understanding of stakeholder positions.” (p. 8) Academic and vocational skills were honed including behaviors appropriate to a business meeting/environment. Armstrong based her curriculum on Shea and Roberts' (1997) appeal for andragogy focused curriculum – allowing adult learners to bring their life experience to bear in the classroom.

Teaching hotels, or as LeBruto & Murray (1994) called them “Captive Hotels”, are defined as on-campus “adjacent or associated hospitality facilities” serving as one of the “experiential (learning) component of the curriculum”. (p. 72)

To build the future it is important to understand the past, origins of its education concepts and trends revealed through its latest developments. In the past, many on-campus teaching hotels were conceived to expand the learning that responds to the authentic theoretical and practical needs of this mega services industry that is hospitality

Gaining practical skills tends to be stressed by hospitality management programs and the stronger ties which can be established with the hospitality industry, the more effectively certain experiential learning objectives can be achieved (Foucar-Szocki et al, 1999).

Methodology

The literature review explored sources as found in JSTOR and ERIC platforms to identify experiential learning theory as a foundation for the theory as applied in the hospitality management curricula. Dewey (1938) and Kolb (1984) are the most recognized architects of this theory (Boud et al., 1993).

Sample

The sample examined in this study is hospitality management programs in colleges and universities. ICHRIE (International Council of Hotel, Restaurant and Institutional Educators) member institutions will be considered as the survey was distributed through this professional association. For the sake of this study, hospitality management programs are defined as culinary, travel, tourism, hotel, restaurant, events, and hospitality management degree programs at accredited colleges and universities.

Data Collection

Data was collected using two distinct methodologies. A survey was distributed to ICHRIE members and then a search of institution websites was performed using the ICHRIE member institutions as a guide.

The survey was designed using Qualtrics survey software following a consideration of the literature. This survey was tested and piloted 3 times using industry professionals and higher education colleagues some of whom are administrators or faculty in hospitality management. In September it was finalized to send out to the ICHRIE members. The association forwarded the survey link to ICHRIE members in early October via the association’s listserv, 1 reminder was attached to correspondence about a separate matter. The survey link was open for 2 weeks, after which data was cleaned and examined. The data collection tool was emailed to 1,095 international members of the association. The results are based on a sample of 50 I-CHRIE respondents (n). This indicates a response rate of 4.5%. According to Fan and Yan (2010), this response rate does not qualify as significant.

In order to support the construction of the inventory, websites were reviewed for more than 90 hospitality programs. The website review yielded much more information and some

illuminated some interesting considerations. The search terms “Hotel” and “Conference Center” were employed for programs identified as ICHRIE member institutions, as well as programs identified as accredited by ACPHA (Accreditation Commission for Programs in Hospitality Administration) (“Accreditation Commission for Programs in Hospitality Administration,” n.d., Accredited Programs). In the course of searching the institution sites, it was discovered that a few institutions are identified as having conference centers with guestrooms, but these institution websites yielded no hits with regard to a hotel search. In consideration this, all conference centers with even one guestroom are considered in the inventory as hotels.

All research is limited by the resources available to the researchers. The study proposed here is no different. This study is limited to the population of U.S. Hospitality Management programs at the college and university level, rather than including all such programs around the world. There are many interesting curricular innovations in other parts of the world that would inform this inquiry, but for this introductory study the website data is more easily accessible for the U.S. Additionally, respondents may have misunderstood the questions and some of the questions solicited perceptions as opposed to facts. These perceptions are possibly influenced by the role the respondent plays in the hospitality program.

Findings

The results from the ICHRIE member survey are considered here. In terms the profiling the host institutions, the regional distribution received from the 50 participants, was 78% from the United States of America. The rest of the world single institutions participants were from Albania, Austria, Canada, Cyprus, Kenya, Mexico, Philippines, Spain and two responses from Switzerland. This suggests that the study attracted a disproportionately high number of North American I-CHRIE members compared with a low number of international members. The following Google Map indicates the location of the respondents at the moment they filled out the survey:

Map Data © 2015 Google Retrieved: Google Maps. (2015). Retrieved from:



<https://www.google.com/maps/place/29%C2%B0050'02.4%22N+95%C2%B0026'03.1%22W/@26.5571898,4.5702754,4z/data=!4m7!1m4!3m3!1s0x0:0x0!2zMzLCsDI1JzA0LjQiTiA4McKwNDYnNTYuMyJX!3b1!3m1!1s0x0:0x0>

Figure 1: Map of all Responses for ICHRIE Member Survey

The majority of participants (78%) were from the United States of America, followed by Albania (2%), Austria (2%), Canada (2%), Cyprus (2%), Kenya (2%), Mexico (2%), Philippines (2%), Spain (2%), and Switzerland (4%) (see Figure 1). The vast majority of participants were from public universities (70%). Only thirty percent (30%) were from private universities or colleges. Most of the survey respondents (83%) were faculty members of hospitality programs. Only seventeen (17%) percent were administrators. In terms of academic programs, the highest percentage of participants offered Bachelor's degree programs (45%), followed by Graduate programs (35%), and Associates Degree or Professional Programs (14%).

Interestingly, the majority (59%) of the participant institutions indicated that they have enterprises on campus (hotels, conference centers, restaurants, student or faculty dining, special events ...) where experiential learning classes are offered. More than a third of the programs were found to integrate classes within a Conference Center/ Executive Center (38%) and/or a Hotel (42%), in total, 13 institutions in the U.S. and one in the Philippines. Also, 4 institutions where responses indicate both a Conference Center/ Executive Center and a Hotel were identified: University of Houston, Indiana University, Penn State University and California State Polytechnic University. This further supported the decision to include conference centers with guestrooms as hotels for the purposes of this study.

Most institutions (59%) had enterprises on their campuses (e.g. hotels, conference centers, restaurants, student or faculty dining, and hosted special events). More than a third of the programs (13 U.S. and 1 Philippines) integrated classes within a Conference/Executive Center (38%), or a Hotel (42%). Only (12.5) of the sample had both, a Conference/Executive Center and/or a Hotel. All of the institutions that had both a Conference/Executive Center and a Hotel, were U.S. based. They also had the highest mean of graduating students ($M=265$) when compared to the total sample mean ($M=141$).

Table 1. Enterprises Identified by Participating Institutions from ICHRIE Survey

Institutions integrating classes within a Hotel	Institutions integrating classes within a Conference Center/ Executive Center	Institutions integrating classes within both a Hotel and a Conference Center/ Executive Center
Lyceum of the Philippines University, Manila	Madison College (Madison Area Technical College)*	University of Houston
University of Arkansas*	Kendall College*	Indiana University
University of Houston	University of Houston	Penn State University
Indiana University	Indiana University	California State Polytechnic University, Pomona
Penn State University	Penn State University	
University of South Florida, Sarasota	New Mexico State University*	
Cornell University	California State Polytechnic University, Pomona	
California State Polytechnic University, Pomona	California State University, East Bay*	
West Virginia University (WVU)		

*Indicates the information was not corroborated by the website search.

The majority of participant institutions (59%) offered experiential learning courses as part in their curriculum. The highest number of students (275) participated in those programs. The majority of these programs (64%) had an average of four faculty members/instructors per experiential leaning course. These results make sense as they involve components of production, service and production. In light of the literature about experiential learning, this is not surprising (Richardson & Kleiner, 1992). Indeed, all lab courses require a greater amount of resource allocation in terms of equipment and instructor(s) in higher education.

Apart from the lodging facilities, the majority of hospitality programs that had experiential learning programs offered courses in Restaurants (88%), followed by Campus Dining (46%) Catering (33%), Farmers Market (46%), Faculty Dining Club/ Dining Room (4%), and Bar and a Travel Desks (4%). None of the participants had a program that included bartending classrooms, an aviation reservation system room or a simulated flight cabin classroom for experiential learning like the courses offered by Vanung University's College of Tourism and Hospitality in Taiwan.

There are programs like this all over the world, but for this study only the U.S. programs will be inventoried. The low survey response rate required a new form of data collection. When a search of institutional websites was added to the methodology to support the inventory construction, the decision was made to consider only U.S. based hospitality programs.



Figure 2: Map of U.S. Responses from ICHRIE Member Survey

The search of the websites from U.S. hospitality programs revealed the following inventory:

Table 2: U.S. Hospitality Programs with Hotel and/or Conference Centers on Campus

University/College	Hotel Name	Rooms Capacity	Banquet/ Meeting space	City / State	Location (*)
Drexel University <i>(in the pipeline to open in Fall, 2016)</i>	The Study Hotel	212 rooms	7,000	New Haven, CT	Urban
Stockton University / Richard Stockton College	Seaview Resort	296 rooms & 16 suites	4,500	Galloway, NJ	Resort

University/College	Hotel Name	Rooms Capacity	Banquet/ Meeting space	City / State	Location (*)
James Madison University <i>(in the pipeline to open in Fall, 2016)</i>	Madison Hotel & Conference Center	205 rooms	5,000 estimated	Harrisonburg, VA	Small Metro/Town
Indiana University of Pennsylvania <i>(in the pipeline to open in the Summer, 2016)</i>	Hilton Garden Inn	128 rooms & suites	,000	Indiana, PA	Small Metro/Town
Grand Canyon University	Grand Canyon University Hotel & Conference Center	260 rooms & 40 suites	N/A	Phoenix, AZ	Suburban
Indiana University Bloomington	Biddle Hotel and Conference Center	189	0,000	Bloomington, IN	Urban
Cornell University	Statler Hotel	153	6,000	Ithaca, NY	Urban
Auburn University	Auburn University Hotel	236 rooms & suites	2,000	Auburn, AL	Urban
University of Houston	Hilton University of Houston	86	5,000	Houston, TX	Urban
Penn State University	The Penn Stater Conference Center Hotel	300	8,000	State College, PA	Small Metro/Town
University of Delaware	Courtyard Newark-University of Delaware	121 rooms & 5 suites	,225	Newark, DE	Small Metro/Town
Oklahoma State University	Atherton Hotel	69	,000	Philadelphia, PA	Small Metro/Town
Purdue University	Union Club Hotel	192	0,000	West Lafayette, IN	Small Metro/Town
Iowa State University	Hotel Memorial Union	??	?	Ames, IA	Small Metro/Town
University of South Florida at Sarasota <i>(partnership initiated fall, 2015)</i>	The Resort at Longboat Key Club	223	4,531	Sarasota, FL	Resort
University of West Virginia	Jackson's Mill	25 plus various dormitory style cottages		Morgantown, West Virginia	Rural

(*) STR Inc. categories (STR Global, n.d., Glossary

The disappointing results of the survey required a new approach to examine the phenomenon of experiential learning in hospitality higher education programs. Sánchez-Fernández and his colleagues (2012) suggest that the three parameters which can positively influence responses to Web-based surveys are: personalization, the timing of follow-up mailings, and incentives based on prize drawings. Institutional Review Board approval was based on the non-human subject research and was approved given the survey distribution managed by a third party, ICHRIE. Higher education ethical research approaches, aligned with data protection and privacy laws, make it increasingly difficult to communicate directly with the sample. ICHRIE also changed its policy with regard to timing and distribution of surveys amongst the members, but this policy change was not communicated to the membership at large.

Limitations include the respondent understanding of the survey questions. Responses which are not corroborated by the website search indicate a challenge with either one of the methodologies. The website search revealed a poor use of keywords in many university websites. Webmasters cannot be experts in all the disciplines of their institution, but the varying sophistication of many websites was of concern.

Overall, from both data sources, several interesting findings were identified. Unexpectedly, there seem to be quite a few hotels on campuses where there are no hospitality programs. What are the implications of this with regard to hospitality programs which exist on campus where these enterprises operate? If these are purely for profit enterprises, is there a future for active learning for those located on campuses which house a hospitality program?

Many community colleges have conference centers without guestrooms. The community college mission is usually tied to job readiness, training for the community and community relations (Ayers, 2015). This interesting finding is a unique application of experiential learning seems to be utilized for practice for culinary programs as identified by the website investigation.

Conclusions

In conclusion, there are a variety of ways that experiential learning is being utilized in hospitality programs. The importance of connecting the curriculum to the operations on campus as well as off campus (often internships) requires further exploration. Sadly, the hypothesis as originally proposed was not supported by the research outcome.

- H_1 There is no single model of pedagogy or operation for an On-Campus Hotel associated with a hospitality management curriculum.
- H_0 On-Campus Hotels associated with a Hospitality Management Curriculum are rather similar and are used in similar ways to affect student learning outcomes.

The limited number of responses to the survey constrain the project with regard to supporting curricular connections and identifying specifics (operational, ownership and success) in consideration of those hospitality enterprises on campus. The web search was unable to uncover the curricular specifics with regard to experiential learning focused

learning outcomes as identified from the literature. However, many interesting operations and curricular innovations were discovered in the web search, as well as the literature review.

The next stage of this ongoing research project will be to interview administrators in the programs identified in order to gain a deeper understanding of how the hotels/ conference centers are used for learning; what the critical success factors are for the hotel in the eyes of the administrator; and the history of the hotel and the relationship with the curriculum.

Additionally, inventorying these unique learning experiences beyond the U.S. borders will be most informative. Unique and inspiring examples of best practices exist around the world: The Hotel Icon at Hong Kong Polytechnic University (Tse, 2012) and Haaga-Helia (Tuomi & Bjorkqvist, 2010) in Finland. In addition to being innovative with regard to curriculum, these projects highlight business innovations which can also serve to inform the hospitality industry. This practice represents a true marriage of the hotel/ conference center to the university with regard to research and innovation expertise and enhances the opportunity for engaged scholarship and service to the hospitality industry.

The conference centers discovered on community college campuses offers fertile ground for exploration. Community colleges offer the most practical programs and are well known for a pedagogical focus as opposed to research focus (Marashio & New Hampshire Community Technical Coll. System, 1998).

The survey also included questions about other on campus enterprises that can and often are used as curricular tools (restaurants, faculty dining rooms/ clubs, catering and student dining operations...) These other operations are often used to bring the curriculum to life and offer authentic learning experiences for hospitality students.

Finally, many hospitality programs have an internship requirement. Both data collection methods employed in this study began to identify these requirements as institutionally unique, yet generally similar amongst programs with regard to the overall value of the experience.

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Managing Community Development Projects: An Interdisciplinary Approach to Implementing Organizational Change in a Norwegian Public Health Organization

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Abstract

Developing interdisciplinary projects to achieve public health goals in private and public sectors is a commonly used strategy. One key factor in this regard is project anchoring. The term *anchoring* is in organizational literature described as stakeholders *required knowledge, interest and commitment to follow through with organizational change*. To explore if all involved parts in a Norwegian public health organization dealing with management change, had a common understanding of the concept, 9 stakeholders participated in a semi-structured interview. The data was analyzed within the framework of interest, motivational and stakeholder theory. The results show that the stakeholders understood the concept of *anchoring* differently, revealing diversity in values, cultures and organizational commitment. The project manager seemed to be more committed, and aware of the importance of anchoring than respondents in no-leading positions. In this respect, management change seems to be dependent on the project managers' knowledge, interest and commitment. Interest in own profession and own department was found to be motivating and committing to a larger extent than the interdisciplinary project alone. Results from this study indicate that focus on common values, cultures and organizational commitment in the preparing stages is necessary to obtain collaborative practice-readiness, and therefore, should be considered as a first step when planning interdisciplinary collaborative projects.

Keywords: anchoring, stakeholder theory, motivation, organizational perspective, collaborative practice-readiness

A Review on Grant Mechanisms Provided for Entrepreneurs and SMEs in Turkey

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Abstract

It is known that the basic indicator of development of a country and reducing the rate of unemployment is producing employers rather than employees. In this regard, each country has its own system to support entrepreneurs or SMEs. In Turkey, there are various grant mechanisms such as KOSGEB, Regional Development Agencies, TUBITAK, European Union and Instrument for Pre-Accession Assistance Rural Development (IPARD) Programme. Some of these mechanisms work based on projects, while some of them allocate grants based on the principle of declaration. This is a review study that can be considered as guidance for entrepreneurs and SMEs in line with current legislations. In the final section of the study, difficulties and concerns encountered in practice are presented.

Keywords: entrepreneurship, grant projects, SMEs, investment

Introduction

Today, there are advantageous loans and non-repayable financial support (grants) programs offered for entrepreneurs by almost every state in order to sustain national development. In Turkey, various grant programs have been implemented and there are still various grant programs currently being implemented. However, these programs had to be revised each year. In this context, this study consists of the compilation of available loans and grant programs offered to entrepreneurs in Turkey.

Small and Medium Enterprises Development Organization (KOSGEB), Regional Development Agencies and Instrument for Pre-accession Rural Development (IPARD) support entrepreneurs and SMEs, while Turkey Scientific and Technological Research Council of Turkey (TUBITAK) supports a wide range of projects such as European Union projects, social responsibility projects, research and development (R&D) and mobility projects. In Turkey, there are many support institutions including the above-mentioned institutions. However, in this study, we have focused on KOSGEB, IPARD and Regional Development Agencies since they provide supports for directly entrepreneurs. The most important limitation of this study is that it reflects the current situation as of 19.10.2015. Although the most current status of support instruments provided by these institutions are included, these support programs may be outdated due to the changes that will occur in the future.

KOSGEB: Small and Medium Enterprises Development Organization was established in order to raise effectiveness and share of small and medium-sized enterprises in meeting the country's economic and social needs, increase their competitiveness levels and realize the integration of the industry in accordance with the economic developments. The abbreviation of the organization is KOSGEB. KOSGEB is a legal entity related to the Ministry of Industry and Trade and subjected to a private law. (Law 3624, 1)

KOSGEB Supports (KOSGEB, 2015)

SME Project Support Program: The aim of this program is supporting projects in areas such as manufacturing, management, marketing, foreign trade, human resources, financial affairs and finance, information management and related areas since SMEs need a program that allows them to project their own issues and financially support projected costs, there is a need for improving project culture and awareness in SMEs, improve their abilities to create projects, and also there is a need for flexible support system.

Thematic Project Support Program: The aim of this program is encouraging SMEs to develop their activities and Professional Organizations to develop small and medium-sized enterprises, meeting regional and sectoral needs in thematic areas determined by taking indicated priorities given in the macro strategy documents into account, ensuring the compliance of SMEs with international legislation and priorities.

Cooperation and Coalition Support Program: The aim of this program is supporting cooperation and coalition projects including joint procurement, joint design, joint marketing, joint laboratories, joint manufacturing, joint service delivery and other cooperation projects in Middle-High and High Technology areas with alliance of SMEs.

R&D, Innovation and Industrial Application Support Program: This program was developed to create support mechanisms that support SMEs and entrepreneurs with new ideas based on science and technology, support techno-entrepreneurs with technological ideas, promote the R&D awareness and increase the capacity of R&D in SMEs, develop the existing R&D supports, promote innovative activities, commercialize and industrialize results of R&D and innovation projects.

General Support Program: This program was developed to make sure that SMEs apply for available KOSGEB grant programs and receive financial support and produce quality and efficient products/services. It is aimed to promote general business development activities of SMEs in order to increase their competitiveness, improve their promotion and marketing activities to increase their market share both in domestic and international markets.

New Entrepreneur Support Program: The aim of this program is supporting entrepreneurship and establishing successful enterprises.

Business Development Centre (BDC) Support Program: Operational and establishment costs of a BDC, which will be established to provide business development assistance, reaching support networks, access opportunities to financial resources, business space

under suitable conditions, common office equipment and office services for SMEs, are supported.

Loan Interest Support: Loan interest support program is offered by KOSGEB for SMEs in order to improve their production capacity, quality and standards of their products, solve their financial problems, create employment opportunities and enable them to compete at international level.

KOSGEB Laboratory Services: A total of 12 laboratories in 9 cities are giving technical support to SMEs in order to improve the quality of their products, enable them to compete with international companies and produce many products in the country. These laboratories are located in KOSGEB Centers and they offer services in various areas for very low prices compared to laboratory market rates.

In Table 1, upper limits of grants and loans offered by KOSGEB, duration of these programs and grant rates are presented.

Table 1: KOSGEB Supports

	Upper Limit of Grant (TL)			Support Rate (Region) %
Name of Support Program	Grant	Refundable	Duration (Month)	1-2 3-4-5-6
SME Project Support Program	150.000		6-24 (+12)	50 60
Thematic Project Support Program	150.000		24 (+12)	50 60
Cooperation-Coalition Support Program	300.000	700.000	6-24 (+12)	50 60
R&D and Innovation Support Program	450.000	300.000	24 (+12)	75 75
Industrial Application Program	318.000	500.000	18 (+12)	75 75
General Support Program	270.000			50 60
New Entrepreneur Support Program	30.000	70.000		60 * 70 *
İŞGEM Establishment Support	750.000			60 70
İŞGEM Operation Support	100.000			60 70
Emerging Enterprises Market SME Support Program	100.000			75 - 100 75 - 100
Loan Interest Support		300.000	48	

Grant Rate for Woman Entrepreneurs, Veterans, First Degree Relatives of Martyrs or People with Disabilities is increased by 20%.

Source: KOSGEB

In Table 2, the distribution of regions for KOSGEB support programs is given. This distribution is based on development level of the provinces.

Table 2: Investment Promotion Zones

1. Region	2. Region	3. Region	4. Region	5. Region	6. Region
Ankara	Adana	Balıkesir	Afyonkarahisar	Adiyaman	İğdir
Antalya	Aydın	Bilecik	Amasya	Aksaray	Ardahan
Bursa	Bolu	Burdur	Artvin	Bayburt	Batman
Eskişehir	Çanakkale*	Gaziantep	Bartın	Çankırı	Bingöl
İstanbul	Denizli	Karabük	Çorum	Erzurum	Bitlis
İzmir	Edirne	Karaman	Düzce	Giresun	Diyarbakır
Kocaeli	Isparta	Manisa	Elazığ	Gümüşhane	Hakkari

Muğla	Kayseri	Mersin	Erzincan	Kahramanmaraş	Iğdır
Kırklareli	Samsun	Hatay	Kilis	Kars	
Konya	Trabzon	Kastamonu	Niğde	Mardin	
Sakarya	Uşak	Kırıkkale	Ordu	Muş	
Tekirdağ	Zonguldak	Kırşehir	Osmaniye	Siirt	
Yalova		Kütahya	Sinop	Şanlıurfa	
		Malatya	Tokat	Şırnak	
		Nevşehir	Tunceli	Van	
		Rize	Yozgat	Çanakkale**	
		Sivas			

* Expect Bozcaada and Gökçeada Districts

** Only Bozcaada and Gökçeada Districts

Source: Investment Promotion Zones, Official Gazette

Regional Development Agencies: There are 26 regional development agencies that are responsible for social and economic development of their regions established under directorate of Ministry of Development. Geographically similar and close cities were selected while creating these 26 regions.

Table 3: Development Agencies in Turkey and Provinces Covered

Development Agency	Provinces
Ahiler(AHİKA)	Aksaray, Kırıkkale, Kırşehir, Niğde, Nevşehir
Ankara (ANKARAKA)	Ankara
West Mediterranean (BAKA)	Antalya, Burdur, İsparta
West Black Sea (BAKKA)	Bartın, Karabük, Zonguldak
Bursa, Eskişehir, Bilecik (BEBKA)	Bilecik, Bursa, Eskişehir
Çukurova (ÇKA)	Adana, Mersin
Eastern Mediterranean (DOĞAKA)	Hatay, Kahramanmaraş, Osmaniye
Eastern Anatolia (DAKA)	Bitlis, Hakkari, Muş, Van
Eastern Black Sea (DOKA)	Artvin, Giresun, Gümüşhane, Ordu, Rize, Trabzon
Eastern Marmara (MARKA)	Bolu, Düzce, Kocaeli, Sakarya, Yalova
Dicle (DİKA)	Batman, Mardin, Şırnak, Siirt
Fırat (FKA)	Bingöl, Elazığ, Malatya, Tunceli
Southern Aegean (GEKA)	Aydın, Denizli, Muğla
Southern Marmara (GMKA)	Balıkesir, Çanakkale
Silk Road (İKA)	Adıyaman, Gaziantep, Kilis
İstanbul (İSTKA)	İstanbul
İzmir (İZKA)	İzmir
Karacadağ (KARACADAĞ)	Diyarbakır, Şanlıurfa
Northern Anatolia (KUZKA)	Çankırı, Kastamonu, Sinop
North East Anatolia (KUDAKA)	Bayburt, Erzincan, Erzurum
Zafer (ZAFER)	Afyonkarahisar, Kütahya, Manisa, Uşak
Mevlana (MEVKA)	Karaman, Konya
Middle Anatolia (ORAN)	Kayseri, Sivas, Yozgat
Middle Black Sea (OKA)	Amasya, Çorum, Samsun, Tokat
Serhat (SERKA)	Ağrı, Ardahan, Iğdır, Kars
Trakya (TRAKYAKA)	Edirne, Kırklareli, Tekirdağ

Source: Republic of Turkey Ministry of European Union

Support Programs Provided by Development Agencies:

Call for Proposals (Financial Support Program): Each agency organizes a workshop in its region. In these workshops, the sectors that will be financially supported are determined by public and private sector representatives. Different sectors may be included under these programs.

Support programs offered for other projects are as follows (BEBKA, 2015):

Direct Activity Support: The aim of this program is supporting activities that may contribute to the decisions of realization of large volume investments in the short term and launch of the strategic actions such as preliminary feasibility studies for innovation and business development centers, technology development centers and techno parks to develop entrepreneurial capacity of the region, and research and planning studies that are important for benefiting from important opportunities for regional development and competitiveness, taking urgent measures to prevent risks for regional economy.

Technical Support: This program is offered to support institutional and capacity building activities such as training programs, contributing to the preparation of projects, assigning temporary experts, providing consultancy, building international relations and lobbying that may contribute to local and regional development within the framework of existing facilities by its staff in the hand or hiring the services if necessary.

Interest/Dividend Support: This is a non-refundable financial support, in which the interest expenses to be paid by for-profit natural and legal entities for projects described in the application form will be covered by the agency.

Interest Free Loan Support: Interest free loan support is a financial support offered by the agency for both for-profit natural and legal entities based on projects described in the application form when they receive their loans from relevant institutions. These entities pay the loan back to the agency by instalments within the principles and regulations of the Agency.

Guided Project Support: These are model projects with special qualifications set out within the guidance and leadership of the agency in accordance with priorities proposed in the regional development plan by providing direct financial support without calling for proposals. The aim of these projects is strengthening the private sector operations, improving production and export capacity, development of good practices, promoting sectoral diversification and specialization, developing, transferring and extending specialties, skills and technologies, development of new financing models, promotion of university-industry collaboration, establishing cooperation networks and value chains, promoting clusters, development of new industrial infrastructure and organizational models and development of human resources in areas needed by the companies in the region.

In addition to these support programs, each agency may announce financial support programs under different names. Two of the examples are listed below. (KARACADAĞ, 2015)

Supporting Attraction Centers Program (CMDP): The overall aim of this program is contributing to the reduction of regional disparities at national level by spreading socio-economic development of the attraction center to other surrounding areas. The main purpose of the program is accelerating the economic development of urban centers and eventually keeping the internal migration within its territory with financial support programs provided for relatively underdeveloped regions and city centers that have the potential to serve to other surrounding areas. CMDP was launched in 2008 and Diyarbakır was selected as the “Pilot City”. A total of 17 projects were launched between 2008 and 2010 and a total of 47,291,603.15 TL were spent for these projects. Implementation of these project has been completed.

Interregional Cooperation Programs: The primary objective of this program is improve cooperation between Sanliurfa and Al-Raqqa, Aleppo and Al-Hasakah within the scope of Interregional Cooperation Program between Turkey and Syria. Projects in the areas related to Development of Social and Physical Infrastructure, Increasing Employment, Promotion of Entrepreneurship, Technical Cooperation and Development of Local Capacity, Research and Development, Culture and Tourism are prioritized.

Table 4: Supports Provided by Development Agencies

	Program Budget (TL)*	Upper Limit of Grant (TL)	Duration (Month)	Grant Rate %
Financial Support Program	23.000.000	500.000	9-12	50 - 75
-For Profit Institutions	13.000.000	500.000	9-12	50
- Non Profit Institutions	10.000.000	500.000	9-12	75
Direct Activity Support**	500.000	75.000	3	100
Technical Support**	500.000	15.000	1	100

*Program budget of each agency is different. The budget of MEVKA is given for 2015 in the Table.

** Only non-profit institutions can apply to these programs.

Source: MEVKA

IPARD implemented by Agriculture and Rural Development Support Agency:

Agriculture and Rural Development Support Agency (TKDK) of Ministry of Agriculture and Livestock coordinates calls for proposal related to investments that will be implemented within the scope of Rural Development Component of IPA, which is The Instrument for Pre-accession Assistance of European Union, on behalf of Turkey. (TKDK, 2015)

European Union Rural Development (IPARD) funds are granted towards the following priority axes.

- Priority Axis 1: Implementing Community standards to the areas related to Common Agricultural Policy and food safety, veterinary and plant health and contributing to sustainable adaptation of the agricultural sector.

- Priority Axis 2: Contributing to pre-activities to take agricultural-environmental measures and implement local rural development strategies.
- Priority Axis 3: Contributing to sustainable development of rural areas by supporting the development of rural economy.

In this program, only 42 cities that meet the support criteria are included among 81 cities in order to be supported in areas such as agriculture, animal husbandry and rural tourism. These cities are Afyonkarahisar, Ağrı, Aksaray, Amasya, Ankara, Ardahan, Aydın, Balıkesir, Burdur, Bursa, Çanakkale, Çankırı, Çorum, Denizli, Diyarbakır, Elazığ, Erzincan, Erzurum, Giresun, Hatay, Isparta, Kahramanmaraş, Karaman, Kars, Kastamonu, Konya, Kütahya, Malatya, Manisa, Mardin, Mersin, Muş, Nevşehir, Ordu, Samsun, Sivas, Şanlıurfa, Tokat, Trabzon, Uşak, Van and Yozgat.

IPARD Supports: (TKDK, 2015)

Supports for Agricultural Enterprises Produces Milk/Meat: It is aimed to modernize small and medium-sized agricultural enterprises, raise them to EU standards and enable them to make good farming practices.

Processing and Marketing Milk and Dairy Products: These support activities are grouped into two separate budget items. The purpose of these activities;

For Enterprises Processing Milk (Budget Item 1)

- a. Supporting small and medium sized enterprises processing 10-70 tons of milk daily in order to reach the community standards and increase their performance and competitiveness by using new technologies,
- b. Promoting integrated milk collection and processing network by supporting projects submitted by milk processing enterprises signed supply contracts with milk producers/producer organizations that have modern milking units and cooling tanks,
- c. Supporting limited number of micro enterprises (with less than 10 tons capacity per day) to reach the community standards and raise their daily capacity to 10 tons, which is defined as the economic viability threshold.

Milk Collection Centers (Budget Item 2)

Establishment of milk collection centers is supported with this program.

Processing and Marketing Meat and Meat Products: These support activities are grouped into two separate budget lines. The aim of supporting these activities;

Budget Item 1 (Red Meat Processing and Marketing); supporting integrated enterprises, red meat slaughterhouses (cattle / goat / sheep), crushing facilities and/or small sized meat processing plants to raise their infrastructures up to community standards and improve their overall performance and competitiveness through the implementation of new technologies.

Budget Item 2 (Poultry Processing and Marketing); supporting integrated enterprises, small and medium-scale poultry slaughterhouses, crushing facilities and/or small sized poultry

enterprises to raise their infrastructures up to community standards and improve their overall performance and competitiveness through the implementation of new technologies.

Processing and Marketing Fruit and Vegetables: The aim of this program is supporting small and medium sized enterprises that have integrated cold storage facility and sorting, grading and packing units to help them reaching EU standards and improve their overall performance and competitiveness through the implementation of new technologies, facilitating the use of early grown products by establishing integrated cold storage facilities to store the products and facilitating, regulation of markets, reducing losses and increasing product quality.

Processing and Marketing Aquatic Products: The aim of this program is giving priority to the cold chain applications in order to help enterprises reach community standards and improve their overall performance and minimize the losses after hunting. Supporting small and medium-sized fish processing plants and contributing to the establishment of new business opportunities in a limited number of provinces within the framework of priority objectives.

Diversification and Development of Farm Activities: In this program, it is intended to create supporting infrastructures such as micro-scale processing and packaging facilities for cultivating medicinal and aromatic plants as well as ornamental plants and beekeeping and honey production activities in addition to regular farming activities performed by micro and small sized enterprises and agricultural producers' organizations.

Development of Local Products and Micro Enterprises: The aim of this sub-measure is supporting local micro enterprises to prioritize products with Geographical Indication Certificate issued by the Turkish Patent Institute and traditional and unique local agricultural products (food and non-food) and traditional crafts.

Rural Tourism: The aim of this sub-measure is supporting establishment of pensions by micro/small sized entrepreneurs or farmers, development of "bed and breakfast" and accommodation and restaurant services, establishment and development agro-tourism facilities and development of facilities established for touristic recreational activities such as sports activities, nature trips and historical visits.

Development of Culture Fishing: The aim of this sub-measure is extending micro and small-scale farms (in production or new establishments) and supporting them to meet EU standards and apply good fish breeding practices.

Table 5: TKDK Supports

Name of the Program/Support	Upper Limit of Grant (Euro)	Grant Rate %
Investments in Agricultural Enterprises Producing Milk and Dairy Products	1.000.000	50 - 65*
Investments in Agricultural Enterprises Producing Meat Products		50 - 65*
Budget Item 1	1.000.000	
Budget Item 2	500.000	
Processing and Marketing Milk and Dairy Products	3.000.000	50
Processing and Marketing Meat and Meat Products	3.000.000	50
Processing and Marketing Fruit and Vegetables	1.250.000	50
Processing and Marketing Aquatic Products	1.500.000	50
Diversification and Development of Farming Activities	250.000	50
Development of Micro Scale Enterprises and Local Products	400.000	50
Rural Tourism	500.000	50
Development of Culture Fishing	400.000	50

*The rates are subject to change based on investing in mountainsides and being under age of 40.

*The investment duration is determined as 8 months by 15th call for proposal.

Source: TKDK

Conclusions

The aim of this review study is presenting advantageous loans and grants offered by KOSGEB, IPARD and Regional Development Agencies for entrepreneurs in Turkey. In this regard, support programs provided by KOSGEB, IPARD and Regional Development Agencies are included in the present study.

The limitation of the study is that it is based on the data of 2015 only. Although the most current supports are presented together, they will be outdated in the future. In addition, support rates, limits and subjects may differ for each call.

As a result of this study, we have come up some opinions regarding grants and loan programs in Turkey as follows;

- Increasing awareness of all grant programs by keeping their base broader,
- Organizing various training programs on entrepreneurship, grants and support mechanisms by universities and professional chambers,
- Providing these financial supports within the scope of a smaller number of subjects and allowing entrepreneurs to draw a clear road map,
- Minimizing the bureaucratic processes for financial support and grant programs offered by these institutions.

In addition, we think that this study would be a guide for those thinking to make new investments. The future studies may focus on a single grant or support program or they can investigate implementation of these grant and support programs.

Unfair “Fair Value” in an Opaque Credit Default Swap Market: How Marking-to-Market Pushed the International Credit Crunch

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Abstract

The study investigates the effects of mark-to-market write-downs by financial institutions on equity returns, trading volume, and credit default swap premiums; and whether the write-downs induce contagion effects on similar institutions without write-downs. The findings show that firms that wrote down assets in accordance with mark-to-market rules not only experienced significant abnormal negative returns and a spike in premiums of CDS written on their obligations, but that similar firms without write downs also exhibited sympathetic and significant negative abnormal returns at the same time as the write-down firms. This provides clear evidence of contagion effects induced by mark-to-market accounting. We document that the amount of the write-downs had a significant negative effect on both equity returns and a significant positive effect on CDS premiums. Moreover, these write-downs largely reversed immediately following the financial crisis once the market regained its liquidity. These combined pieces of evidence imply that a significant portion of the financial-crisis-write-downs was due to temporary illiquidity having adverse effects on equity prices and CDS premiums beyond what would've been justified based on increases in credit risk alone. These findings suggest that the standard of measuring fair values by exit values under SFAS 157 and IFRS 13 resulted in excessive asset write-downs and may have contributed to the severity of the financial crisis.

Keywords: contagion, fair value accounting, exit value, mark-to-market, credit default, swap premiums, asset write-downs, international financial crisis.

Digital Distraction: What does multitasking with socially interactive technologies takes away from the tourist experience?

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Abstract

Despite the increasing popularity of multitasking behaviors regarding socially interactive technologies (SITs), research in various disciplines suggests that humans do not possess multitasking abilities and that acting in this way negatively impinges on the processing of information. In the tourism domain, while the growing popularity of mobile media devices has not escaped the attention of scholars, researchers have predominantly centered on the positive implications of these technologies, to the neglect of the inadvertent side-effects of concomitant behaviors, such as multitasking with SITs, on the touristic experience. Using descriptive and interpretive approaches, this study explores tourists' notions of the impact, or lack thereof, of multitasking with SITs on their touristic experience through FGDs. While recognizing the immense role of SIT's in enhancing travel experiences, participants were generally of the view that multitasking with SITs also steals "something" from their personal tourist experiences. They observed that this practice detracts them from various aspects of the travel experience and makes it impossible to observe certain sights and sounds on the tourist trail. Among others, participants also observed that this practice results in less social connection with fellow tour group members and other players encountered on the tourist trajectory. Juxtaposing the study results with insights from the theories of Mindfulness, Crompton's (1979) Tourist Motivation and Urry's (2002) *Tourist Gaze* concept, the study proposes a framework for understanding the trade-offs that occur when tourists' multi-task in the course of consuming the travel product. Insights from this study offer a valuable foundation for future research aimed at understanding the potential paradoxes in the implications of using SITs, towards the optimization of tourists' consumption experiences.

Keywords: social media, multi-tasking, tourist experience, mobile media devices, tourist motivation

Research on Business Strategies of Travel Agency Based on Tourist Behavior

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Abstract

The development of tourism is based on the increase of social economy, and the transformation of social economic pattern will inevitably require a corresponding change in the development of tourism industry. Tourism economy is typically a kind of experiencing economy, and the nature of tourism product is to provide a wide variety of experiences. With the arrival of experiencing economy era, the demand of tourism consumption has changed dramatically, showing complete different characteristics as before, thus it requires the tourism corporations to make further analysis on the tourism consumption characteristics of the experiencing economy era. By doing this, these corporations must gain a deep understanding of the tourists' consumption preferences to change the traditional operation style and win the hearts of more tourists, thus they can acquire long-standing development and strengthen the competitiveness in global market.

Keywords: tourists' consumption behavior, tourism demand, responding strategy

Introduction

Alvin Toffler, famous American futurist, who ever predicted the appearance of the third wave, predicted that the service economy will gradually transform to experience economy. People will create more activities related to the personal experience, and company will improve competitiveness and obtain higher market returns through experience services. Now, this prediction come true, experience consumption era has quietly started. In 2013, China's tourism industry accounted for 9.5% of global GDP, which contributed 3.1% to global growth. Such a high speed of development will inevitably generate new forms of operations in the tourism industry. Although after 30 years the rapid development of Chinese tourism industry has been capable to satisfy the huge needs from tourists, but as new tourism forms of China travel service constantly appear, the operating strategy of Chinese travel agency has been fell behind the demand from market. Up to 80% of the Chinese existing travel agency service still stay in the traditional travel formats of group tour, and due to the lack of services or the programs that will inspire independent participation tourists who are desire to purchase. Additionally, the low-level consumption and unreasonable structure in this area are the main cause for this phenomenon.

In the area of modern society economy development, service industry is currently in a period of revolution. Customer demand gradually become diversified and personalized, this increasing requirements for service quality from customers cannot be simply met by the standard service in specific places, which puts forward higher requirements in terms of responsiveness and empathy for service companies. Currently Buyer's market position gradually rise, the enterprise are facing severe and turbulent change in the competitive

environment. Companies no longer to be arrogant for its occupancy of market share, changeable customers weaken the connection between market share and profits. In the tourism market, the change of consumer behavior is the precondition of market variation. In this case, to obtain higher benefit and profit, travel agency company in tourism industry have to change their operating strategy.

Methodology

In this article, the author use qualitative method to start analysis and all the analysis are based on the practice in the industry and teaching activities of author. In the one hand, as a professor in the university, the author directly has the access to involve in the work of tourism, such as giving guidance for travel agency to design new travel plan, guiding group travel, and propaganda new travel plan for travel agency and so on. Additionally, the author has abundant experience in tourism industry and gained first-hand information for the travel agency operation and management. On the other hand, as the main leader in tour guide college of the university, the author usually organize professional teachers and tourism industry practitioners to hold one or two academic meeting (the participants are mainly mid-level managers) every year, the main purpose is to timely make adjustment for the teaching plan according to the market demand, make talents and students more adaptable market competition, in this process, the author accumulated more relevant information in this field and the following analysis are convincing.

The Current Overview of Chinese Tourism Industry

The New Characteristics of Tourism Consumption

The traditional means of travel remains, while the new forms are rising. Although the majority of the tourists still prefer the traditional means of travel, the new forms of travel are also slowly high lightened. The tourists are used to be led by tour guides who make travel arrangements for meals and accommodation, cursory browse scenery, step by step to hit the tourist area, and helplessly linger the tourism souvenir shops. These are abandoned by the growing number of tourists. Meanwhile more and more tourists tend to chose new forms of travel which has become the trend.

Money-saving and helpful for bonding - it's popular among college students to seek for their schoolmates for convenience while traveling. Wherever to travel, wherever to seek local classmates to stay with. It is the cheapest way of traveling, and more and more college students like it.

"Travel-without-attractions" is a more enjoyable and money-saving way of traveling. When people complain about tourist attractions' overcrowding, a group of people is having their tours "upgraded"-- no attraction spots. None-scenic-tour is featured by no staying in the hotels, no visiting any attractions, nor appointing specific entertaining items. It is all about planning the trip by tourists themselves and finding their own interests in sightseeing and leisure. It is truly a tour of "I am the master of my holidays"

"House Exchange Holiday" is not only money-saving but also a comfortable way of travel. It is a new way of traveling which is generally between relatives and friends or

acquaintances in different cities to make agreements on swapping their homes for traveling. There are many people make their tour on the help of the Internet with strangers. Compare with the group tour and self-help tours, this way of traveling has the advantages of being economically affordable and have no limits on the seasons.

"Spiritual journey", the official name should be called "therapy travel". This is a new form of travel in our country. In addition to the members of the group, there is one or more of the psychological doctors who are also in the division. During the tour, tourists are trying to open their hearts, interact while receiving psychological counseling and conditioning.

An expert on therapy travel believes that, compared with the general forms of tourism, therapy travel focuses more on the psychological recovery of the tourists, which could offer them physical and mental relaxation. She said a lot of people are carrying the pressure from work, and they may feel extremely exhausted - not entirely due to physical overdraft but do not rest the right way. On weekend or holiday, they play cards, listen to music, and watch TV, or even sleep. These activities seem relaxed and leisure, but in fact, they are not the scientific ways of relaxing. Because the fatigue urban white-collars often feel is mostly mental, rather than physical. Therefore, the physical "rest" cannot relieve the fatigue. "Therapy travel allows tourists to participate in moderate outdoor activities and some particular interactions, so that their minds could relax and adjust, and then the problems of mental fatigue could be solved."

"Plastic surgery tour" is a "One Stone and Two Birds" way of travel. "Take a tour to South Korea, have some sightseeing and one or two Plastic operations and after a couple of days recovery before heading home, your family and friends just have no idea that I just finished the operation." Ms. Liu who is ready to choose an eleven-day South Korean plastic surgery tour during China's National day holiday, told the reporter. At that time, the weather is cool and pleasant, which is a good time for the recovery after the plastic surgery. Nowadays a lot of surgery is minimally invasive with short recovery period - within a week - some lifting operations do not even require a sick leave note. So taking a plastic tour during holidays not only won't affect work but also offer plenty time to rest.

Wedding photography travel. At the sixteenth Shanghai International Wedding exhibition, exhibitors from a Taiwan enterprise launched a 100000RMB (\$15,700) Taiwan wedding photography tour. The package includes wedding photography, accommodation, transportation and personnel service fee, as well as premarital medical exam in the best medical center in Taiwan, and custom dresses which value up to 50000RMB (\$7,500) for the new couple. "We offer various outdoor photo-shooting plans, such as a Greek style cave, Danshui fisherman's wharfage, Danshui fort barbette, Yang Ming mountain and sea taro field." "Let the lake of Riyuetan witness your love in our camera", the slogan in the commercial of a wedding photography is romantic and irresistible, which started to show the appeal with the "Taiwan Honeymoon Wedding Tour". Recently, a website has launched the "Taiwan seven-day-tour & wedding honeymoon Deluxe", with the reference price of 14800 RMB/person, including the trip photography filming in Taipei.

Self-organized package tour. A small group of people, who are relatives and friends, choose the tourist route, accommodation and diet, and then simply let the travel agency to take over the rest of the work. Compared with the routine package tour provided by the travel agency, it is much more flexible to choose the travel time, routes, and accommodation standards for self-organized tourists. At the same time, all the practical period during traveling would be took care by the professional tour guide, which makes this form of travel become more and more popular in the tourism market.

The experience-based tourism has been more favored

The change of economic form has brought the development of tourism. In general, in the experience economy era, tourists have turned to the personalized products instead of the traditional tourism products. They have made themselves from the "spectators" to the "participants". They value the "results" and "process" at the same time. Instead of just travel with the eyes, tourists are eager to interact and participate to gain their own experience. Compared with the traditional forms of tourism, experiential tourism has the following differences:

The traditional forms of tourism mainly focus on standardization and organization. Tourists' consumption capacity is generally weak, and simply go with the idea of "I've been here" - they are also known as sightseeing tourism. During that period, tourists usually passively accept the arrangement of the travel agency, and there were rare tourism activities they could participate in. In experiential tourism, tourists are no longer satisfied with being organized and arranged, but start to organize and arrange with their own interests. They no longer prefer the standardized tourism products, but to make their own tour plan, and participate in the tourism activities with passion. Tourists would learn, communicate, experience, and fully enjoy the pleasure during the tour.

Traditional tourism mainly provides the infrastructure services for tourists. The tourist experience is only a byproduct in the process of tourism and did not cause enough attention. Therefore experience in the experiential tourism has become a theme product. To create a memorable experience for the tourists has been the focus of tourism products.

In the traditional tourism activities, tourism operators and tourists only interact in the time of the tourism products purchase, which is temporary. The operators basically won't communicate with tourists, and instead of trying to understand the needs of tourists, they usually design travel routes and tourism products with their own ideas. In the other hand, it is difficult for the tourists to feel connected with the operators and keep to their loyalty. While in experiential tourism, tourism operators are committed to create an environment and atmosphere that attracts tourists, which can not only gain the tourists' participation and feedback, but also enhance the tourists' understanding of the tourism operators, and eventually bring loyal customers.

In traditional tour, tourists are supposed to visit the arranged tourist attractions with a time limit, and they have no choice to be flexible. While in experiential tourism, when designing the tourism routes and products or organizing tourism activities, the tourism operators

would always try to meet the needs of the tourists. During traveling tourists have bigger autonomy and they could change visiting the time and location flexibly.

The Mass Tourism is falling and a niche travel market is forming.

The industry believes that the mainstream of tourism is to refer to the sightseeing tourism, where tourists are spectators, who take the camera while walking and just visit with their eyes. While niche travel is more thorough, in which tourists could experience the local life, culture and the humanities spirit. In this form of tour, tourists could even travel with a goal of professional. For instance, in the tour for the famous ancient buildings, a tour guide who is an expert on the folk's customs there would guide the tourists into new culture and gain deeper tourism feelings. In addition, such as blind date tour and the plastic tour have gained more attention of the tourists. Today, the tourism market tends to focus more on small group type of tourists.

The problem of intellectual property is increasingly prominent.

The lines and products of travel agencies are not protected by any intellectual property or patent. The agency which designed a new tour route may spent a huge amount of energy and cost, but once it gets profitable, other agencies would simply take it as their own. In addition to the vicious competition in the industry, some of the consumers' concept actually make bigger problem. At present, there are still a lot of tourists who still hold the idea of just visiting with their eyes, and refuse to pay for the personalized services offered by travel agencies.

Therefore, the trend of tourism market anti-popularization is becoming much more apparent. The traditional tour's operating model could not adapt to the changes and development of the tourism industry nowadays. In the new market environment, how to meet the personalized needs of tourists has become a major travel problem in front of every travel agency.

Analysis and Findings

Nowadays, there have been obvious signs that the role of travel agencies is getting less important gradually in many countries. In the developed countries in Europe and America represented by the United States, the tourism market appear "1: 9" -- 1 market share is taken by the international tourism, 9 by the domestic tourism; 1 market share is taken by the package tour, 9 by individual travelers. The vast majority of individual travelers would choose online tickets-booking and make their own travel plan, while only a small part of the international tourists will consider the tourist groups organized by travel agencies. In China, there has been tourism website replacing the role of traditional travel agencies. As the developing of Air-line e-commerce, the pricing is getting more flexible. Air-line companies can offer to passengers lower-priced tickets in the electronic ticketing system. This change will further impact travel agencies. With the impact in the market, how should the travel agency react? In general, the travel agencies should have a comprehensive investigation of the market, to understand the needs of the market, and then constantly improve their products and services, at the same time it is necessary to enhance the publicity on the travel agents and related products, services, and thus improve the comprehensive competitiveness of travel agencies.

Market penetration is the key for travel agency to retain customer loyalty

Market penetration strategy can be implemented by single strategy or combination of strategies including expanding the scale of production, improving product functions, increasing distribution, developing new markets, controlling product costs and concentrating superior resources, to gradually expand the market and improve market share. The core of the strategy is to develop new markets and expand existing markets.

In China's tourism market, the common market penetration strategies are the following: one is to find and excavate the potential tourism consumers, then make the potential tourists real tourists by using a series of promotions on tourism products (such as travel routes est.); two is to attract tourists from the competitions to increase sales by improving services, offering sales; three is to increase repeat customers by improving the tourism products and service, sales promotion; four is to increase the intangible value of tourism products by improving the quality of the products and services and developing new products.

In the second half of 2009, for the downturn in the Japanese market, Singapore tourism industry made a series of promotions, while taking the market penetration strategy. They successfully launched the "Happy Family Tour" and new travel packages. The "Happy Family Tour" tour package is primarily aimed at the three-generation-family in Japan. Families that took the tour had a chance to win \$5000 shopping bonus, and there would be 1500 families could win the \$75 million shopping bonus. Airlines offered half-price-tickets for children, SIA sent the Japanese their favorite "kitty cat" dolls as souvenirs, and some of the local hotels even offered free baby strollers, free children books and free red bean ice, which all added weight to the promotion's success. Eventually this tourism project attracted about 40,000 Japanese tourists -- This example shows the importance of the market penetration loud and clear.

Improve product and service quality and focus on details

There is a famous formula in the tourism industry, which is $100-1<0$. The formula tells the same theory with the wooden barrel principle, that is the tourists degree of satisfaction of the tourism service is not depending on the travel agency perfect service, but on the faults - no matter how good is the service, as long as there is a problem or an accident, travel agencies will have a overall-failure.

In order to survive and develop, it is necessary for the travel agency to Change the current supply structure of tourism products, make more effort on the product characteristics, and develop new products. First, we should focus on the needs of the tourism market, and refine the demand market according to different standards. For example, the market can be divided into three parts according to whether the tourists work or not, which are school students, working adults and the retired. Different types of group demand differently in travailing. School student have long holidays, so have time and desire to travel, but because they are underemployed and lack of travel funds, so this group prefer some economic and new tourism activities; working adults have a strong desire to travel, but with the busy work it is difficult to make much time to travel, so this group prefer to have their trip nearby - even a couple of days stay in the farmhouse would be delightful in their eyes, and cost of travel won't be a big issue for them; retired people have enough time, enough money and

strong desire, but because of their physical condition they prefer the easy tourism activities - the historical spots in Beijing and Nanjing would be their favorite destination. Market refinement can help to figure out travel needs of different tourists, so the travel products providers could handle different customers properly, provide better tourism products and services and enlarge market share.

While analyzing the demand of the tourism market, tourism products providers need to work on product innovation according to the trend on travel consumer behavior. Product innovation could be pursued in every period of the tourism products : in the period of marketing, it is crucial to keep the good quality of tourism products, which could help tourism products providers expand their visibility; In product development period, tourism products providers should further perfect and improve their products, and create famous brand products and fist products; In the mature period of tourism products, tourism products providers should win the competitive advantage through differentiation of tourism products, improve existing products and the quality of products, and increase the added value of products. According to the demand of the market and prospect of environmental and resource changes, tourist destination should try to provide a variety of tourism products, increase new products, and create new markets, in order to gain the biggest profit; in the period of recession of the tourism products, tourism products providers should face up to reality, eliminate recession products, actively improve and update the products.

Enhance marketing power and expand sales channels

Among the numerous life insurance companies in China, people are familiar with the China Life and Ping An Life Insurance, but not a life insurance company called New China Life. Actually the New China life holds the third big market share, right after China Life and Ping An life insurance. There are comprehensive reasons behind this phenomenon, not only about the products, but also historically - and one is that cannot be ignored - the different degree of input on publicity. The slogan of the image spokesperson of China life, basketball superstar Yao Ming, "I shoot for China life" is so popular among Chinese. What's the slogan of the New China life? The differences on publicity strategy of the two companies are obvious. The best sells on the market may not be the best quality products most of the time, but products good at publicity.

In order to grow better and faster, travel agencies should make full use of various traditional and new ways to strengthen publicity on travel agency, tourism products, tourism services, based on the continuous innovation of tourism products and the tourism services improvement. Tourism consumers in twenty-first Century need personalized service. The Internet with the characteristics of the constant, instant and interactive provides a unique condition to meet the needs of tourism consumers, and establish a stable "one to one" service relationship for the travel agencies to their tourists or potential customers. While providing information on travel agencies, their tourism products and services, travel agencies establish a network service on the feedback of the sales effect. Travel agents can use the impact of domestic and international websites to expand their own and their product visibility, and buy a certain advertising space on the popular sites for travel agents and travel products advertising campaign to attract the target customers and make them be the potential tourists.

Conclusion

The principle of Marx's philosophy tells us that the internal cause is the basic reason for the development and change of things, the external factor is the condition of the development of the things, and the external factors play a role through internal factors. In order to have their place in the increasingly fierce competition in the market, travel agencies need to not only improve their service quality, continuous innovate tourism products, but also strengthen the contact with all kinds of enterprises and social groups, and create a good external environment for the development of travel agencies. For travel agencies, the first task is to establish business alliances, and expand the development of travel agencies.

Faced with the combination of scenic and transport sector in the tourism market, and the impact of the tourism group, travel agents will be eliminated, if continue to stick to the previous intermediary functions. They should consider a diversified business, and cooperation with other industries to expand their product features and enhance their own strength.

In the increasingly intensive competition in the modern economy, it is difficult to stand on the market with the strength of a certain enterprise itself, so travel agencies should strengthen cooperation with the relevant industry, make full use of both sides' strengths to make up for their own shortcomings, reduce the cost of daily operations, and improve their competitiveness. In China, there have been a combination of different types of enterprises, and the cooperation between the insurance industry and the banking industry is more common, which is why we can often see some insurance companies in the bank's business offices. Today, more and more travel agencies gradually aware of the this, and begin to seek cooperation with the relevant enterprises, especially with the financial industry - develop tourism and financial products, such as travel agency liability insurance, or brewing market to get more funds. Travel agency's comprehensive characteristics decide that they could work with many different industries and carry out various business, which is mainly because tourism products are combined services to meet the needs of tourists. When tourists choose tourism products, they not only require a single service, but also a series of integrated tourism services, including accommodation, transportation. That makes travel agencies could work with other industries-running their own hotels, car companies, entertainment, etc., which not only can provide convenience for tourists, but also can bring profits.

In conclusion, travel agencies should adjust their managing patterns in time according to market needs. In order to become unbeatable, they must apply more appropriate way of management in time and in place.

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New Form of Tourist Commodities Information System: Nonlinear Shopping Experience

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Abstract

Travel planning is getting different because of the advances in technologies of computer and internet. Under this trend, more people choose backpacking as their way to travel around the world. Tourist commodities have become popular products of internet commercial. Booking airline tickets or hotels on internet are quite common for these backpackers. It is a tremendous business opportunities, however, most shops which provide tourist commodities usually sell only one product, tickets or hotels. They may provide some partners' products information or web links, but it is still not enough for a whole travel planning. The paper shows a new idea to provide all information which are needed when tourists try to make a travel plan, without limitations of planning processes, users can customize their trip by their own way, planning by their holiday dates, their interesting of attractions, the hotels they want to stay....., any single idea can be a juncture of starting a trip. This research tries to create a system that can show you how to enrich your trip step by step.

Keywords: business information system, nonlinear shopping experience, online tourist commodities selling, big data analytic.

Introduction

In the past, travel planning was not an easy job, there are so many things had to be concerned: First, you have to decide where to go; planning your schedule to fit this trip; considering how to reach your destination; choosing a good restaurant and hotel....etc. Those are things you need to survey before starting your trip, if you want everything as expected. Owing to the advances in technologies of computer and internet, those things are getting easier for us by surfing on the internet. People can visit websites to find some interesting attractions, booking tickets on airline's websites, making reservation on hotel's homepage, and then, they set forth on the journey.

It seems to be very convenience shopping tourist commodities online, except the important shopping reality experience [1] in real world, but still have some restrict for it. Most of these kind of online shops only serve one product, tickets or hotels. Sometimes they will provide some partners' products after tourists order their commodities, or sometimes they sell several products but they need to pick up them from all products. Whatever, the major

problem is there are no connections between products. All products are shown independently on the websites; and that means tourists have to spend twice as much time to survey all the products which fits their trip, if they want to purchase 2 commodities at once. Or tourists need to decide one product, and then, the website will initiatively show the next product's options. For example, there is a website who sells plane tickets as their major service, and they cooperate with some hotels to provide accommodation options. If users want get these two products at once in this website, they need to decide our flight, purchase a flight ticket, so that they can find some hotels on the site. This kind of shopping progress, which they need to buy A, and then they can choose B to arrange in groups, and so on..., is a linear progress in this research, it called linear shopping experience. There is a potential problem in linear shopping experience; users' plane is restricting by the shopping process from the online shop. If the target is very clear and just be in line with the shopping process, for example, I'm sure that I have a trip form July 1. to July 7, and the date can't be change, then, this kind of shopping experience might be good to me, I can decide my flight clipping without hesitate, and then I can follow the process to finish my shopping; but if now I just know that I have 7 days vacations and I have not decided when I'll take this vacation yet, then I'll be stuck up on the first step of linear shopping process. This is the restriction of the linear shopping process. In order to improve online tourist commodities shopping experience, this paper present a new form of shopping process: Nonlinear Shopping Experience.

Shopping Entry

Every shopping behavior started with a major product which interested users and made them decide to shop online. In this paper, it called this as a Shopping Entry (Figure 1.); this entry can be a product, a classification or information. Generally, in the case of tourist commodities shopping behaviors, this entry tends to be a date, transportation, hotel...etc., as a beginning of a sequence linear process of general tourist commodities shopping behaviors.

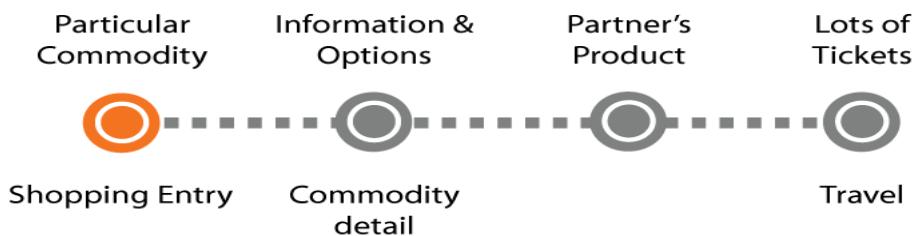


Figure 1: Traditional Linear Shopping Process

Nonlinear Shopping Experience

Nonlinear shopping experience is designed to improve online tourist commodities shopping experience, by removed the regular shopping entry; instead, all products can be an entry (Figure 2.).

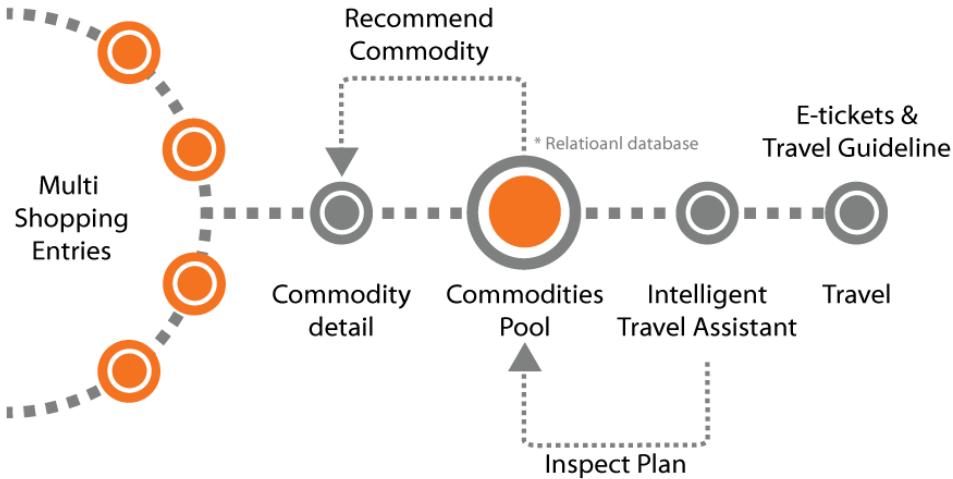


Figure 2: Nonlinear Shopping Process

In our research, users' consumption will increase due to the change of shopping entries. People who doesn't have a complete travel plan, sometimes they feel hesitate when facing traditional single entry online tourist commodities shop because they can't decide their traveling date or accommodate hotels at the moment. Nonlinear shopping process can increase their shopping intention because this system doesn't limit their choice; they can survey any kinds of tourist commodities on our site before they purchase anything. Once user decides to buy a product, system will program a list in other classifications' product that might fit this product as well. For example, Bob has a 5day holidays, no specific date. He doesn't know the exactly when he will take this trip, but looks forward to a beach resort for a long time. As a result, his demand is quite clear; the resort is the major target in this trip. He can search that resort's availability date, once he reserves the hotel, our system will program a list about suitable flight, relative tours, restaurants near by the resort and the other hotels in the region in case of he might not just want to stay in this resort. Bob can choose any kinds of suggestions from that list, and this list will dynamically change over if he makes more choices, and becomes more and more precise for his journey.

In a nutshell, this nonlinear shopping process contains some feature as follows:

- Highly DOF shopping experience.
- Precision marketing of tourist commodities.
- Package integrity inspection.
- Social network connection

To implement these features, there are some detail system structures in the following sections.

Relational Commodities Database

In order to provide dynamically travel suggestions, without any order restrictions, our commodities must be maintained in a complex relational database. Except the normal information of product (like price, content, photo...etc.), it needs to establish additional connections (metadata) between all products. In this system, it provides four categories of

tourist commodities: tickets, accommodations, tour packages and a special category POIs (point of interest). These four categories have their own data structures; this research defines their relationship between each other to ensure the shopping suggestions are useful for users when they are planning their trip. The relational database and the connections between all categories are listing in Figure 3.

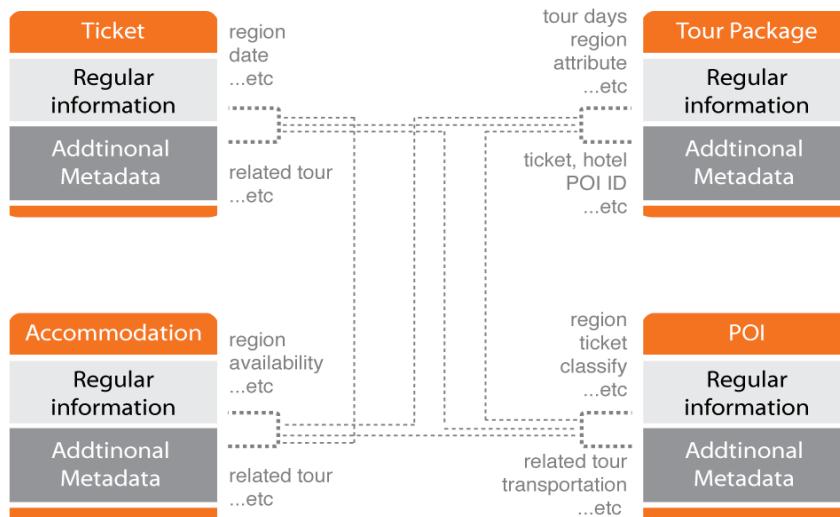


Figure 3: Relational Database Structure

Special Category POIs

POIs, point of interest, which are not actually a product; this research collects attractions' information and provides them as a product. The reason this research put POIs as a category is that there are lots of trips are planned because of the fascinating attractions: their views and their stories. In this system, it is not actually selling attraction's information, in fact, these information in this category won't be charge any fees, but it put this category as well as the other real product, are attempt to create a new shopping model, to trigger users' shopping motivation by storytelling and contents. This research sets connections with the POI's content and relational tickets, hotels and packages, users can find their interesting attractions, viewing its detail information to understand an attraction's background, introduction and stories. Once they feel this place is a good vacation attraction, they can easily start planning their trip through the following suggestions which were programed by the systems. In the other hand, users can get these POIs information as suggestions when they are browsing on the other category's commodities, make them attracted to the products.

Intelligent Travel Assistant

Because of the metadata in our commodities and POIs information, travel plan (shopping list) can be inspect automatically and intelligently. Some problem can be avoided before the trip: routes do not make sense, POI is closed in planned day, itinerary is too tight...etc., or fill the vacant time without changing the itinerary order. And finally, users can share their itinerary through our social network platform or the other social media like Twitter or Facebook with their friend.

Past Research showed that most of the consumers who decided not to consult a product recommendation during their online shopping have a less complex online shopping behavior than consumers who decided to consult the product recommendation. As a result, they have a more linear navigation pattern, visit fewer pages, visit fewer product detail pages, and revisit a smaller proportion of pages they visited in order to select a product[2]. In order to solve the problem, an intelligent travel assistant is needed.

The intelligent travel assistant is working under a cloud-computing system called Bistro, which is design by Institute for Information Industry (III, Taiwan). This service is a big data analysis platform, it integrated U.C. Berkeley BDAS [3], and Apache Hadoop [4], become a cross open source software platform (see Figure 4.).

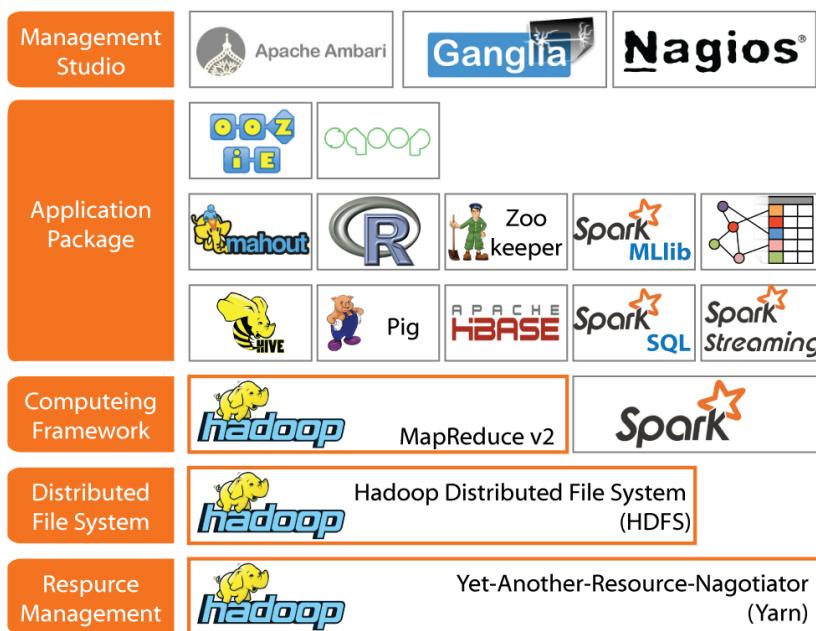


Figure 4: Bistro Structure Model

Bistro allows users inputting data sets, calculating by customized function model, generalizing and analyzing those data to get particular patterns, models, or data analysis reports. In this case, all of the metadata will be sent into Bistro's container through RESTful API, and the connections between commodities will be calculating by our model. Also, Bistro is in charge of classifying the data that social network crawler brings back, rating products and POIs and business information data analyzing.

Social Network and Zmot Shopping Experience

The shopping list that each user purchase in our system, it's also an itinerary a travel guide. In order to share, maintain and reuse these itineraries, this research creates a social network platform. Through this platform, itinerary can easily be sharing, and can be provided to other users as a template for their following trip. Each itinerary and the content inside (include POIs, tickets, hotels and our travel packages) can be comment independently. Those comments will become references and linking to the corresponding commodity. This works in concept with the ZMOT (Zero Moment of Truth [5].) shopping model that Google

published at 2011. It means in the internet world, the shopping experience changed because users can't "touch" the commodity before they buy it, under this condition, the experiences from other past users are an important factor the influence consumer willingness to buy. The system collects past users' comments as experiences, and provide to those potential customers, eliminating the process of searching user comments on the internet for customers. Lower the bounce rate of our site; attempt to keep their attention on traveling design.

Conclusions

This is a new form of tourist commodities information system; integrate tourist commodities, content-based shopping and ZMOT with social network. In order to break the traditional linear shopping process, and build a highly DOF (Degree of Freedom) shopping experience.

Non-linear shopping experience is attempting to increase consumer willingness to buy, being a travel guilder when users are programming their trip. In addition, this system can also analyze the social network and share data, define each product's popularity. Those reports can be a reference of commodities suppliers when they are trying to adjust their product. This is an experimental concept, the effect are not obviously but positive. But this model should working better if it can collect more products, POI information and user comments, the research team are trying hardly for this, and also looking forward for the growing of this business system

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Acknowledgements

This study is conducted under the "III Innovative and Prospective Technologies Project (1/1)" of the Institute for Information Industry which is subsidized by the Ministry of Economic Affairs of the Republic of China.

Using Procedural Justice Theory as a Framework to Identify & Address Students' Concerns regarding Fairness in Post-Secondary Grading

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Abstract

This paper proposes the use of procedural justice theory to identify and address students' fairness concerns with typical grading practices that professors currently use in higher education. I begin by discussing the possible merits of doing so by reviewing some of the procedural justice research conducted to date in both organizational and academic settings. I outline Leventhal's (1980) justice judgment model of procedural justice. This model includes two dimensions: the structural components that make up any process used to distribute an organizational resource based on the merit of potential recipients and the fairness rules that potential recipients will use to assess the justice of each structural component. And I note reasons why I advocate this particular model of procedural justice as a framework for identifying and addressing student concerns with post-secondary grading. In the remainder of the paper, I focus on two of justice judgment model's structural components that are critically important to grading – Selecting Decision Agents and Gathering Information. I describe how these procedural components are reflected in traditional, post-secondary assessment practices, and identify the fairness rules that students will likely focus on in each component of grading. I then offer some recommendations as to how professors might incorporate procedural justice into their grading practices in response to anticipated student concerns in these two aspects of assessment. Finally, I remark on implications of incorporating procedural justice into higher education grading practices for professors, students, and educational institutions.

Keywords: procedural justice, fairness, grading, higher education

Creative Tourists' Experience: Does it Predict Satisfaction, Nostalgia Intensity and Behavioural Intentions

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Abstract

In recent literature on creative tourism, consumers are treated as co-creators of experiences during consumption. However, most scholarly studies have focused on the management perspective. To date, few empirical studies have focused on the concept of creative tourism from tourists' perspective. This points to a need of more sophisticated analysis of creative tourism based on consumer perspectives to assess creative-tourism experiences and their consequences. This study aims to bridge this research gap by examining the effect of creative tourists' experience on their satisfaction, nostalgia intensity and behavioral intentions. A quantitative study using a self-administered questionnaire was conducted in the Malaysian states of Terengganu and Kedah. The sample comprised of 293 respondents and the purposive sampling technique was used. Creative tourists' experience was measured using a five-dimensional scale (escape and recognition, peace of mind, unique involvement, interactivity, and learning). PLS based SEM was used to analyze the data and the findings show that all five dimensions of creative tourists' experience are good predictors of their satisfaction, nostalgic intensity and behavioral intentions. The proposed model and findings can greatly help researchers and practitioners to understand the concept of creative-tourist experience and its complex relationships with their satisfaction, nostalgia intensity and behavioral intentions. Findings from this study imply that service providers should focus on designing unique, interactive, and educational activities and ensure to fulfil other psychological motives of tourists such as escape and peace of mind. This study contributes to literature by validating a five dimensional scale of creative tourists' experience and its various post-consumption consequences.

Keywords: creative tourists, customer satisfaction, nostalgia intensity, behavioral intentions.

Introduction

Consumers want service providers to stage memorable experiences that are satisfying, and such experiences benefit service providers by encouraging repeat business (Pine & Gilmore, 1998). The concept of staging memorable experiences is not new to hospitality and tourism and has been studied by various scholars (Ali & Omar, 2014; Andersson, 2007; Hosany & Witham, 2010; Hung, Lee, & Huang, 2014; Quan & Wang, 2004). The buzzword "*experience economy*" was developed because markets were saturated, and since consumer consumption patterns changed, service providers found it necessary as a new marketing strategy to ensure customer satisfaction and loyalty (Pine & Gilmore, 1998). Mehmetoglu and Engen (2011) argued that today the focus of businesses has shifted from

products to services and then to experiences. In the experience economy, consumers are offered opportunities to participate actively, to interact with the environment, thus giving them first-hand experience with creative activities (Ali, Hussain, & Ragavan, 2014; Hung et al., 2014). When consumers participate in activities using simple materials and imagination, they develop unique experiences known as “creative experience” (Richards & Wilson, 2006). These experiences usually involve activities like traditional crafts/handicrafts, gastronomy, perfume-making, porcelain painting, and dancing (Richards & Wilson, 2006); however, factors revolving around creative tourism remain unexplored (Hung et al., 2014). Moreover, most of the research into creative tourism has focused on the supply-side (service providers, tourism board, and various industry practitioners) without focusing on the perspectives of tourists themselves (Ali et al., 2015; Tan et al., 2013).

Moreover, careful review of literature shows that scholars have focused on describing the impact of experiences on post-consumption factors such as satisfaction and behavioural intentions. However, most of these studies have treated experience as a higher-order construct (Ali *et al.*, 2015; Ali *et al.*, 2014; Chen and Chen, 2010; Triantafillidou and Siomkos, 2013; Loureiro, 2014). Considering the complex nature of consumption experience (Gentile *et al.*, 2007), using it as a higher-order construct ignores the relative impact and importance of each consumption experience dimension on post-consumption outcomes (Triantafillidou & Siomkos, 2014). This may result in generalised conclusions about the role of experience on consumer behaviour without taking into consideration the multiple ways in which experience can influence consumers’ post-consumption evaluations, intentions and behaviour. A few studies in hospitality and tourism industry have observed that various dimensions of experience may have different effect on consumers’ post-consumption responses (Hosany & Witham, 2010; Manthiou *et al.* 2014). However, the relative importance of the experience dimensions during the post-consumption stage has received less rigorous attention in the literature, making room for additional research to develop an in depth understanding of the outcomes of the various experience dimensions (Triantafillidou & Siomkos, 2014). Accordingly, the present study aims at decomposing the effects of creative tourists’ experience by distinguishing the impact of each experience dimension on creative tourists during the post-consumption variables [i.e. satisfaction, nostalgia intensity and behavioural intentions].

This study contributes to the growing body of knowledge on creative tourists’ experience. The contributions of this study are twofold. First, this study is the first one to test simultaneously in a model the effects of creative tourists’ experience on variables such as satisfaction, nostalgia intensity and behavioural intentions. Second, it identifies the relative importance of each creative tourists’ experience on tourists’ evaluations and behavioural intentions, an issue largely ignored in the experience research. On a practical level, this study can provide an insight into the importance of experience for the memories, satisfaction, and behavioral intentions of creative tourists.

Literature Review

Creativity and Experience

Many scholars are trying to identify how creativity fits into various dimensions of customer experience. Tan et al. (2013) cited Rhodes (1961), who proposed the “4Ps of Creativity” including person, process, product, and environment/press, which are widely accepted as components of experience in tourism. However, for a better understanding of the interrelationship between creativity and experience, one must recognize the need for experience (Ali et al., 2015). On a similar note, Andersson (2007) proposed three types of tourist needs: basic, social, and intellectual. Among these three, intellectual experience included novelty, excitement, and challenges. Tourists must go through an experience to achieve creativity (Tan et al., 2013). Moreover, Richards (2011) postulated that service providers must use creativity to add value to tourist experience.

Some scholars have proposed various dimensions of tourist experience in different facets of tourism industry. For instance, Pine and Gilmore (1998) identified four realms of experience: entertainment, educational, esthetic, and escapist which have become the generic scale of experience (Hosany & Witham, 2010). However, for creative tourists, experiences should be unique, provide escape, and allow tourists to participate in creating the experience (Binkhorst, 2007; Hung et al., 2014; Tan et al., 2013). In this context, a recent study by Xu and Chan (2010) proposed four dimensions of tourist experience: recognition and escape, peace of mind and relaxation, involvement, and hedonics. These four constructs were originally used in the assessment of package tours for tourists coming to China. The results validated the scale, which was later confirmed by Ali et al. (2014) through assessment of experiences of guests staying at Chinese resort hotels. It is worth noting that when tourists seek escape, recognition, and relaxation, creative tourism depends heavily on tourists who are actively involved, learning about their surroundings, and applying this knowledge to develop new skills (Richards and Wilson, 2006). This is closely related to the educational experience in the experience economy (Pine & Gilmore, 1998). Hence, considering the definition and characteristics of creative tourism discussed by Richards and Wilson (2006), creative tourists’ experience was operationalised by Ali et al., (2015) as a second order construct with five primary dimensions i.e., escape and recognition, peace of mind, unique involvement, interactivity, and learning. In line with the aim of this study, these five dimensions of creative tourists experience will be adopted as individual dimensions, ignoring creative tourists’ experience as a second order construct.

Hypotheses Development

Experience is not another marketing concept but constitutes an important aspect of consumer behaviour. Consumer experience can create value not only for consumers but also for companies (Gentile et al., 2007). Moreover, experience extends beyond the core-consumption stage as consumers feel nostalgia about their satisfactory experience and engage in discussions about their personal experiences with significant others (Nicosia, 1966). Hence, it can be argued that consumption experiences carry symbolic and interpersonal meanings for consumers.

Creative tourism experiences are unique events that carry nostalgic meanings for consumers. According to Holak and Havlena (1998), nostalgia is a positively valenced emotion caused by experiences related to the past. Hence, experiences are capable of producing strong nostalgic memories (Baumgartner *et al.*, 1992), resulting in positive behavioural intentions. The literature supports various dimensions of customer experience contributing to nostalgia, satisfaction, and behavioral intentions (Ali, 2015; Hosany & Witham, 2010; Oh *et al.*, 2007; Tung & Ritchie, 2011). For instance, tourist experiences are generated in part as a result of travel that fulfils not only satisfaction but also hedonic needs while enhancing knowledge and nostalgia (Kim, 2010; Triantafillidou & Siomkos, 2014). Moreover, Tung and Ritchie (2011) conducted in-depth interviews and identified four dimensions of experiences, suggesting a positive relationship between dimensions of experiences, satisfaction, and revisit intentions. In the context of festival experiences, Manthiou *et al.* (2014) found that the entertainment, escapist and learning dimensions of the experience were positively related to the vividness of memories re-collected in the minds of attendees. The educational aspect of experience was also found to be related with fond memories of consumers during cruising (Hosany and Witham, 2010) and wine experiences (Quadri-Felitti and Fiore, 2012). Results of Oh *et al.*'s (2007) study also indicated that dimensions of customer experience were significantly related to positive memories, satisfaction, and revisit intentions (Ali *et al.*, 2014). Hence, considering escape and recognition, peace of mind, unique involvement, interactivity, and learning as five dimensions of creative tourists' experience, the following hypotheses were formulated:

- H1 (a): Escape and recognition has a significant impact on creative tourists' satisfaction.
- H1 (b): Peace of mind has a significant impact on creative tourists' satisfaction.
- H1 (c): Unique involvement has a significant impact on creative tourists' satisfaction.
- H1 (d): Interactivity has a significant impact on creative tourists' satisfaction.
- H1 (e): Learning has a significant impact on creative tourists' satisfaction.
- H2 (a): Escape and recognition has a significant impact on creative tourists' nostalgia intensity.
- H2 (b): Peace of mind has a significant impact on creative tourists' nostalgia intensity.
- H2 (c): Unique involvement has a significant impact on creative tourists' nostalgia intensity.
- H2 (d): Interactivity has a significant impact on creative tourists' nostalgia intensity.
- H2 (e): Learning has a significant impact on creative tourists' nostalgia intensity.
- H3 (a): Escape and recognition has a significant impact on creative tourists' behavioural intentions.
- H3 (b): Peace of mind has a significant impact on creative tourists' behavioural intentions.
- H3 (c): Unique involvement has a significant impact on creative tourists' behavioural intentions.
- H3 (d): Interactivity has a significant impact on creative tourists' behavioural intentions.
- H3 (e): Learning has a significant impact on creative tourists' behavioural intentions.

Moreover, nostalgia by definition results from experiences which elicit positive feelings such as satisfaction (Ali, 2015). Driven from the expectancy/ disconfirmation paradigm, a satisfactory experience is the one that exceed consumers' expectations about the benefits derived from a consumption activity (Oliver, 2010). This positive disconfirmation is an

important trigger of memorable experiences (Tung & Ritchie, 2011). The link between satisfaction and nostalgia is more evident in the tourism sector. Ritchie et al. (2011), defining memorable tourist experiences, suggested that an unforgettable event outperforms tourists' expectations. Triantafillidou and Siomkos (2014) in their recent study also tested and confirmed the significant linkage between customers' satisfaction with consumption experience and their nostalgia intensity. Hence, the following hypothesis was developed:

H4: Creative tourists' satisfaction has a significant impact on nostalgia intensity.

Unforgettable consumption experiences can lead consumers' positive behavioural intentions. In the context of service experiences, Kolesar and Galbraith (2000) found that consumers' intentions to re-experience the service will increase as their remembrances increase as well. Regarding tourist experiences, Martin (2010) showed that tourists' intentions to revisit and recommend a destination were influenced by their memories. Investigating extraordinary camping experiences, Triantafillidou and Siomkos (2013) unfolded the positive impact of the nostalgic intensity of an experience on WOM communication and re-experience intentions. Similar significant linkages between tourists' memories and their behavioural intentions is also confirmed by Ali et al., (2015). Therefore, the following hypotheses were formulated:

H5: Creative tourists' nostalgia intensity has a significant impact on behavioural intentions.

The relationship between customer satisfaction and behavioral intentions has received considerable attention in various facets of hospitality and tourism literature including wine tourism (Quadri-Felitti & Fiore, 2012), resort hotels (Ali et al., 2014; Ali, Omar, & Amin, 2013), cruise ship holidays (Hosany & Witham, 2010), heritage tourism (Chen & Chen, 2010), and restaurants (Ryu, Lee, & Kim, 2012). Within this research area, many empirical studies have reported the role of tourist satisfaction both in recommending and revisiting a destination (Ali & Amin, 2014; Kim, 2008). Hence, we propose the following hypothesis:

H6: Creative tourists' satisfaction has a significant impact on behavioural intentions.

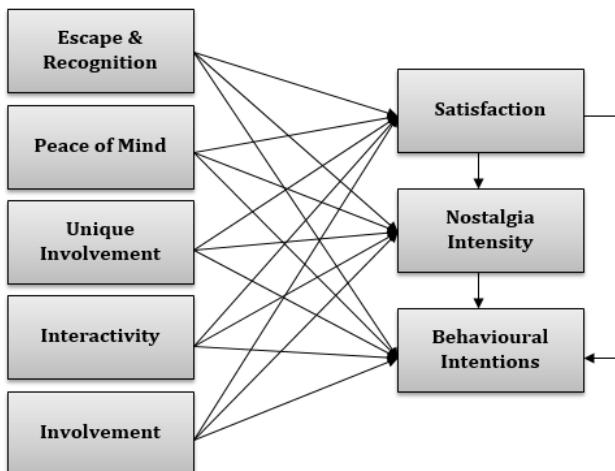


Figure 1: Research Model

Methodology

Research instrument

To measure the experience felt by creative tourists, the 22-item creative tourists' experience scale developed by Ali et al., (2015) was used. Nostalgia intensity was operationalized using 4 items (Triantafillidou & Siomkos, 2014) whereas satisfaction and behavioral intentions were operationalized using two items each (Hosany & Witham, 2010; Oh et al., 2007). All items related to creative tourist experience, nostalgia intensity and behavioral intentions were measured using a 5-point Likert scale anchored at 1 (strongly disagree) and 5 (strongly agree). Satisfaction was measured on a 5-point semantic differential scale that ranged from "dissatisfied" to "satisfied" and from "terrible" to "pleased".

Sample design and data collection

The researchers used an online survey to collect data from an online community of creative tourists who have visited Malaysia and participated in various creative activities such as cooking classes, handicraft classes, storytelling sessions of local tales, and 'batik painting'. A total of 293 questionnaires were returned, which is consistent with sample size requirements for structural equation modeling (SEM) (i.e. a minimum of 10 respondents for each item in the survey instrument) (Chin, 1998). This sample size also fulfills the condition of necessary sample size of 280 respondents considering the 90% confidence level, standard deviation of 0.5, and $\pm 5\%$ margin of error (Bulpitt, 1987). Table 1 provides the demographic profile of the respondents.

Table 1: Demographic Profile

Demographic Characteristic		%
Gender	Male	49
	Female	51
Age	Under 20 Years	3
	21 - 30 Years	31
	31 - 40 Years	48
	41 - 50 Years	19
Nationality	Malaysian	31
	Foreigners	69
Education	School	11
	Bachelor Degree	39
	Master Degree	41
	Others	9
Number of times travelled to resorts offering creative programs (past 2 years)	1 time	36
	2 - 3 Times	51
	4 - 5 Times	12
	More than 5 Times	2
Visited With	Friends	44
	Family members	39
	Colleagues	10
	Alone	7

Data Analysis

The study first applied SPSS version 21.0 to process the descriptive statistics and reliability analysis on the collected data and assess the demographic profile of the sample and the internal consistency of the constructs. As suggested by Anderson and Gerbing (1988), this study assessed the properties of measurement scales for convergent validity and discriminant validity, and constructed composite reliability by confirmatory factor analysis (CFA) followed by application of structural equation modelling (SEM) to test the hypotheses. Partial least squares (PLS) based SEM was used in this study. PLS is a well-established technique for estimating path coefficients in structural models and has been widely used in various research studies. The PLS technique has become increasingly popular in marketing and in management research more generally in the last decade because of its ability to model latent constructs under conditions of non-normality and small to medium sample sizes (Ali et al., 2015).

Findings

Measurement Model

As discussed above, to evaluate reflectively measurements models, we examine outer loadings, composite reliability, average variance extracted (AVE) and discriminant validity. First, the measurement model was tested for convergent validity. This was assessed through factor loadings, composite reliability (CR) and average variance extracted (AVE) (Hair et al., 2006). Table 2 shows that all item loadings exceeded the recommended value of 0.6. Composite reliability values, which depict the degree to which the construct indicators indicate the latent construct, exceeded the recommended value of 0.7 (Hair et al., 2006) while average variance extracted, which reflects the overall amount of variance in the indicators accounted for by the latent construct, exceeded the recommended value of 0.5 (Hair et al., 2006).

Table 2: Validity and Reliability

	Loadings	AVE	CR
Escape and Recognition (RE)		0.544	0.877
I felt escaped during the activities	0.706		
The activities made me forget my daily routine	0.732		
I felt like playing a different character during the activities	0.781		
I have been taken seriously whenever help was needed	0.705		
I felt important throughout the activities	0.783		
I felt respected throughout the activities	0.713		
Peace of Mind (PM)		0.683	0.896
Property and activities were physically comfortable	0.840		
I felt relaxed during the activities	0.844		
I felt secured during the activities	0.757		
My privacy was assured during the activities	0.860		
Unique Involvement (UI)		0.621	0.891
I was involved in something that I really liked to do	0.734		
I did something unique and memorable	0.822		
I had a “once in a lifetime” experience	0.779		
I did something new and different	0.791		
I had choice and control over the activities and their outcome	0.811		
Interactivity (I)		0.560	0.793
The staff/instructors were friendly and interactive	0.735		
The staff/instructors were knowledgeable	0.772		
The staff/instructors had ability to control the situation	0.738		
Learning (L)		0.561	0.834
The activities increased my skills.	0.827		
I learned a lot through these activities	0.663		
These activities stimulated my curiosity to learn new things	0.641		
It was a real learning experience	0.842		
Nostalgia Intensity (M)		0.531	0.819
I felt a longing for the past experience	0.689		
The experience is highly nostalgic	0.740		
The experience is a very gratifying one for me	0.713		
I have a little desire to re-experience the past	0.770		
Satisfaction (Sat)		0.790	0.882
Dissatisfied-Satisfied	0.874		
Terrible-Pleased	0.903		
Behavioural Intentions (BI)		0.848	0.917
I intend to continue visiting this resort hotel	0.936		
I will recommend this resort hotel to my friends and others	0.905		

Table 3 shows that the square root of the AVE (diagonal values) of each construct is larger than its corresponding correlation coefficients pointing towards adequate discriminant validity (Fornell & Larcker, 1981). Thus, the measurement model showed an adequate convergent validity and discriminant validity. Moreover, cross loadings were also examined as part of discriminant validity. Results showed each indicator's loadings on its own construct are, in all cases, higher than all cross loadings with other constructs. Thus, discriminant validity between all constructs based on the cross loadings criterion was also met.

Table 3: Discriminant Validity

Constructs	BI	ER	I	L	NI	PM	Sat	UI
UI	0.417	0.607	0.728	0.469	0.606	0.724	0.490	0.788
Sat	0.663	0.461	0.545	0.389	0.641	0.490	0.888	
PM	0.425	0.543	0.595	0.402	0.537	0.826		
NI	0.558	0.612	0.687	0.622	0.721			
L	0.411	0.529	0.646	0.748				
I	0.453	0.682	0.748					
ER	0.463	0.737						
BI	0.920*							

Note*: The square root of AVE of every multi-item construct is shown on the main diagonal.

Structural Model

SmartPLS 2.0 was used to test the structural model and hypotheses (Ringle et al., 2005). A bootstrapping procedure with 2000 iterations was performed to examine the statistical significance of the weights of sub-constructs and the path coefficients (Chin et al., 2008). The corrected R²s in structural model refer to the explanatory power of the predictor variable (s) on the respective construct. All the five dimensions of creative tourists' experience including escape and recognition, peace of mind, unique involvement, interactivity, and learning explain 34.8% of customer satisfaction. In addition, all five dimensions of creative tourists' experience and customer satisfaction together explain 72% of nostalgia intensity whereas all these variables explain 48.6% of their behavioural intentions. In regard to model validity, Chin et al. (2008) classified the endogenous latent variables as substantial, moderate or weak based on the R² values of 0.67, 0.33, or 0.19 respectively. Accordingly, customer satisfaction (R² = 0.348), nostalgia intensity (R² = 0.729) and behavioural intentions (R² = 0.486) can both be described as moderate, strong and moderate respectively. Moreover, the complete results of the structural model and hypotheses testing are presented in Table 4. All the hypotheses were supported indicating significant effect of exogenous variables on endogenous variables.

Table 4: Structural Estimates (Hypotheses Testing)

Hypotheses	Beta	T-Statistics	Decision
H1 Escape and Recognition -> Satisfaction	0.100	2.308*	Supported
H2 Peace of Mind -> Satisfaction	0.262	3.088**	Supported
H3 Unique Involvement -> Satisfaction	0.177	2.672**	Supported
H4 Interactivity -> Satisfaction	0.365	3.29**	Supported
H5 Learning -> Satisfaction	0.132	4.463**	Supported
H6 Escape and Recognition -> Nostalgia Intensity	0.135	2.596**	Supported
H7 Peace of Mind -> Nostalgia Intensity	0.214	3.195**	Supported
H8 Unique Involvement -> Nostalgia Intensity	0.194	2.343**	Supported
H9 Interactivity -> Nostalgia Intensity	0.118	3.978**	Supported
H10 Learning -> Nostalgia Intensity	0.265	6.53**	Supported
H11 Escape and Recognition -> Behavioural Intentions	0.162	1.981*	Supported
H12 Peace of Mind -> Behavioural Intentions	0.047	3.708**	Supported
H13 Unique Involvement -> Behavioural Intentions	0.144	3.387**	Supported
H14 Interactivity -> Behavioural Intentions	0.107	3.835**	Supported
H15 Learning -> Behavioural Intentions	0.158	2.458**	Supported
H16 Satisfaction -> Nostalgia Intensity	0.485	12.006**	Supported
H17 Nostalgia Intensity -> Behavioural Intentions	0.241	5.365**	Supported
H18 Satisfaction -> Behavioural Intentions	0.571	6.457**	Supported

* P < 0.05; ** P < 0.01

Conclusion

Creative tourists' experiences are created in their minds, who in turn evaluate, engage in actions and form future intentions about the creative activities. Delving inside the subjective nature of experience and mapping the outcomes of such experiences is a critical task for researchers and marketers wishing to delight customers through the delivery of extraordinary and memorable experiences. Tourists enjoy exploring creative activities like traditional crafts/handicrafts, gastronomy, perfume making, porcelain painting, and dancing (Hung et al., 2014; Richards & Wilson, 2006). However, the dimensions of creative tourist experiences and their consequences remain unexplored. Additionally, most of the limited number of studies of creative tourism are conceptual, from the perspectives of service providers (e.g. service providers, tourism board, various industry practitioners), with less emphasis on the tourists themselves (Tan et al., 2013). Hence, this study explored creative-tourism experiences and their impact on the nostalgia intensity, satisfaction, and behavioral intentions of tourists. This study found that five dimensions of creative-tourist experiences including escape and recognition, peace of mind, unique involvement, interactivity, and learning positively influenced nostalgia intensity, satisfaction, and behavioral intentions. By doing so, the current research enhances the understanding of the complex experience mechanisms that drive creative tourists' behaviour at the post-consumption stage.

In this study, using five primary dimensions of creative tourist experience I.e., escape and recognition, peace of mind, unique involvement, interactivity, and learning is different from existing scales in the literature. For instance, Xu and Chan (2010) proposed four factors of tourist experience (i.e. recognition and escape, peace of mind and relaxation, involvement, and hedonics) in the assessment of package tours whereas Hung et al. (2014) proposed three dimensions of creative experiences (i.e. sense of achievement, unique learning, and interaction with instructors). The differences in the dimensions used in this study and in previous studies might be attributed to the fact that this study largely adopted the dimensions of experience and learning. Scholars have suggested such dimensions in recent research in the examination of which dimensions affect the experiences of creative tourists.

In addition, the present study revealed that consumers' memory is triggered to take snapshots of experiences by specific feelings such as hedonism, escapism and involvement. In particular, pleasurable experiences can create "reward memories" to consumers. This finding supports the notion that nostalgia is a "*positively toned evocation of a lived past*" (Davis, 1979, p. 18). Moreover, nostalgia is triggered by experiences which spur consumers' fantasies and imaginations. This finding corroborates the argument of Holak and Havlena (1998 p. 218) that nostalgia "*may involve memories of the past of fantasies about a remote time or place*". Thus, consumers tend to remember experiences that help them escape from reality and imagine that they live in a different world. Nonetheless, the dimension of involvement was also found to be related to nostalgia intensity. Therefore, it can be argued that total involvement associated with a creative experience increases consumers' attention to the consumption task resulting in memory storage and recall. Although nostalgia is a function of pleasure, imagination and attention, positive remembrances of the past are in most cases hedonistic in nature. Moreover, the present

study also revealed that memorable experiences are associated with the learning aspects of the creative activities where these consumption events that evoke feelings of learning and involvement are stored in consumers' mind. In addition, peace of mind brought about by the creative activities make experiences particularly memorable and satisfying. Customer satisfaction is, of course, another important predictor of positive behavioral intentions. Our study added support to this predictor and confirmed that tourist satisfaction results in positive behavioral intentions (i.e. revisit intention and positive word-of-mouth). Satisfaction, combined with memories, however, is a much better predictor of positive behavioral intentions. The present study also confirmed the positive relationship between the dimension of interactivity and post consumption behaviour. Experiences which increase the feelings of interactivity and bolster consumers' relationships with the staff can heighten nostalgia intensity, satisfaction and positive behavioural intentions. Previous studies have shown that consumers' motives to engage in WOM communication are related to their needs for self-enhancement (Sundaram et al., 1998). It seems that consumers who experience feelings of interactivity during a consumption experience derive a sense of self-worth. Consequently, these consumers will have a higher chance of remembering the activity and be motivated to spread positive WOM to satisfy their desire for self-enhancement.

The theoretical results of this study have several implications for marketers and service providers in the industry, or at least for those linked to the provision of creative-tourism products. First, service providers offering creative-tourism products could use the creative-tourist experience instrument to help them understand the experiences of creative tourists specifically. We suggest that providers of creative-tourism products emphasize perceived escape and recognition in every detail of creative-tourism products. Tourists should be shown consistent respect throughout their visit, and such efforts can be more effective if joined with attempts to fulfill the need for escapism. For example, tourists may feel very excited and in an escapist frame of mind if they have a chance to dress up as local inhabitants or in traditional costumes used for the activities they are performing. These enjoyable and pleasant moments may serve as a catalyst to sharing their memorable experiences with others as well as to revisit.

As with all studies, this study has some limitations. Firstly, this study used the sample from creative tourists in Malaysia only, therefore, results may not be generalized. A large-scale study using sample from different countries would obviate this shortcoming. Furthermore, future research should incorporate the concept of customer involvement and flow in the current model and observe its effects on nostalgia intensity and revisit intentions. Another avenue for future research may be the study of the differences in creative-tourist perceptions and nostalgia intensity, given the differences in the tourists' sociodemographic characteristics.

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Is exchange rate stability beneficial for stabilizing consumer prices in China?

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Abstract

This study examines the relationship between real effective exchange rates (REERs) and the consumer price index (CPI) in China utilizing a bootstrap Granger full-sample causality test and a sub-sample rolling-window estimation. Considering structural changes, we assess the stability of the parameters and find that both the short-run and long-run relationships between the two estimated variables are unstable. This result suggests that full-sample causality tests cannot be relied upon. We instead employ a time-varying (bootstrap) rolling-window approach to revisit the dynamic causal relationship, and we find that the CPI is affected by the REER for several sub-samples due to the role of exchange rate pass-through (ERPT) under the managed floating exchange rate regime in China. These findings provide further proof of the impact of stable exchange rates on the maintenance of relatively steady price levels in China. The policy implication of these findings is that maintaining exchange rate stability is beneficial for controlling inflation.

Keywords: exchange rates, consumer prices, pass-through, inflation, rolling window, bootstrap, time-varying causality

Introduction

The main objective of this paper is to investigate the relationship between real effective exchange rates (REERs) and the consumer price index (CPI) in China. Consumer prices and exchange rates are two important elements used to measure a country's macroeconomic performance. It is common to figure out the direct pass-through from exchange rates to consumer prices (Sanusi, 2010). This direct approach is mainly popular owing to individual data on import prices and composition, which are generally unavailable (Sanusi, 2010). The approach can also be extended to make reference to changes in other domestic price measures (such as an intermediate price and a final price, which are on behalf of a producer price index and consumer price index) resulting from changes in exchange rates (Bhattacharya *et al.*, 2011). The exchange rate pass-through (ERPT) refers to the transmittal of the exchange rate to the import prices of goods in the destination market currency as same as to aggregate domestic prices (Ghosh and Rajan, 2007). According to Choudhri and Khan (2002), when a devaluation-inflation link exists, devaluation comes with an important cost that necessarily must be in consideration of the exchange rate policy. Furthermore, it implies that authorities can only affect the real exchange rate temporarily. On account of consumer prices rising, the initial effects of nominal depreciation on the real exchange rate are reversed. In addition to its effect on the driving device of monetary policy, the ERPT also has implications on external adjustments (Devereux *et al.*, 2006). More studies have investigated the interactions between exchange

rates and consumer prices within the so-called ERPT framework (Maswana, 2006). Choudhri and Hakura (2006) incorporated Taylor-type staggered pricing but simplified the dynamics of the exchange and wage rates in response to monetary shocks. Representing monetary policy employing a simple feedback rule, their analysis showed an association between consumer prices and exchange rates. This association originally arose because the ERPT reflects the anticipated effect of monetary shocks on current and future costs.

Since the mid-1980s in China, increasing financial liberalization has motivated a lively debate in regard to the optimum exchange rate regime. Following its economic liberalization and financial deregulation, massive inflows of funds into China in the early 1990s played a key role. These inflows are not likely to reduce because China continues to decontrol and liberalize its financial markets. External factors such as changes in exchange rates may influence consumer prices in a significant way. Within the two periods from 2005 to 2008 and from 2010 to the present, the Chinese Yuan (CNY) foreign exchange rate rose in price faster than at any other time. But the annual appreciation rate has never been bigger than 5%. The topic of global imbalances, in general, and China's exchange rate policy, in particular, is currently the "most salient of controversies in international monetary economics" (Frankel, 2010). The exchange rate has become a leading indicator for economic agents in China. It causes even a small amount of exchange rate volatility to induce self-fulfilling speculation on the black market for exchange. According to Krugman's (1999) impossible trinity, in the framework of an open economy, exchange rate stability, domestic monetary policy independence, and free capital movement cannot be obtained simultaneously. It is clear that China would open its capital market gradually. Therefore render reform of its exchange rate policy inevitably. In the long run, the central bank does not want to sacrifice economic growth or suffer from high unemployment or inflation. A low pass-through from exchange rates to consumer prices provides greater freedom for pursuing an independent monetary policy (Choudhri and Hakura, 2006). It also makes it easier to implement inflation targeting (Frankel *et al.*, 2012; Jin, 2012). As such, one could ask whether there is a close relationship between exchange rates and consumer prices, on the assumption that China's monetary authority has both price stability and exchange rate stability as its policy goals. The authority adopted a de facto fixed exchange rate regime before July 2005 and still exerted influence on the value of the exchange rates after that (Jiang and Kim, 2013). It is of interest to examine whether keeping the value of the exchange rate stable has helped to maintain consumer price stability.

Literature Review

Most empirical studies have found that in developed countries, the exchange rate has little impact on consumer prices (Choudhri *et al.*, 2005; McCarthy, 2007). While in developing and emerging market countries, the exchange rate's impact on consumer prices is often greater and occurs more rapidly than in developed countries (Goldfajn and Werlang, 2000; Calvo and Reinhart, 2002; Choudhri and Hakura, 2006). Taylor (2000) has reported that the observed decreases in the pass-through from exchange rates to consumer prices are the result of a low inflation environment. Mihaljek and Klau (2001) have indicated that the pass-through from exchange rates to consumer prices has generally been stronger than the pass-through to import prices. But it has declined since the mid-1990s, likely as a result of more stable macroeconomic conditions and structural reforms implemented in emerging

economies. Kamin and Klau (2003) have found that not only will exchange rate devaluation lead to a temporary increase in consumer prices, but if the level of the real exchange rate is maintained at its new, more depreciated level through subsequent nominal devaluations, it may lead to sustained higher consumer prices as well. Alfaro (2005) have reported that fixed exchange rates play a significant role in reducing inflation over the short term. This finding is robust even after controlling for other determinants of inflation (Reinhart and Rogoff, 2004). As emphasized by Aisen and Veiga (2006), a higher degree of political instability generates higher inflation rates. Policy makers should be aware that it is essential to reform institutions and to create viable mechanisms that are conducive to long-run price stability. Choudhri and Hakura (2006) have tested the hypothesis suggested by Taylor (2000) that a low inflationary environment leads to low pass-through from exchange rates to consumer prices. They have found that the expected effect of exchange rates on consumer prices depends on the inflation regime. Otani *et al.* (2006) have reported that the effect of the decrease in the exchange rate on Japan's import prices is largely attributable to the decrease in the exchange rate. McCarthy (2007) has found that exchange rate changes could have little impact on domestic inflation if the magnitudes of the changes in a country are small. Flamini (2007) has reported that the type and degree of pass-through from exchange rates to consumer prices play important roles in the capacity of the central bank to stabilize prices over the short term. De Grauwe and Schnabl (2008) have found similar results in southeastern and central European countries, even after controlling for other determinants of inflation. Vigfusson *et al.* (2009) have reported that the prices charged for exports to the United States are more responsive to the exchange rate than are export prices to other destinations. Adetiloye (2010) has found that the coefficient between exchange rates and consumer prices is less significant than the official rate. Imimole and Enoma (2011) have found that exchange rate depreciation has a positive and significant long-run effect on consumer prices. Madesha *et al.* (2013) have reported that the exchange rate and consumer prices have a long-run relationship. Mirdala (2014) has found that when changes in exchange rates are caused by external price shocks (i.e., an oil price shock), the low (high) degree of pass-through from exchange rates to consumer prices contributes to the transmission (absorption) of external price shocks to consumer prices, thus following the price shock distribution along the internal pricing chain. Understanding the influences on prices, especially those of consumer prices and exchange rates, where the pass-through of each to domestic consumer prices appears to have fallen in industrialized countries since the late 1980s, is of great interest to monetary policy makers, not only in inflation-targeting countries (Aron *et al.*, 2014).

The effects of exchange rates on consumer prices in China have been examined by Zhang (2000), Zhang (2001), and Phylaktis and Girardin (2001). Lu and Zhang (2003) have reported that exchange rates have little effect on consumer prices. Cheng and Liu (2007) have found that the pass-through from exchange rates to consumer prices is statistically significant. Shu and Su (2009) have found that a 10% increase in exchange rates will dampen consumer prices by 1.1% within one year. Wang and Li (2010) have reported that the degree of pass-through from exchange rates to import prices is higher than that for consumer prices, but this situation has changed significantly since August 2005. Ge (2012) has reported that REER appreciation is not able to restrain CPI but instead causes inflation over the short term. Jin (2012) has found that that a 1% devaluation in the exchange rate

leads to 0.016% CPI deflation over the short term and to 0.132% CPI inflation over the long term. Aziz *et al.* (2013) have found that the exchange rate pass-through to external prices is “full”; however, that to internal prices is “partial.” Zhang (2013) has found that the effect of exchange rates on the CPI is limited. Jiang and Kim (2013) have found that exchange rate stability plays a unique and significant role in price stability. Zhang and Qiu (2013) have found that the pass-through effects of exchange rates are limited to consumer prices. Zhou (2014) has found that the CPI is affected by exchange rates. The extent of exchange rate pass-through to consumer prices has declined in recent years (Aron, 2014; Farrell, 2014; Muellbauer, 2014; Sinclair, 2014).

Methodology

Bootstrap Full-sample Causality Test

This paper uses the RB based modified-LR statistic to examine causality between CPI and REER in China, which does with the Granger non-causality test in the bivariate VAR model framework proposed by Balcilar *et al.* (2010).

To give evidence of the RB-based modified-LR causality test, we think over the bivariate VAR (p) process as follows:

$$\begin{bmatrix} E_t \\ C_t \end{bmatrix} = \begin{bmatrix} \lambda_{10} \\ \lambda_{20} \end{bmatrix} + \begin{bmatrix} \lambda_{11}(I) & \lambda_{12}(I) \\ \lambda_{21}(I) & \lambda_{22}(I) \end{bmatrix} \begin{bmatrix} E_t \\ C_t \end{bmatrix} + \begin{bmatrix} \zeta_{1t} \\ \zeta_{2t} \end{bmatrix} \quad t = 1, 2, \dots, T \quad (1)$$

where $\zeta_t = (\zeta_{1t}, \zeta_{2t})'$ is a white noise process with zero mean and covariance matrix Σ . E_t and C_t indicate the first difference of REER and CPI, respectively. $\psi_{ij}(I) = \sum_{n=1}^{m+1} \psi_{ij,n} I^n$, $i, j = 1, 2$

and I is the lag operator defined as $I^n E_t = E_{t-n}$, $I^n C_t = C_{t-n}$. The optimal lag length p is determined by the Akaike information criterion (AIC) in this study.

Based on Equation (1), the null hypothesis that the CPI does not Granger cause the REER is tested by imposing the restriction $\psi_{12,n} = 0$ for $n = 1, 2, \dots, m$. Similarly, the null hypothesis that the REER does not Granger cause the CPI is tested by imposing the restriction $\psi_{21,n} = 0$ for $n = 1, 2, \dots, m$. As discussed, the full-sample causality tests in this paper depend on RB-based p -values and modified-LR statistics. If the first null hypothesis, $\psi_{12,n} = 0$ for $n = 1, 2, \dots, m$ is rejected, then there is significant causality running from the CPI to REER in China. This result means that the CPI can predict the REER. In a similar manner, if the second null hypothesis, $\psi_{21,n} = 0$ for $n = 1, 2, \dots, m$, is rejected, then the CPI is caused by the REER.

Parameter Stability Test

Balcilar and Ozdemir (2013) have found that the results of the full-sample causality tests would become invalid. They also have found that the causal links between the series would present instability. Granger (1996) has laid stress on the issue of parameter non-constancy

as one of the most challenging issues. As a result, tests for short-run and long-run parameter stability should be examined in this paper.

We employ the *Sup-F*, *Mean-F* and *Exp-F* tests developed by Andrews (1993) and Andrews and Ploberger (1994) to investigate the short-run stability of the parameters. We also use the fully modified ordinary least squares (FM-OLS) estimator of Phillips and Hansen (1990) to calculate the parameters of the cointegration regressions. The L_c test proposed by Nyblom (1989) and Hanson (2002) is applied to collate the stability of the long-run parameters and serve as a test of cointegration when the underlying series are $I(1)$ (Balcilar *et al.* 2010). Moreover, these tests reveal non-standard asymptotic distributions, Andrews (1993) and Andrews and Ploberger (1994) have informed critical values and p -values by dint of the parametric bootstrap procedure.

Sub-sample Rolling-window Causality Test

This study employs the rolling-window sub-samples Granger causality test grounded on the modified bootstrap estimation. Following Balcilar *et al.* (2010), the rolling-window technique is grounded on fixed-size sub-samples rolling unceasingly from the beginning to the end of the full sample. Specifically, given a fixed-size rolling window including i observations, the full sample is transformed into a sequence of $I-i$ sub-samples. That is, $t-i+1, t-i, \dots, I$ for $t=i, i+1, \dots, I$. The RB-based modified-LR causality test is then lent itself to each sub-sample instead of evaluating a single causality test for the full sample. Possible changes in the causal links between the CPI and REER in China are intuitively identified by calculating the bootstrap p -values of the observed LR statistic rolling through $I-i$ sub-samples. The impact of the REER on the CPI is defined as the average of the entire bootstrap estimates. It is rooted in the formula $V_b^{-1} \sum_{n=1}^p \hat{\psi}_{21,n}^*$, with V_b representing the number of bootstrap repetitions. In a similar manner, the impact of the CPI on the REER is derived from the formula $V_b^{-1} \sum_{n=1}^p \hat{\psi}_{12,n}^*$. Both $\hat{\psi}_{21,n}^*$ and $\hat{\psi}_{12,n}^*$ are bootstrap estimates from the VAR models in Equation (1). The 90% confidence intervals are also calculated. Its lower and upper limits equal the 5th and 95th quantiles of each of the $\hat{\psi}_{21,n}^*$ and $\hat{\psi}_{12,n}^*$ respectively (Balcilar *et al.*, 2010).

Sample

We employ monthly data from 1994: M01 to 2014: M11 to test the relationship between the REER and the CPI in China.

Data collection

The data is collected by the China Economic Information Network (CEInet) Industry Database.

Data Source

All of the data were obtained from the China Economic Information Network (CEInet) Industry Database.

Empirical Model

The framework is based on the new open-economy macroeconomic models and incorporates imperfect competition and price inertia. We consider a model of two countries, home and foreign. In this simple setting, consumer prices rely on the monetary policy regime. Assume for simplicity that the regime targets y_t denotes a fixed price set in t. The steady state path of y_t will cohere with its targeted path. Moreover, in the steady state, c_t (which denotes home consumer prices) and z_t (which denotes the M2 set in t) will grow at the same rate as y_t . We consider the following simple linearized form of the rule:

$$z_t = -\mu y_t + \xi_t \quad (2)$$

where ξ_t is a stochastic monetary shock with variance equal to σ_ξ^2 and $\mu (>0)$ is a parameter that measures the extent to which policy responds to deviations from the target.

$$y_t = \lambda_1 y_{t-1} + \lambda_2 \xi_t \quad (3)$$

where λ_1 and λ_2 depend on μ and θ . θ represents the steady-state share of home varieties in intermediates inputs. Choudhri and Hakura (2006) have demonstrated to relate the pass-through to the monetary policy regime in a simple way. We assume that exchange rates are the instrument and the feedback rule takes the following simple form:

$$e_t = z_t + \varphi E(e_{t+1} - e_t) / (1 - \varphi) = -\rho y_{t-1} + \xi_t \quad (4)$$

where e_t denotes exchange rates and φ is the discount factor. Consider the simple case where prices are set for two periods ($T=2$) and ξ_t is white noise. The model comprising Equations (2)-(4) can be expressed as the following pass-through relationship between consumer prices and exchange rates:

$$c_t = \kappa_1 c_{t-1} + \kappa_2 (e_t + e_{t-1}) / 2 \quad (5)$$

where $\kappa_1 = \lambda_1 + \rho \lambda_2$ and $\kappa_2 = \lambda_2$. The short-run ERPT (i.e., the impact of a one unit increase in e_t on c_t) equals $\kappa_2 / 2$. The pass-through over a longer period would also rely on κ_1 , which represents the degree of persistence in price. The short-run pass-through coefficient, κ_2 , responds to the effect of monetary shocks on prices set in the current period. A larger value of μ would cut down on the effect of the shocks on the expected exchange rate (through the feedback rule) and thus lower κ_2 . A larger μ would also be expected to decrease the persistence coefficient, κ_1 . Both κ_1 and κ_2 decrease μ . A larger value of μ would decrease the ERPT in both the short and long run. Thus, we employ the above model to test the relationship between REER and CPI in the long run and short run in China.

Findings

Our empirical investigation produces two noteworthy findings. First, there is no causality relationship between the two variables over the long term. A likely explanation for this result is that the Chinese exchange rate system has conducted market-oriented reforms step by step since 1994, which may have caused structural changes. Second, considering these structural changes, we find that both the short-run and long-run relationships between the two variables are unstable. Thus, we instead employ a time-varying (bootstrap) rolling-window approach to revisit the dynamic causal relationship, and we find that they have a causality relationship over the short term. According to the ERPT, the results demonstrate that the CPI in China is affected by the REER for several sub-samples. These results may be due to short-term currency appreciation, leading to further appreciation anticipation, which in turn inflates the price level. Testing the relationship between the REER and CPI in China is extremely useful for determining policy implications. The policy implication of our findings is that maintaining exchange rate stability is beneficial for controlling inflation.

Table 1. Unit Root Tests

Series	Levels			First Differences		
	ADF	PP	KPSS	ADF	PP	KPSS
CPI	-0.896(2)	-2.033(6)	1.854(2)***	-3.258(1)**	-11.109(1)***	0.309(6)
REER	-0.689(2)	-0.760(1)	1.293(2)***	-11.198(1)***	-14.731(1)***	0.205(0)

Notes: ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively. The numbers in parentheses indicate the lag order selected based on the recursive t-statistic, as suggested by Perron (1989)

Table 2. Full-Sample Granger Causality Tests

Tests	H0: REER does not Granger cause CPI		H0: CPI does not Granger cause REER	
	Statistics	p-values	Statistics	p-values
Chi-Square Test	31.764***	0.000	19.839***	0.000
Bootstrap LR Test	29.152***	0.000	18.624***	0.006

Note: *** indicates significance at the 1% level. Causality tests are based on a VAR model, with the lag length determined by the Akaike information criterion (AIC). Residual-based bootstrap LR causality tests, as suggested by Shukur and Mantalos (1997), are used to account for small-sample bias. The null hypothesis is that no causal relationship exists between the variables.

Table 3. Short-Run Parameter Stability Tests

	CPI Equation		REER Equation		VAR System	
	Statistics	Bootstrap p-value	Statistics	Bootstrap p-value	Statistics	Bootstrap p-value
Sup-F	32.080***	0.000	41.958***	0.000	47.807***	0.000
Mean-F	23.599***	0.000	25.880***	0.000	35.235***	0.000
Exp-F	13.673***	0.000	16.671***	0.000	20.634***	0.000
L_c^b					7.323***	0.005

Notes: We calculate p-values using 10,000 bootstrap repetitions. The numbers in parentheses indicate the lag order selected based on the recursive t-statistic, as suggested by Perron (1989). *** indicates significance at the 1% level.^b Hansen-Nyblom (L_c^b) parameter stability test for testing all parameters in the VAR jointly.

Table 4. Long-run Parameter Stability Tests

	Sup-F	Mean-F	Exp-F	L_c
CPI = $\alpha + \beta^*REER$	174.081***	82.684	81.978	12.402***
Bootstrap p-value	0.000	1.000	1.000	0.005

Notes: We calculate p -values using 10,000 bootstrap repetitions. The numbers in parentheses indicate the lag order selected based on the recursive t -statistic, as suggested by Perron (1989). *** indicates significance at the 1% level.

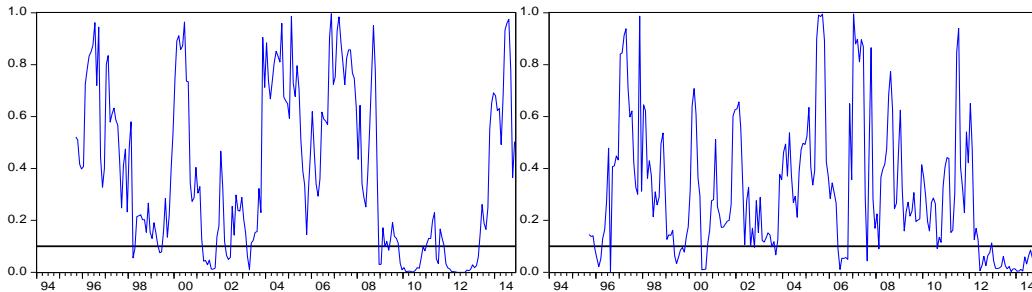


Figure 1 Panel A: Bootstrap p-value of rolling test statistic testing the null that REER do not Granger cause CPI in China

Figure 2 Panel A: Bootstrap p-value of rolling test statistic testing the null that CPI does not Granger cause REER in China

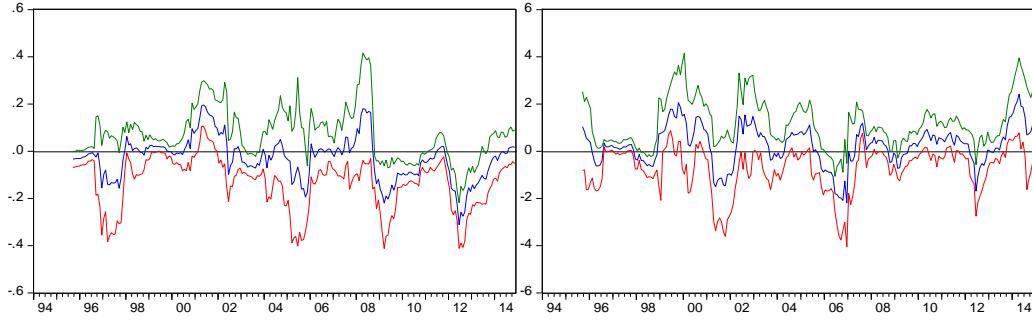


Figure 1 Panel B: Bootstrap estimates of the sum of the rolling window coefficients for the impact of REER on CPI in China

COEF_SUM_CPI	COEF_SUM_CPI_LO	COEF_SUM_CPI_UP
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Figure 2 Panel B: Bootstrap estimates of the sum of the rolling window coefficients for the impact of CPI on REER in China

COEF_SUM_REER	COEF_SUM_REER_LO	COEF_SUM_REER_UP
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Conclusions

This study investigates the relationship between the REER and CPI in China by employing a bootstrap full-sample Granger causality test and sub-sample rolling-window causality estimation. The bootstrap full-sample causality test provides evidence of a causal relationship between the two series in China in the long run. However, considering the presence of structural changes in the full-sample data, parameter stability tests reveal that both the short-run and long-run relationships between the two variables are unstable. Therefore, the full-sample causality tests with assumptions of parameter constancy and a causal relationship across the whole sample period are no longer reliable. We instead use a time-varying (bootstrap) rolling-window approach to revisit the dynamic causal relationship between the two variables. We find that the CPI is affected by the REER for several sub-periods due to the role of the ERPT under the managed floating exchange rate regime in China. Following China's economic restructuring from a planned economy to a market-based economy, especially in the exchange rate system, the market-based pricing system is playing an increasingly important role in resource allocation. REER appreciation is not able to restrain inflation; in contrast, it causes inflation. This result may be due to short-term currency appreciation, which leads to further appreciation anticipation, which

in turn raises price levels. As a country with a more stable exchange rate policy relative to its neighbors, it is more likely that foreign exporters will set their prices in China's currency, which will help to stabilize China's price level. These findings provide further proof of the value of stable exchange rates for the maintenance of a relatively steady price level in China. The policy implication of these findings is that maintaining exchange rate stability is beneficial for controlling inflation.

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Extreme Learning Machine based a Three Dimensional Wavelet Co-Movement Analysis with Applications in the Financial Time Series Volatility Prediction

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Abstract

In this paper, we propose a model called WELM based on a 3-D Wavelet Dynamic Co-Movement Analysis and Extreme Learning Machine to model and forecast the volatility of financial time series. The forecasts obtained by WELM have been compared with ELM, Kernel-based ELM, SVM and GARCH type models in terms of closeness to the realized volatility. The computational results demonstrate that the WELM provides better time series volatility forecasts and it shows the excellent performance in the accuracy and efficiency.

Keywords: extreme learning machine, wavelet analysis, high dimensional space, volatility, GARCH models

Introduction

In the Era of Big Data, forecasting and modeling the volatility of financial time series has been the subject of empirical studies and theoretical investigation (Hajizadeh et al., 2012). The characteristics of big data is high dimensional, complex or unstructured, massive, heterogeneous, incomplete, noisy, and erroneous (Berman, 2013). What is more, the trouble with seeking a meaningful needle in massive haystacks of data, says Trevor Hastie, is that many bits of straw look like needles (Li et al., 2001). Consequently, we need to get rid of the irrelevant features and to pick out the decisive features which can reflect the whole time or most in time domains and cover a wide range of frequencies in frequency domains and have a high strength both in time frequency domains. Wavelet co-movement analysis has the advantage of showing the correlation in both time and frequency domains and strength analysis even functioning quite well with both stationary and non-stationary time series in high-dimensional space (Loh, 2013). The intuition that high dimensional data are most likely to lie in or close to only a few intrinsic degrees of freedom than the ambient dimension would suggest, it is probable for us to estimate the inherent relationships of high-dimensional data in the lower dimensional space by wavelet co-movement analysis (Farge, 1992; Torrence and Compo, 1998; Grinsted et al., 2004; Kaiser and Hudgins, 2008; Rua, 2010). Volatility is usually measured by standard deviation or variance (Daly, 2008). Volatility, with respect to financial products, can be thought of as a measure of fluctuation in a financial security price around its expected value. Volatility has become a very

important concept in different areas of financial engineering, such as multi period portfolio selection, risk management, and derivative pricing.

Literature Review

The most widely used model for estimating volatility is Auto Regressive Conditional Heteroscedasticity (ARCH) model (Engle, 1982). A lot of research has been carried out on extensions of the original ARCH model among which GARCH (Bollerslev, 1986), EGARCH (Nelson, 1991) and other GARCH-type models are the most frequently used models. These parametric models have been extensively used in finance and economics [9]. Such times series models with heteroscedastic errors are specifically applicable to modeling financial market data which are highly volatile. Although, many financial time series observations have non-linear dependence structure, a linear correlation structure is usually assumed among the time series data. Therefore, GARCH type models may not capture such nonlinear patterns and linear approximation models of those complex problems may not be satisfactory (Hajizadeh et al., 2012).

Nonparametric models estimated by various methods such as machine learning. For example, Artificial Neural Networks (ANNs) have been playing the dominant roles because of its benefits on generalization, flexibility, non-linearity, fault tolerance, self-organization, adaptive learning, and computation in parallel. Except for ANNs, there are a lot of machine learning variations, such as Support Vector Machine (SVM) (Cortes and Vapnik, 1995), Deep Belief Networks (DBN) (Hinton et al., 2006), the Restricted Boltzmann machine (RBM) (Hinton, 2002), Convolutional neural networks (CNNs) (LeCun et al., 1989), etc. Recently, extreme learning machine (ELM) has attracted more and more attention in machine learning, which was originally developed for the single hidden layer feedforward networks (SLFN) instead of the classical gradient-based algorithms, and extended to the generalized SLFN that need not be the neuron alike (Huang et al., 2006). The essence of ELM is that: When the input weights and the hidden layer biases are randomly assigned, the output weights can be computed by the generalized inverse of the hidden layer output matrix (Huang et al., 2012).

In this paper, we come up with a model called WELM based on a 3-D Wavelet Dynamic Co-Movement Analysis and Extreme Learning Machine for the big data. We first pick out the decisive features by 3-D Wavelet Co-Movement Analysis, and then employ ELM to forecast the volatility of time series, and the relevant mathematical criterion of the model selection will also be developed for the performance improvements.

Methodology (WELM Model)

The basic idea of the proposed method is that 3-D Wavelet Dynamic Co-Movement Analysis is firstly employed to pick out decisive features, and then ELM is utilized to train and forecast the whole process. In this paper, employing 3-D Wavelet Dynamic Co-Movement Analysis, we pick out the decisive features which can reflect the whole time or most time domains and cover a wide range of frequencies in frequency domains and have a high strength both in time frequency domains as the input of ELM learning.

ELM learning

Let the time series set $Z_{I:T,i} = [z_{i1}, \dots, z_{iT}, \dots, z_{iN}]$ as an input in the train set for 3-D Wavelet Dynamic Co-Movement Analysis contain T samples, $t = 1, \dots, T$. $Z_{I:T,i}$ belongs to the original features set $Z_t = \{Z_{t1}, \dots, Z_{ti}, \dots, Z_{tN}\}$ as an input in the train set or the test set composed of N features for ELM learning, $i = 1, \dots, N$. After selecting features by 3-D Wavelet Dynamic Co-Movement Analysis, the decisive features can be written as $Z_t' = \{Z'_{t1}, \dots, Z'_{tj}, \dots, Z'_{tM}\}$ in a new lower-dimensional space, $t = 1, 2, \dots, T$ and $1 \leq j \leq M, M \leq N$. Let the decisive features set $Z_t' = \{Z'_{t1}, \dots, Z'_{tj}, \dots, Z'_{tM}\}$ range from tr_{\min} to tr_{\max} , each feature Z'_{tj} in Z_t' can be mapped into a normalized feature Z''_{tj} by calculating $Z''_{tj} = (Z'_{tj} - tr_{\min}) / (tr_{\max} - tr_{\min})$, $t = 1, \dots, T, j = 1, \dots, M$, the normalized decisive features can be written as $Z''_t = \{Z''_{t1}, \dots, Z''_{tj}, \dots, Z''_{tM}\}$. Once a set of SLFNs is reasonably established via ELM leaning with the help of 3-D Wavelet Dynamic Co-Movement Analysis, the normalized decisive features set can then be fed into the SLFN as the training set or the test set. The normalized training set can be written as $Z''_t = \{Z''_{t1}, \dots, Z''_{tj}, \dots, Z''_{tM}\}$, $t = 1, \dots, T - c - 1$ and c is constant. In general, ELM is to minimize the training error as well as the norm of the output weights:

$$\text{Minimize: } \|\tilde{H}\beta'' - S\|^2 \text{ and } \|\beta''\| \quad (1)$$

where \tilde{H} is the hidden-layer output matrix

$$\tilde{H} = \begin{bmatrix} h_1(Z''_{11}) & \cdots & h_p(Z''_{1M}) \\ \vdots & \ddots & \vdots \\ h_1(Z''_{T1}) & \cdots & h_p(Z''_{TM}) \end{bmatrix} = \begin{bmatrix} g(a_1 \times Z''_{11} + b_1) & \cdots & g(a_p \times Z''_{1M} + b_p) \\ \vdots & \ddots & \vdots \\ g(a_1 \times Z''_{T1} + b_1) & \cdots & g(a_p \times Z''_{TM} + b_p) \end{bmatrix}_{M \times p} \quad (2)$$

Seen from (2), to minimize the norm of the output weights $\|\beta''\|$ is actually to maximize the distance of the separating margins of the two different classes in the ELM feature space: $2/\|\beta''\|$.

The minimal norm least square method instead of the standard optimization method was used in the original implementation of ELM:

$$\beta'' = \tilde{H}^\dagger S \quad (3)$$

where \tilde{H}^\dagger is the Moore-Penrose generalized inverse of matrix \tilde{H} . The orthogonal projection method can be used in two cases: when $\tilde{H}^T \tilde{H}$ is nonsingular and $\tilde{H}^\dagger = (\tilde{H}^T \tilde{H})^{-1} \tilde{H}^T$, or when $\tilde{H}^T \tilde{H}$ is nonsingular and $\tilde{H}^\dagger = \tilde{H}^T (\tilde{H} \tilde{H}^T)^{-1}$. If the Number of Training Samples is Not Huge, then we can get

$$\beta'' = \tilde{H}^T (\frac{1}{C} + \tilde{H} \tilde{H}^T)^{-1} S \quad (4)$$

If the Number of Training Samples is Huge and we have:

$$\beta'' = (\frac{1}{C} + \tilde{H}^T \tilde{H})^{-1} \tilde{H}^T S \quad (5)$$

Model selection

The purpose is to generate multiple versions of ELM learning from different perspective. The decision is mainly made for the following parameters, i.e., the number of the window sizes U_α , $1 \leq U_\alpha \leq T$, the number of the hidden nodes P_μ , $1 \leq P_\mu \leq P_{\mu_{\max}}$ and the dimensionality D_γ , $1 \leq D_\gamma \leq N$. Learning model of each SLFN in the ELM ensemble can be written as follows:

$$s_{t+1}(U_\alpha, D_\gamma, P_\mu) = f_{P_\mu}(Z_t) = h(Z_t) \beta^* \quad (6)$$

where $t = T - c, \dots, T - 1, T$, $1 \leq P_\mu \leq P_{\mu_{\max}}$. β^* is the vector of the output weights between the hidden layer of P_μ nodes and the output node in the low dimensional space. $h(Z_t)$ is the output (row) vector of the hidden layer with respect to the input Z_t in the low dimensional space from the training set.

A collection of the component SLFNs is organized into the ELM ensemble to seek a better expression of the low-dimensional space. Theoretically, the model selection of the ELM ensemble architecture is as follows.

The decision of the dimensionality D_γ

In the ELM ensemble, when the U_α and the P_μ are fixed, a set of actual training output $S = \{s(U_\alpha, 1, P_m), \dots, s(U_\alpha, D_\gamma, P_m), \dots, s(U_\alpha, N, P_m)\}$ in different kinds of SLFNs, mathematically correlated with the parameters D_γ , will be obtained from the time series set $Z_{I:T,i} = [z_{i1}, \dots, z_{in}, \dots, z_{iT}]$, $t = 1, \dots, T$. In this paper, employing the wavelet power spectrum $|F_{Z_{I:T,i} Z_{I:T,0}}(\tau, \lambda)|^2$ and the wavelet coherency $\Gamma_{Z_{I:T,i} Z_{I:T,0}}(\tau, \lambda)$, we pick out the decisive features. Therefore, the decisive features can determine the dimension D_γ .

Wavelet power spectrum. In this paper, we define a wavelet power spectrum $|F_{X_{I:T,j}}(\tau, \lambda)|^2$ for the time series set $Z_{I:T,i} = [z_{i1}, \dots, z_{in}, \dots, z_{iT}]$, $t = 1, \dots, T$ is

$$|F_{Z_{I:T,i}}(\tau, \lambda)|^2 = F_{Z_{I:T,i}}(\tau, \lambda) F_{Z_{I:T,i}}^*(\tau, \lambda) \quad (7)$$

From the CWT of the time series, one can construct the cross wavelet transform (XWT). We can similarly define a cross-wavelet transform of the time series set $Z_{I:T,i} = [z_{i1}, \dots, z_{in}, \dots, z_{iT}]$ and $Z_{I:T,0} = [z_{01}, \dots, z_{0n}, \dots, z_{T0}]$, $t = 1, \dots, T$ as $F_{Z_{I:T,i} Z_{I:T,0}}(\tau, \lambda) = F_{Z_{I:T,i}}(\tau, \lambda) F_{Z_{I:T,0}}^*(\tau, \lambda)$.

The cross-wavelet power spectrum can be a measure of the localized covariance between the time series $Z_{I:T,i}$ and $Z_{I:T,0}$ for the specified frequency, which is accordingly written as:

$$|F_{Z_{I:T,i} Z_{I:T,0}}(\tau, \lambda)|^2 = |F_{Z_{I:T,i}}(\tau, \lambda)|^2 |F_{Z_{I:T,0}}^*(\tau, \lambda)|^2 \quad (8)$$

If wavelet power spectrum $|F_{Z_{I:T,i} Z_{I:T,0}}(\tau, \lambda)|^2 \leq 0.5$, the feature $Z_{I:T,i}$ will be deleted.

Wavelet coherency. The spectral density functions are $R_{Z_{I:T,i}}(\Theta)$, $i = 1, 2, \dots, N$, $t = 1, \dots, T$ and $R_{Z_{I:T,0}}(\Theta)$, $t = 1, 2, \dots, T$, $-\pi \leq \Lambda < \pi$, and the co-spectrum is $E_{X_{I:T,i} X_{I:T,0}}(\Theta)$ of the time series

$Z_{I:T,i}$ and $Z_{I:T,0}$. In this paper, we define dynamic correlation for the time series set $Z_{I:T,i} = [z_{i_1}, \dots, z_{i_n}, \dots, z_{i_T}], t=1, \dots, T$ is

$$\rho_{Z_{I:T,i} Z_{I:T,0}}(\Theta) = \frac{E_{Z_{I:T,i} Z_{I:T,0}}(\Theta)}{\sqrt{R_{Z_{I:T,i} Z_{I:T,0}}(\Theta) R_{Z_{I:T,i} Z_{I:T,0}}(\Theta)}} \quad (9)$$

We define the spectral decomposition of the time series $Z_{I:T,i}$ and $Z_{I:T,0}$:

$$Z_{I:T,i} = \int_{-\pi}^{\pi} e^{ivt} dI_{Z_{I:T,i}}(\Theta) \quad Z_{I:T,0} = \int_{-\pi}^{\pi} e^{ivt} dI_{Z_{I:T,0}}(\Theta) \quad (10)$$

where $dI_{Z_{I:T,i}}(\Theta)$ and $dI_{Z_{I:T,0}}(\Theta)$ are orthogonal increment processes.

As is well known, the spectral and cross-spectral density functions of the time series $Z_{I:T,i}$ and $Z_{I:T,0}$ are related to the above representation:

$$\begin{aligned} R_{Z_{I:T,i}}(\Theta) &= \text{var}(e^{ivt} dI_{Z_{I:T,i}}(\Theta)) = \text{var}(dI_{Z_{I:T,i}}(\Theta)) \\ R_{Z_{I:T,0}}(\Theta) &= \text{var}(e^{ivt} dI_{Z_{I:T,0}}(\Theta)) = \text{var}(dI_{Z_{I:T,0}}(\Theta)) \\ CS_{Z_{I:T,i} Z_{I:T,0}}(\Theta) &= \text{cov}(dI_{Z_{I:T,i}}(\Theta) dI_{Z_{I:T,0}}(\Theta)) \end{aligned} \quad (11)$$

If the time series $Z_{I:T,i}$ is real, then $dI_{Z_{I:T,i}}(\Theta) = d\bar{I}_{Z_{I:T,i}}(-\Theta)$, so:

$$e^{ivt} dI_{Z_{I:T,i}}(\Theta) + e^{-ivt} dI_{Z_{I:T,i}}(-\Theta) = 2 \cos(\Theta t) dJ_{Z_{I:T,i}}(\Theta) - 2 \sin(\Theta t) dV_{Z_{I:T,i}}(\Theta) \quad (12)$$

where $dJ_{Z_{I:T,i}}$ and $dV_{Z_{I:T,i}}$ are the real and the imaginary part of the orthogonal increment processes $dI_{Z_{I:T,i}}$. So we can calculate $\rho_{Z_{I:T,i} Z_{I:T,0}}(\Theta)$ according to this.

Similarly, in this paper, we define the wavelet coherency for the time series set $Z_{I:T,i} = [z_{i_1}, \dots, z_{i_n}, \dots, z_{i_T}], t=1, \dots, T$ is

$$\Gamma_{Z_{I:T,i} Z_{I:T,0}}(\tau, \lambda) = \frac{F_{Z_{I:T,i} Z_{I:T,0}}(\tau, \lambda)}{\sqrt{F_{Z_{I:T,i}}(\tau, \lambda) F_{Z_{I:T,0}}(\tau, \lambda)}} \quad (13)$$

and

$$\begin{aligned} \Gamma_{Z_{I:T,i} Z_{I:T,0}}^2(\tau, \lambda) &= \frac{[\Re F_{Z_{I:T,i} Z_{I:T,0}}(\tau, \lambda)]^2 + [\Im F_{Z_{I:T,i} Z_{I:T,0}}(\tau, \lambda)]^2}{F_{Z_{I:T,i}}(\tau, \lambda) F_{Z_{I:T,0}}(\tau, \lambda)} \\ &= \frac{|L(\lambda^{-1} F_{Z_{I:T,i} Z_{I:T,0}}(\tau, \lambda))|^2}{L(\lambda^{-1} |F_{Z_{I:T,i}}(\tau, \lambda)|^2) \cdot L(\lambda^{-1} |F_{Z_{I:T,0}}(\tau, \lambda)|^2)} \end{aligned} \quad (14)$$

The functions $\Re F_{Z_{I:T,i} Z_{I:T,0}}(\tau, \lambda)$ and $\Im F_{Z_{I:T,i} Z_{I:T,0}}(\tau, \lambda)$ in (14) are respectively the real and imaginary parts of $F_{Z_{I:T,i} Z_{I:T,0}}(\tau, \lambda)$. Hence the co- and quadrature- wavelet spectra of the time series $Z_{I:T,i}$ and $Z_{I:T,0}$. L is a smoothing operator. Smoothing is achieved by convolution in time and frequency domain. We define the smoothing operator L as:

$$L(F) = L_s(L_t(F(\tau, \alpha))) \quad (15)$$

where L_o is smoothing along the wavelet scale axis and L_t smoothing in time. For the Morlet wavelet, a suitable smoothing operator is given

$$\begin{aligned} L_o(F)|_{\lambda} &= (F(\tau, \lambda) * \ell_1^{\frac{-t^2}{\lambda^2}})|_{\lambda} \\ L_t(F)|_{\lambda} &= (F(\tau, \lambda) * \ell_2 \Pi(0.6\lambda))|_t \end{aligned} \quad (16)$$

where ℓ_1 and ℓ_2 are normalization constants and Π is the rectangle function. The statistical significance level of the wavelet coherence is estimated using Monte Carlo methods.

The squared wavelet coherency $\Gamma_{z_{I:T,i} z_{I:T,o}}^2(\tau, \lambda)$ varies between 0 and 1, with a high value showing strong co-movement between time series, and vice versa. Therefore a graph of wavelet squared coherency will show regions in the time–frequency space. Zero coherency indicates no co-movement while the highest coherency implies the strongest co-movement between time series. If wavelet coherency $\Gamma_{z_{I:T,i} z_{I:T,o}}^2(\tau, \lambda) \leq 0.5$, the feature $Z_{I:T,i}$ will be deleted.

Discretization. In this paper, when the time series set $Z_{I:T,i} = [z_{i1}, \dots, z_{in}, \dots, z_{iT}]$, $t = 1, \dots, T$ with uniform time steps Δt is discrete, the CWT is defined as the convolution of the discrete time series $Z_{I:T,i}$ at time t and a scaled λ with the Morlet wavelet $\varphi_0(t)$:

$$F_{z_{I:T,i}}(\tau, \lambda) = \sqrt{\frac{\Delta t}{\lambda}} \sum_{t=1}^N Z_{I:T,i,t} \varphi_0[(t - \tau) \frac{\Delta t}{\lambda}] \quad (17)$$

where N is the number of points in the time series. By varying the wavelet scale λ and translating along the localized time index t , one can construct a picture showing both the amplitude of any features versus the scale and how this amplitude varies with time.

To approximate the continuous wavelet transform, the convolution (17) should be done N times for each scale, where N is the number of points. By choosing N points, the convolution theorem allows us do all N convolutions simultaneously in Fourier space employing a Discrete Fourier Transform (DFT). The DFT of the discrete time series $Z_{I:T,i}$ is:

$$\hat{Z}_{I:T,i}(k) = \frac{1}{N} \sum_{t=1}^N Z_{I:T,i,t} e^{-2\pi i k t / N} \quad (18)$$

where $k = 1 \dots N$ is the frequency index.

In the continuous limit, the Fourier transform of a function $\varphi(t/\lambda)$ is given by $\hat{\varphi}(\lambda\omega)$. According to the convolution theorem, the wavelet transform is the inverse Fourier transform of the product:

$$F_{z_{I:T,i}}(\tau, \lambda) = \sum_{k=1}^N \hat{Z}_{I:T,i}(k) \hat{\varphi}^*(\lambda\omega_k) e^{i\omega_k \tau} \quad (19)$$

where the $(*)$ indicates the complex conjugate, and $\hat{\varphi}(\lambda\omega_k) = \sqrt{\frac{2\pi\lambda}{\Delta t}} \hat{\varphi}_0(\lambda\omega_k)$ and

$\sum_{k=1}^N |\hat{\varphi}(\lambda\omega_k)|^2 = N$, N is the number of points. The angular frequency ω_k is defined as:

$$\varpi_k = \begin{cases} \frac{2\pi k}{Nt} & k \leq \frac{N}{2} \\ -\frac{2\pi k}{Nt} & k > \frac{N}{2} \end{cases} \quad (20)$$

Employing (19) and a standard Fourier transform routine, one can calculate the continuous wavelet transform (for a given λ) at all t simultaneously and efficiently.

The choose of the number of hidden nodes P_μ

When the number of the window sizes U_α and the dimensionality D_r are fixed, training ELM is Divided into two kinds of cases.

If the Number of Training Samples is Not Huge. The number of hidden nodes P_μ can be much smaller than the number of training samples, the computational cost reduces dramatically. We have

$$\beta'' = \tilde{H}^T \left(\frac{I}{C} + \tilde{H}\tilde{H}^T \right)^{-1} S \quad (21)$$

The output function of ELM is

$$s_{t+1}(U_\alpha, D_r, P_\mu) = f(Z_t'') = h(Z_t'')\beta'' = h(Z_t'')\tilde{H}^T \left(\frac{I}{C} + \tilde{H}\tilde{H}^T \right)^{-1} S \quad (22)$$

where $1 \leq t \leq T - c - 1$, $1 \leq P_\mu \leq P_{\mu_{max}}$.

The kernel matrix of ELM can be defined as follow. Let $\Xi_{ELM} = \tilde{H}\tilde{H}^T : \Xi_{ELM i,j} = h(Z_{ti}'')h(Z_{tj}'') = K(Z_{ti}'', Z_{tj}'')$. The output function of ELM can be written compactly as:

$$\begin{aligned} s_{t+1}(U_\alpha, D_r, P_\mu) &= f(Z_t'') = h(Z_t'')\beta'' = h(Z_t'')\tilde{H}^T \left(\frac{I}{C} + \tilde{H}\tilde{H}^T \right)^{-1} S \\ &= \begin{bmatrix} K(Z_t'', Z_{t1}'') \\ \dots \\ K(Z_t'', Z_{TM}'') \end{bmatrix}^T \left(\frac{I}{C} + \Xi_{ELM} \right)^{-1} S \end{aligned} \quad (23)$$

If the Number of Training Samples is Huge. If the number of training data is very large, for example, it is much larger than the dimensionality of the feature space, we have an alternative solution. We have

$$\begin{aligned} \beta'' &= C\tilde{H}^T \xi \\ \xi &= \frac{1}{C}(\tilde{H}^T)^\dagger \beta'' \\ \tilde{H}^T(\tilde{H} + \frac{1}{C}(\tilde{H}^T)^\dagger)\beta'' &= \tilde{H}^T S \\ \beta'' &= \left(\frac{1}{C} + \tilde{H}^T \tilde{H} \right)^{-1} \tilde{H}^T \tilde{H} \end{aligned} \quad (24)$$

The output function of ELM can be written compactly as:

$$s_{t+1,D_r}(U_\alpha, D_r, P_\mu) = f(Z_t) = h(Z_t)\beta = h(Z_t)(\frac{I}{C} + \tilde{H}^T \tilde{H})^{-1} \tilde{H}^T \tilde{H} \quad (25)$$

where $1 \leq t \leq T - c - 1$, $1 \leq P_\mu \leq P_{\mu\max}$.

The decision of the window sizes U_α .

When the number of hidden nodes P_μ and the dimensionality D_r are fixed, the decision of the window sizes U_α depend on the the nature of the data and the objective of the research.

Sample

The empirical investigation is based on 5931 daily observations on index returns of the Shenzhen composite index, which began April 3, 1991, with a base price of 100. The data are from 3 April 1991 to 31 May 2015.

Data collection

The data is collected by CSMAR database.

Data Source

The data are obtained from CSMAR database.

Empirical Model

Given N training samples $(z_i, s_i)_{i=1}^N$, where $z_i = [z_{i1}, z_{i2}, \dots, z_{im}]^T$ and $s_i = [s_{i1}, s_{i2}, \dots, s_{in}]^T$, the standard model of the ELM learning (Huang *et al.*, 2006;2012) can be written as the following matrix format:

$$H\beta = S \quad (26)$$

where

$$\begin{aligned} & H(a_1, \dots, a_N, b_1, \dots, b_p, z_1, \dots, z_N) \\ &= \begin{bmatrix} h(z_1) & \dots & h(z_1) \\ \vdots & \vdots & \vdots \\ h(z_N) & \dots & h(z_N) \end{bmatrix} = \begin{bmatrix} g(a_1 \times z_1 + b_1) & \dots & g(a_L \times z_1 + b_p) \\ \vdots & \vdots & \vdots \\ g(a_1 \times z_N + b_1) & \dots & g(a_L \times z_N + b_p) \end{bmatrix}_{N \times p} \quad (27) \\ & \beta = [\beta_1, \beta_2, \dots, \beta_p]_{m \times p}^T, \quad S = [s_1, s_2, \dots, s_N]_{m \times N}^T \end{aligned}$$

where $a_i = [a_{i1}, a_{i2}, \dots, a_{im}]^T$ is the weight vector connecting the i th hidden neuron and the input neurons, b_i is the threshold of the i th hidden node. $\beta_i = [\beta_1, \beta_2, \dots, \beta_L]^T$ denotes the weight vector connecting the i th hidden node and the output nodes, and there are P hidden neurons with the activation function $g(z)$. H is called the hidden layer output matrix of the neural network, which can be easily obtained on condition that the training set is available and the parameters (a_i, b_i) are randomly assigned. The output weights are calculated as:

$$\hat{\beta} = H^\dagger S \quad (28)$$

where H^\dagger is the Moore-Penrose generalized inverse of matrix H .

Findings

Table 1: Volatility estimation results

	MAE1	RMSE1	Training time	MAE2	RMSE2	Test time
GARCH	2.956	3.713	-	4.427	5.735	-
IGARCH	3.213	3.881	-	4.533	5.7	-
RISKM	2.704	3.955	-	4.375	6.272	-
GJR	2.811	3.663	-	4.458	5.789	-
EGARCH	2.7	3.893	-	4.371	6.219	-
APARCH	2.701	3.696	-	4.367	5.806	-
FIGARCH-BBM	2.722	4.026	-	4.402	6.424	-
FIGARCH-CHUNG	2.713	3.929	-	4.381	6.311	-
HYGARCH	2.698	3.708	-	4.365	5.999	-
FIAPARCH-BBM	2.706	4.052	-	4.408	6.523	-
FIAPARCH-CHUNG	2.698	3.971	-	4.392	6.435	-
ELM	1.4688	2.2408	0.7154	1.7976	2.3030	0.0034
ELM- linear kernel	1.4660	2.2383	1.8509	1.6808	2.2465	9.9856e-04
ELM- RBF kernel	1.4602	2.2337	2.4188	1.7963	2.4377	0.0043
ELM- poly kernel	1.4700	2.2452	3.1723	1.9470	2.3996	0.0112
ELM- wave kernel	1.4677	2.2424	3.1690	1.9610	2.4145	0.0110
SVM	1.4562	2.2495	3.5897	1.8286	2.4484	0.0468
Results of WELM (after deleting the feature of RMB/SUD)						
WELM	1.4681	2.2405	0.6658	1.7881	2.2935	3.1200e-04
WELM- linear kernel	1.4663	2.2384	1.8249	1.6625	2.2271	8.8108e-04
WELM- RBF kernel	1.4626	2.2349	2.3874	1.7526	2.3640	0.0043
WELM- poly kernel	1.4700	2.2452	3.0039	1.9470	2.3996	0.0091
WELM- wave kernel	1.4691	2.2437	3.1396	1.9466	2.4004	0.0094
Results of WELM (after deleting the feature of RMB/SUD and HKD/RMB)						
WELM	1.4672	2.2406	0.6777	1.7934	2.2994	6.2400e-04
WELM- linear kernel	1.4656	2.2384	1.7796	1.6717	2.2359	8.6401e-04
WELM- RBF kernel	1.4662	2.2364	2.4183	1.6498	2.2767	0.0042
WELM- poly kernel	1.4700	2.2452	3.0906	1.9470	2.3996	0.0085
WELM- wave kernel	1.4693	2.2434	3.0773	1.9423	2.3937	0.0091
Results of WELM (after deleting the feature of RMB/SUD, HKD/RMB and HKD/USD)						
WELM	1.4658	2.2402	0.6752	1.7849	2.2945	0.0016
WELM- linear kernel	1.4649	2.2394	1.8194	1.7655	2.2950	8.6988e-04
WELM- RBF kernel	1.4668	2.2368	2.4424	1.6897	2.2527	0.0044
WELM- poly kernel	1.4700	2.2452	3.0995	1.9471	2.3996	0.0097
WELM- wave kernel	1.4693	2.2438	3.0756	1.9479	2.4000	0.0090

Using financial time series and SZSE market data samples from CSMAR, the case study results illustrate that the WELM model not only can turn an original higher-dimensional space into a new lower-dimensional space but also further improve the forecasting accuracy and speed. As verified by the results, compared to ELM, ELM-kernel, SVM and GARCH type models, WELM achieves better generalization performance for regression.

Training results analysis: a) It is clear that ELM or ELM-kernel or SVM models are better than GARCH type models as a whole. GARCH type models perform the worst according to all goodness-of-fit measures. For example, the MAE (RMSE) of IGARCH model is 3.213(3.881). The MAE (RMSE) of ELM- linear kernel model is only 1.4660 (2.2383), for the implied volatility proxy, much smaller than the one from the IGARCH model. b) It can be seen clearly ELM (ELM-kernel) and SVM have similar levels of accuracy. The MAE of ELM (ELM-kernel) is slightly bigger than SVM, while the RMSE of SVM is slightly bigger than ELM (ELM-kernel). c) It can be seen clearly that the results of WELM (WELM-kernel) is similar even better than ELM (ELM-kernel) and SVM. WELM (WELM-kernel) not only can reduce the dimensions of features but also further improve the speed and accuracy.

Test results analysis: a) It is unpractical to predict the financial time series with single model because it is a nontrivial task and handling process would be very complicated due to large amount of data involved. We propose a learning framework based on wavelet analysis and extreme learning machine (WELM). It can be seen clearly that WELM (WELM-kernel) are better than ELM (ELM-kernel) and SVM as a whole. WELM (WELM-kernel) not only can reduce the dimensions of features but also further improve the speed and accuracy. b) It is clear that WELM (WELM-kernel) or ELM (ELM-kernel) or SVM models are better than GARCH type models as a whole. GARCH type models perform the worst according to all goodness-of-fit measures. For example, the MAE (RMSE) of IGARCH model is 4.533 (5.7). The MAE (RMSE) of WA-ELM- RBF kernel model is only 1.6498 (2.2767), for the implied volatility proxy, much smaller than the one from the IGARCH model. c) It can be seen clearly ELM (ELM-kernel) and SVM have similar levels of accuracy. The MAE of ELM (ELM-kernel) is similar to SVM, while the RMSE of SVM is slightly bigger than ELM (ELM-kernel). d) WELM saves lots of computation time and system memory, and requires less user-defined model parameters, which is suitable for large-scale data analysis in practical applications.

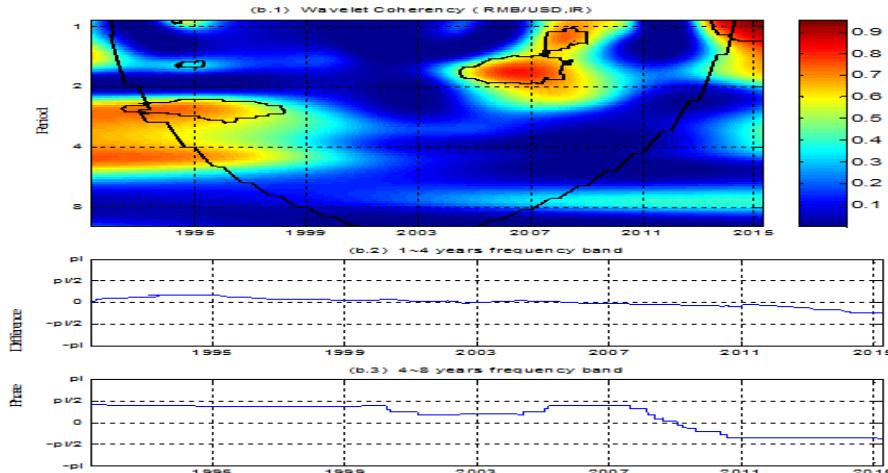


Figure 1: The 3-D wavelet dynamic co-movement between RMB/SUD and IR

In Figure 1, we present the 3-D wavelet dynamic co-movement between RMB/SUD and IR (Index Returns) in SZSE during the period 1991-2015. The thick black lines in wavelet power spectrum plots contours designate the 5% significance level estimated from Monte Carlo simulations employing a phase randomized surrogate series. The significance level was simulated using a Monte Carlo method of 10,000 sets of two white noise time series with the same length as the series under analysis. The regions below the thin black lines are cones of influence (COI) in which edge effects exist.

As mentioned before, we employ the wavelet power spectrum $|F_{z_{IT,i} z_{IT,0}}(\tau, \lambda)|^2$ as one of the standard of feature selection. The wavelet power spectrum is marked by color bars on the right side. In Figure 2, the wavelet power spectrum $|F_{z_{IT,i} z_{IT,0}}(\tau, \lambda)|^2 \leq 0.7$ and the color bars are yellow colors during 1993-1996 and 2006-2008, but for most of the time, the wavelet

power spectrum $|F_{z_{IT,t} z_{IT,0}}(\tau, \lambda)|^2 \leq 0.5$ and most of the color bars are blue colors. So the wavelet power spectrum implies that there is no or weak co-movement between time series.

The squared wavelet coherency is another standard of feature selection presented using contour plots as it involves three dimensions. Time and frequency are represented on the horizontal and vertical axis, respectively. Frequency is converted to time units (years) for ease of interpretation. In Figure 2, we can see that its frequency is about 1 to 3 years. Consequently, through a visual assessment of the graphs, we can detect both the time- and frequency varying co-movements. The thick black continuous line in Figure .2 isolates regions where the wavelet squared coherency is statistically significant at the 5% level. In Figure 2, the squared wavelet coherency $\Gamma_{z_{IT,t} z_{IT,0}}^2(\tau, \lambda) \leq 0.7$ and the color bars are yellow colors only during 1993-1996 and 2006-2008, but for most of the time, the squared wavelet coherency $\Gamma_{z_{IT,t} z_{IT,0}}^2(\tau, \lambda) \leq 0.5$ and most of the color bars are blue colors. So it implies the weaker co-movement between time series. Therefore, there is a weak co-movement between RMB/SUD and IR during the period 1991-2015. So we delete the RMB/SUD. In the same way, we delete the features HKD/USD and HKD/RMB respectively.

Conclusions

In this paper, we propose a model called WELM based on a 3-D wavelet dynamic co-movement analysis and extreme learning machine. As verified by the results, compared to ELM, ELM-kernel, SVM and GARCH type models, WELM achieves better generalization performance for regression. WELM (WELM-kernel) not only can turn an original higher-dimensional space into a new lower-dimensional space but also further improve the forecasting accuracy and speed. Using financial time series and SZSE market data samples from CSMAR, the case study results illustrate that the WELM model can be used as a tool by financial market participants. The selection criteria of feature employing a 3-D wavelet dynamic co-movement analysis need further quantitative.

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The Roles of Customer Risk Perceptions, Satisfaction and Word-of-Mouth in Predicting Revisit Intentions for Online Buying and E-Commerce

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Abstract

Online buying is replacing offline buying methods, making the competition between vendors more intense and forcing them to target customers individually. From this perspective, vendors are eager to keep customers shopping with them, hence, measuring and managing customers' likelihood to revisit the vendor's website becomes one of the key goals for vendors. This paper aims to predict customer revisit intentions based on satisfaction, word-of-mouth (WOM), online buying risks perceptions, and demographic characteristics. Measuring the satisfaction level is standard for online vendors, and the prediction of revisit intentions based on satisfaction was chosen as a baseline model. First alternative model adds WOM, measuring which is slightly less common among online vendors, as another independent variable and measures the impact in prediction performance. Second alternative model adds customer risk perceptions to the model as new independent variables. This model assumes that prior risk perceptions have a strong impact on buying decision, and, while being corrected with successful or unsuccessful buying experience, have a residual effect on the next purchase and revisit intentions. This paper compares regression performance for the models with different sets of independent variables. Since the individual risk perception measuring is not common in e-commerce, regressions models on demographic characteristics are trained in order to approximate the risk perceptions.

Keywords: e-commerce, online shopping risks, regression

A Study of Transformational Leadership, Strategic Flexibility and Firm Performance: The Moderating Role of Environmental Dynamism

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Abstract

In order to examine the effect of “black box” between the transformational leadership and firm performance, this study indicates the impact of the transformational leadership on firm performances at the firm level. It is also the first one offering a theoretical model which introduces the strategic flexibility as an important dynamic capability into this intermediate constructs. Then, based on the context of transition economy in China, we examine environmental dynamism as a moderator in this relationship and empirically test the above questions. We have conducted questionnaire surveys on 328 companies’ top managers mainly located in Beijing, Shanghai, Guangdong etc. and finally received 210 valid samples. The results show that, transformational leadership has positive effects on firm performance and strategic flexibility plays a fully mediated role between them; Environmental dynamism moderates the relationship between transformational leadership and strategic flexibility, and it also has moderated effects in the relationship between strategic flexibility and firm performance. These conclusions indicate that transformational leadership and strategic flexibility have been proposed to deal with the dynamism and achieve high firm performance, which provides constructive guidance in the development of enterprises in the China’s transitional economy.

Keywords: transformational leadership, strategic flexibility, environmental dynamism, firm performance

Introduction

Strategic flexibility is a kind of dynamic capability, which is a basic method of enterprise's sustainable development(Li & Tang, 2010), and which is the capability of enterprises to respond to environmental change in time and effectively(Sanchez,1997). However, in the process of enterprise's perceived environmental change and the cultivation of strategic flexibility, it is the strategic leader that matters. CEO who is in the core position of strategic leadership controls and commands the relevant resources to achieve its objectives and he plays an important role in the process of the strategic development and implementation(Dutton & Duncan,1987). Whether CEO can influence, inspire and stimulate the initiative and dedication of the members of TMT, create a good organizational learning atmosphere, inspire team members' innovation, and achieve the improvement of firm performance, relies on the leadership of CEO which can lead the enterprise to change(Chen & Wang, 2012).This kind of leadership is called transformational leadership

by Burns(1978). Transformational leadership can not only change and adjust the individual consciousness, can also encourage TMTs' consciousness change, mining TMT's potential and then lead the enterprises to actively respond to the complex and changeable environment, enhance strategic flexibility, build the core competitiveness, and obtain good business performance. However, judging from the existing literature, scholars' research on transformational leadership mainly concentrated in transformational leadership behavior of individual effects(Chen, 2010), little literature from the enterprise or organization level research on transformational leadership behavior is how to promote the establishment of a competitive advantage and improve firm performance. Although some scholars have studied the intermediate variables of corporate culture, entrepreneurs spirit, competitive strategy and organizational learning and innovation between transformational leadership behavior on firm performance effect, the existing literature for the mechanism of this effect research is still very limited(Bass,2010).Study on psychological characteristics of transformational leadership behavior on the effect and the mechanism of the enterprise level more focused, and neglect the influence of corporate leaders on the dynamic capabilities of the enterprise(Colbert & Kristofbrown,2008). Fortunately, the existing literature began to focus on transformational leadership can enhance enterprise strategic flexibility(Wang & Zhao, 2014), organizational ability whether in the "black box" mechanism of firm performance plays very important role(García,2008),these documents provide implications for the introduction of flexible strategy to study the transformational leadership on firm performance.

Nowadays, Chinese enterprises are facing a complicated and changeable environment, how to obtain a lasting competitive advantage is the focus of research in the field of strategic management(Lin & Zhao, 2013). Compared with western developed countries, China is in a critical period of economic restructuring. With the development of economic globalization, technological innovation and market competition become increasingly fierce(Luo, Men & Zhong, 2014), the dynamic environment has become the key environmental characteristics that Chinese enterprises should take into consideration when making strategy. Based on upper echelons theory and combined with background of dynamic environment, this research build the relationship between transformational leadership, strategic flexibility and firm performance model, trying to solve the transformational leadership on firm performance "black box" mechanism from the angle of strategic flexibility. There are two major contributions of this article. First, studying strategic flexibility in the intermediary role between transformational leadership behavior and corporate performance from the perspective of dynamic capabilities. Finally, with the Chinese specific context of economic transition, the study is the first to explore the influence of environmental dynamism on the relationships among transformational leadership, strategic flexibility and firm performance, which gives helpful suggestions for Chinese firms.

Literature Review

Transformational leadership and firm performance

Transformational leadership is first described in the book "the rebel leader" by Downton(1973). Subsequently, based on the research of Burns(1978), Bass et al.(1985) further defines the concept of transformational leadership, pointing out that the transformational leadership by let subordinates to assume the task of meaning and value, stimulating their high-level needs so that they would go beyond personal interest to care about the firm performance.

Transformational leadership is good at the establishment of a common vision, paying attention to the guidance and motivation of employees which is conducive to the promotion of staff initiative so as to further enhance the corporate performance. They attach great importance to the concept of emotion and value and pay attention to strengthen the communication between employees and positive employee diversity in the process of leadership, thus it is easy to determine the consistency of the enterprise, and thus enhance the effectiveness of the enterprise(Howell & Avolio, 1993). According to the literature review, the various dimensions of transformational leadership behavior has a positive relationship with firm performance(Xie & Zhang, 2010). Agle and Srinivasan(2006) show that transformational leadership by overcome organizational inertia and make the organization better to adapt to the environment, so as to improve the enterprise's performance. This leads us to propose:

H1: Transformational leadership has significant positive correlation with firm performance.

Transformational leadership and strategic flexibility

Strategic flexibility is a kind of adjustment ability which can deal with the non-predictable environmental changes and have an important impact on firm performance(Aaker & Mascarenhas, 1980). Dynamic ability school(Teece, Pisano & Shuen, 2009) divides the strategic flexibility into resource flexibility and capability flexibility, resource flexibility is the ability to make the company develop, manufacture, distribute and sell different products effectively; Capacity flexibility is a kind of ability to discover new resources and integrate the resources in the dynamic environment, which can be used to carry out innovation and gain income. Capacity flexibility includes many internal factors of the coordination flexibility proposed by Sanchez(Sanchez, 1995), and it can better determine the strategic flexibility of the enterprise(Wang, Chen & Jia, 2011). Based on the research of dynamic capability school, this study defines the strategic flexibility as a dynamic ability of enterprise to obtain competitive advantage in dynamic environment through the rapid adjustment of strategy and resource allocation.

Upper echelons theory holds that CEO is the key to develop the strategic flexibility of the enterprise through three steps: defining the definition of the enterprise's vision, choosing the cognition and explaining the definition of the strategy(Shimizu & Hitt,2004). CEO is in the key position in the process of strategic decision-making, his behavior will directly affect the organizational structure and culture(Elenkov & Manev,2005), organizational

structure and culture will have a direct effect on the enterprise flexibility, then affect the enterprise innovation and strategic update activities. With the spirit of exploration and innovation, transformational leader breaks the original learning atmosphere, emphasizing the variety and experimental and then stimulates members to challenge the status quo, effectively discovers and creates new knowledge and promoting organizational learning(Peng & Zang ,2012). Scholars of organizational learning hold that organizational learning is a way of improving the adaptability and efficiency of the organization(Jian,2000), and enhancing the process of strategic flexibility(Stubrich & Peter,1993). Good learning ability can promote strategic flexibility to achieve the purpose of effective allocation, discovery and development opportunities of resources. And the dynamic environment in turn to put forward higher requirements for the strategic flexibility, so the learning ability of the enterprise more easily to form a high level of strategic flexibility. This leads us to propose:

H2: Transformational leadership has significant positive correlation with strategic flexibility.

Mediated role of strategic flexibility

Strategic flexibility and firm performance

Strategic flexibility is considered as the important source of competitive advantage in an uncertain and rapidly changing environment. Because strategic flexibility can overcome the problems caused by the inertia of the organization(Madba,1996), it is able to promote the organization's performance. Through the flexible use of resources and the process of reconfiguration, strategic flexibility can adapt to the changes in the environment, quickly grasp the external opportunities, which can greatly reduce the business risks and inertia, increase the probability of business success(Barreto, 2010). Nadkarni(2010) and other foreign empirical studies show that the strategic flexibility can significantly positively affect the firm performance. Yang(2010) and other empirical studies of Chinese enterprises have also obtained a similar conclusion. This leads us to propose:

H3: Strategic flexibility has significant positive correlation with firm performance.

Mediating effect of strategic flexibility

Dynamic capability exists in the form of the mediation on the premise of the acquisition of resources, tries to improve the efficiency of these resources and finally promote enterprises to achieve competitive advantage(Amit et al., 1993). Existing strategic research show that internal resources do not have direct effect on firm's competitive advantage while they have indirect influence on firm's competitive advantage by dynamic capabilities(Festing & Eidems, 2011).

Strategic flexibility possesses the basic features of organization capability so that the formation of strategic flexibility should depend on information and have a mediating role in the relationships between resources and competitive advantages(Amit et al., 1993). By promoting organization members to actively exchange and interaction, transformational leadership can establish various social networks in the organization, social network facilitates the discussion and confirmation of the organization of information, thus reducing

the tissue selective bias errors, reduced bias can improve enterprise strategic flexibility(Shimizu et al., 2004). Therefore, based on the dynamic capabilities theory, this paper argues that transformational leadership is exert an influence on firm performance through the integration of strategic flexibility. This leads us to propose:

H4: Strategic flexibility mediates the relationship between transformational leadership and firm performance.

Moderating role of environmental dynamism

Environmental dynamism is the frequency and unpredictability of the external environment of the enterprise(Dess & Beard, 1984). High environmental dynamism is characterized by unpredictable and rapid changes. Under the high dynamic environment, requires the leader to have the sensitivity to the environment and the spirit of adventure and has the ability to make important decisions based on incomplete information(Wallace & Hill, 2010). Conger and Kanungo(1988) said that a kind of effective leadership behavior in a certain extent could weaken the negative influence of the external environment. Under the dynamic environment, the charismatic leadership has more sensitivity to the environment, and can effectively implement the reform and innovation, so as to adapt to the changes of the external environment(Liu & Chen, 2009), and then promote the strategic flexibility of the enterprise. This leads us to propose:

H5: The higher the dynamic environment, the greater the transformational leadership has impact on strategic flexibility

In the high dynamic environment, enterprises should rely on the construction of strategic flexibility to obtain competitive advantage(Lin et al., 2013). The higher the environmental dynamism, the more need to maintain the high level of strategic flexibility which is in order to effectively respond to the changes in the environment and achieve a higher level of performance. In the high dynamic environment, enterprises need to adjust the existing business activities and strategic orientation so as to deal with the challenges from the demand and technological innovation. Strategic flexibility is conducive to improve the internal communication and coordination of the enterprise and enhance the dynamic competitive advantage, which has a positive impact on firm performance(Xu, 2007). In a relatively stable environment, the demand for strategic flexibility is less. Because in this case, the pursuit of strategic flexibility will lead to more cost and the increasing pressure of the manager's decision. Moreover, due to excessive response will reduce focus on the existing strategy. From this, we can know that the dynamic of the environment will affect the relationship between the strategic flexibility and firm performance. This leads us to propose:

H6: The higher the dynamic environment, the greater the strategic flexibility has impact on firm performance

To sum up, we summarize the study model as Figure 1 shows.

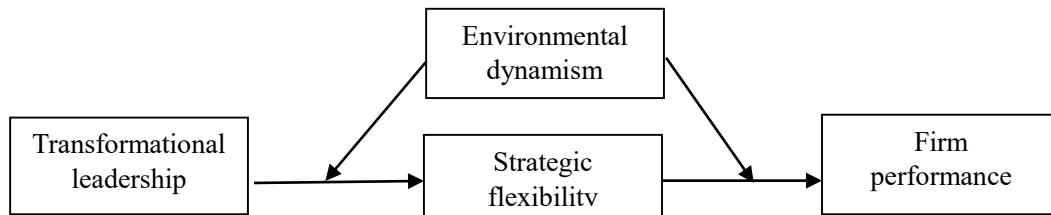


Figure 1: The Model of This Study

Methodology

Measures

Transformational leadership. Based on "multi factor leadership behavior questionnaire" published in the Journal of Occupational and Organizational Psychology by Bass(1999). Transformational leadership behavior is divided into four dimensions: leadership charm, charisma, intellectual stimulation and personalized care. Strategic flexibility. Referring to the existing literature, the strategic flexibility is divided into two dimensions: resource flexibility and capability flexibility. Resource flexibility is measured by Sanchez(1997). Capability flexibility is measured by Li, Liu and Duan(2008).Environmental dynamism. According to Jansen's(2006) measurement. Firm performance. Return on Assets Operating(ROA) is used as a performance indicator in this paper. Control variables. Choose the age of enterprise, enterprise asset size, the proportion of state-owned shares and corporate asset liability ratio as the control variables.

Sample

The research objects are the manufacturing enterprises in Shanghai and Shenzhen stock market, according to the requirements of the study variables and measurement, data collected through the questionnaire survey and the combination of secondary data. Transformational leadership, strategic flexibility and dynamic environment collected by questionnaire survey, firm performance and control variables are obtained through the CSMAR database.

Before the investigation, in order to increase the credibility and feasibility of the questionnaire, research group first tested 33 enterprises in Guangzhou, Foshan, Shenzhen, etc. On this basis, the formal questionnaire survey is done after discussing with the relevant experts. Sample enterprises are manufacturing enterprises listed in Shanghai and Shenzhen stock market before 2010. The survey object is the manager of the enterprise middle level or above. Survey methods are mail, fax, telephone interview, interview, etc. After more than two months of investigation, a total of 328 questionnaires were issued, and the number of valid samples was 210.

Reliability and discriminant validity

The reliability and validity of the measurement instrument were tested before the statistical analysis of the sample, and the consistency, stability and reliability of the questionnaire were evaluated.

Each dimension of the transformational leadership's Cronbach's α are 0.924, 0.882, 0.860, 0.889; the total Cronbach's α coefficient is 0.928. These show that transformational leadership behavior and its four dimensions have good reliability. CFA is conducted to examine the construct validity of transformational leadership. Four-factor model shows a good fit to the data ($\chi^2/df=2.45$; $p=0.000$; RMSEA=0.083; NFI=0.884; TLI=0.908; CFI=0.927). The transformational leadership behavior has good construct validity. Each dimension of the strategic flexibility's Cronbach's α are 0.912, 0.902; the total Cronbach's α coefficient is 0.898. These show that strategic flexibility and its four dimensions have good reliability. Four-factor model shows a good fit to the data ($\chi^2/df=2.13$; $p=0.000$; RMSEA=0.074; NFI=0.960; TLI=0.968; CFI=0.978). The strategic flexibility has good construct validity. Cronbach's α coefficient environmental dynamism is 0.826, which shows that environmental dynamism has good reliability.

Moreover, we examine the distinctiveness of study variables. Comparing the measurement model consists of single factors, double factors and multi factors: transformational leadership, strategic flexibility and environmental dynamism. The results indicate the three-factor model provided a good fit to the data ($\chi^2/df=2.10$; $p=0.000$; RMSEA=0.073; NFI=0.918; TLI=0.936; CFI=0.955). This shows that transformational leadership behavior, strategic flexibility and environmental dynamism have good discriminant validity, and it shows that environmental dynamism has good structure validity at the same time.

Data analysis

Table1: Descriptive Statistics and Bivariate Correlations

Variable	M	SD	1	2	3	4	5	6	7
1.Age	16.34	5.99							
2.InAsset	21.89	1.18	0.085						
3.STShare	2.05	9.61	0.189**	0.133					
4.Debt	41.70	20.89	0.220**	0.461**	0.072				
5. ED	4.27	0.79	0.001	- 0.199**	- 0.112	- 0.200**			
6. TL	4.87	0.40	0.053	- 0.318**	- 0.080	- 0.262**	0.372**		
7. SF	4.55	0.55	0.125	- 0.249**	- 0.027	- 0.198**	0.474**	0.439**	
8.ROA(%)	4.96	5.44	-0.049	- 0.347**	0.049	- 0.283**	0.310**	0.289**	0.335**

Notes: Significant at: * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$; ED – Environmental Dynamism; TL – Transformational Leadership; SF – Strategic Flexibility;

Mean, standard deviations and intercorrelations among the variables are shown in Table 1. The results of correlation analysis among the variables show that main variables are all positively related. Based on the analysis above, we took control variables into consideration and conducted multiple regression analysis to get more robust empirical results.

Results

As seen in Table 2, our results provide support for both hypotheses(H1 and H2) as transformational leadership is a significant predictor of firm performance($r=0.190, p<0.01$) and of strategic flexibility($r=0.378, p<0.001$). Table 2 also presents the results for the test of H3. Support is found for H1 as strategic flexibility is positively related with firm performance($r=0.262, p<0.001$). The results of this hypothesis above establish the relationships necessary for Steps 1-3 of mediation(Baron and Kenny, 1986). To further examine H4, we regress firm performance on both transformational leadership and strategic flexibility. The results show that transformational leadership is no longer a significant predictor of firm performance($r=0.105, p>0.1$) once strategic flexibility is added to the model. Therefore, H4 is supported.

Table 2: Mediating Effect of Strategic Flexibility

Variable	SF		FP			
	model1	model2	model3	model4	model5	model6
Age	0.178*	0.132*	-0.009	-0.032	-0.056	-0.062
InAsset	-0.193*	-0.102	-0.287***	-0.242**	-0.237**	-0.219**
STShare	-0.025	-0.003	0.100	0.111 ⁺	0.107 ⁺	0.112 ⁺
Debt	-0.147 ⁺	-0.081	-0.156*	-0.123 ⁺	-0.117	-0.105
TL		0.378***		0.190**		0.105
SF					0.262***	0.224**
R ²	0.100	0.224	0.149	0.180	0.211	0.219
Adj-R ²	0.082	0.205	0.132	0.160	0.192	0.196
F-value	5.689***	11.781***	8.979***	8.984***	10.917***	9.509***

Notes: Significant at: + $p<0.1$, * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$; TL –Transformational Leadership; SF – Strategic Flexibility; FP–Firm Performance

To assess the moderating role of environmental dynamism in the relationship of transformational leadership and strategic flexibility(H5), we examine three conditions: a. Significant effects of transformational leadership on strategic flexibility($r=0.378, p<0.001$); b. Significant effects of transformational leadership and environmental dynamism on strategic flexibility($r=0.264, p<0.001; r=0.351, p<0.001$); and c. After controlling for transformational leadership and environmental dynamism, the interaction of transformational leadership and environmental dynamism is significant($r=0.125, p<0.05$) in predicting with strategic flexibility. Thus, H5 is testified.

To further validate evidence of the moderated mediated relationship(H6), we follow Wen, Chang and Hau(2006) recommendations to examine four conditions(results are shown in Table 3): a. Regress firm performance on transformational leadership and environmental dynamism and examine a significant coefficient associated with transformational leadership($r=0.121, p<0.1$). b. Regress strategic flexibility on transformational leadership and environmental dynamism and examine a significant coefficient associated with transformational leadership($r=0.264, p<0.001$). c. Regress firm performance on transformational leadership, environmental dynamism and strategic flexibility, and examine a significant coefficient associated with strategic flexibility($r=0.165, p<0.05$). d. Regress firm performance on transformational leadership, environmental dynamism, strategic flexibility and the interaction of environmental dynamism and strategic flexibility. A significant coefficient associated with the interaction($r=0.137, p<0.05$) suggests that the

mediating effect of strategic flexibility on the relation between transformational leadership and firm performance is moderated by environmental dynamism. Therefore, H6 is testified.

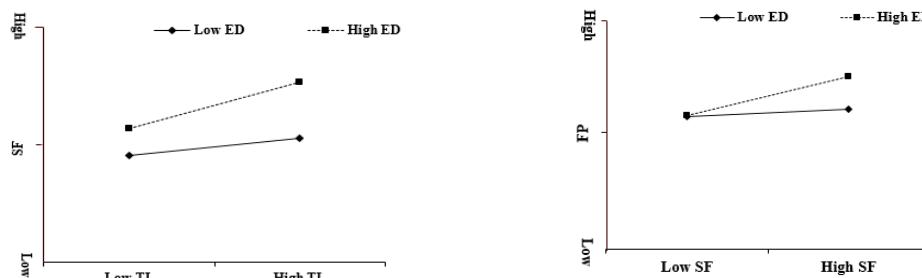
Considering that evidence supports H4 and H5, we further examined whether the moderating effect of environmental dynamism on the relationship between transformational leadership and firm performance is mediated by strategic flexibility. Following Wen et al.'s(2006) recommendations, we conducted a regression analysis of the impact of transformational leadership, environmental dynamism and their interaction on firm performance. An insignificant coefficient associated with the interaction indicates that environmental dynamism is not the moderator of the relation between transformational leadership and firm performance(Table 3).

Table 3: Moderating effect of environmental dynamism

Variable	SF		FP			
	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Age	0.124*	0.119*	-0.037	-0.058	-0.064	-0.038
InAsset	-0.086	-0.078	-0.232**	-0.218**	-0.180*	-0.230**
STShare	0.025	0.023	0.128*	0.124 ⁺	0.128*	0.127*
Debt	-0.048	-0.059	-0.103	-0.095	-0.122 ⁺	-0.105
TL	0.264***	0.267***	0.121 ⁺	0.078	0.057	0.122 ⁺
ED	0.351***	0.351***	0.212**	0.154*	0.147*	0.212**
TL*ED		0.125*				0.031
SF				0.165*	0.197*	
SF*ED					0.137*	
R ²	0.328	0.344	0.218	0.237	0.254	0.219
Adj-R ²	0.308	0.321	0.195	0.210	0.224	0.192
F-value	16.525***	15.104***	9.459***	8.954***	8.536***	8.112***

Notes: Significant at: +p<0.1, *p < 0.05, **p < 0.01 and ***p < 0.001; TL –Transformational Leadership; ED – Environmental Dynamism; SF – Strategic Flexibility; FP–Firm Performance

In summary, environmental dynamism moderates the relationship between transformational leadership and strategic flexibility, and it also has moderated effects in the relationship between strategic flexibility and firm performance. To illustrate the relationships above more vividly, we plot the simple slopes at 1 standard deviation above and below the means(Figure 2).



Notes: TL –Transformational Leadership; SF – Strategic Flexibility; ED – Environmental Dynamism; FP–Firm Performance

Figure 2: Moderating Effect of Environmental Dynamism

Conclusions

Based on the dynamic capability view, the study introduces strategic flexibility to explore the mechanism through which transformational leadership influence firm performance. According to the context of China's transition economy, we examine environmental dynamism as a moderator in these relationships. According to the empirical analysis, we reach the following conclusions.

First, strategic flexibility fully mediates the relationship between transformational leadership and firm performance. The results of this study show that strategic flexibility truly exists in the form of the mediation on the premise of the acquisition of resources, tries to improve the efficiency of these resources and finally promote enterprises to achieve competitive advantage(Amit et al., 1993). The results provides a new perspective to uncover the "black box" relationship between transformational leadership behavior and firm performance.

Second, environmental dynamism moderates the relationship between transformational leadership and strategic flexibility. When firm's environmental dynamism increases, the effects of transformational leadership on strategic flexibility is strengthened. Compared to the previous studies(Wang et al.,2014), this paper not only finds transformational leadership behavior has positive effect on strategic flexibility, further finds that, when the enterprise is in the high dynamic environment, this kind of influence will be significantly enhanced.

Third, environmental dynamism plays a positive moderating role between strategic flexibility and firm performance, which is consistent with previous research results(Yang, 2010). It shows that the relationship between strategic flexibility and firm performance is indeed influenced by the dynamic environment. When the enterprise is in a high dynamic environment, this kind of influence will be enhanced.

Theoretical implications

This study reveals the important influence mechanism of transformational leadership on firm performance, and further tests the strategic flexibility and the environment dynamics in which the important role played, which provides an important inspiration for enterprises to obtain competitive advantage in dynamic environment. Chinese scholars has a certain research on the transformational leadership theory and firm performance, but the research is very little from the enterprise level perspective. Moreover, the effect of the dynamic ability of strategic flexibility is still in a blank space. Therefore, based on western transformational leadership theory and in Chinese environment situation, this study is the first to introduce strategic flexibility as an important dynamic capability into the process through which transformational leadership influences firm performance. This study further enriches the development of transformational leadership theory, and provides a new perspective to reveal the "black box" relationship between organization leader of transformational leadership behavior and firm performance.

Practical implications

The research results have certain guiding significance to the management practice. First, affirmation of transformational leadership behavior. In order to improve the strategic flexibility and performance, leaders first need to train their ability of transformational leadership, learn to for the organization to set the vision and provide intellectual inspiration for subordinates and employees. When the level of strategic flexibility is relatively slow, the leader can spread the information of environmental dynamics to make some sense of crisis in the organization, which can become a positive factor to promote the enterprise to enhance the strategic flexibility. Second, companies should enhance the emphasis on strategic flexibility. And the effect of strategic flexibility on firm performance is also regulated by environmental dynamism. Therefore, in the context of China's transition economy and globalization, companies need to adjust and reallocation of resources in timely, so as to better adapt to the changes of the whole social environment and then improve firm performance.

Limitations and future research

There are also some limitations of this study which provide future research directions. First, the formation of strategy and excellent performance are the social result of the long-term interaction between the CEO and the top management team. In the future, on the basis of transformational leadership and TMT interaction, researching on the relationship between strategic flexibility and firm performance. Second, there are homologous error because of the questionnaire is answered by one same person in the study. Although the study shows that the existence of homologous error is not enough to make the conclusion invalid(Doty & Glick,1998), it is necessary to select different research objects in future research .Finally, this study is limited to a certain time point of the cross section of the study. Future research may consider the introduction of longitudinal design to further verify the impact mechanism.

Acknowledgements

We acknowledge the financial support from National Natural Science Foundation of China(Grant No.71172073,71402022).These all make this paper more valuable and readable. Any errors that remain are our own.

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Medical Tourism: An Empirical Analysis of the Services and Applications

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Abstract

In the beginning of the 21st century, a new industry was born as a growing dimension of health care globalization, Medical Tourism. It can simply be expressed as the travel of consumers (patients) to another country for receiving appropriate medical treatment, handle all travel arrangements, teleconference with physicians, send medical records, etc. Traditionally, people travelled from less-developed countries to major medical centers in highly developed countries for medical treatment that was unavailable in their own countries. The recent trend is for patients to travel from developed countries to third-world countries for medical treatments because of cost consideration, though the traditional pattern still continues. Another reason to travel for medical treatment is that some of the treatments may not be legal in the home country. Latest researches forecast that the market size of medical tourism is around USD 38.5-55 billion, based on approximately eleven million cross-border patients worldwide spending an average of USD 3,500-5,000 per visit, including all medically-related costs, cross-border and local transport, inpatient stay and accommodations. There are many agencies that provide services to patients who want offshore medical and surgical treatment. These agencies help patients select a country, facility and provider. They determine prices and collect payment, assemble and transmit medical records, and arrange travel and accommodations. Latest data indicates that Turkey has recently emerged as one of the top destinations for medical tourism, ranking sixth in the world for medical tourism. This project aims to realize two main objectives. First, investigating the current Medical Tourism services all around the world, determining the key factors and designing an ideal Conceptual Framework. Second, developing interactive software applications to promote the marketing of Medical Tourism facilities. Major steps of the project is planned to be realized in the popular tourism destinations such as Antalya-Turkey, Florida-USA, Phuket-Thailand, etc.

Keywords: medical tourism, hospitality, health, web sites, applications

Exchange Traded Funds: Leverage and Liquidity

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Abstract

This paper examines the paramount differences between leveraged and unleveraged ETFs, particularly where liquidity and volatility are concerned. The impact of leverage on intraday liquidity (spread and depth) is analyzed in two periods – one of normal volatility and the other of abnormal/high volatility. As we experience more periods of abnormal volatility and record remarkable levels on our popular stock indexes such as the DJIA, the effects of volatility become increasingly more important to study. There is a distinct difference in spread and depth of leveraged and unleveraged ETFs both in periods of normal volatility and high volatility, however, the difference is more significant in higher volatility periods. In high volatility, liquidity typically diminishes in all ETFs and this is even more pronounced in leveraged ETFs. When leveraged ETFs are segregated into multiples based on their power to replicate the underlying benchmark (i.e., multiples of -3, -2, -1, 2, 3), the difference in spreads between normal and high volatility periods is typically larger. The double leveraged ETF has the most significant difference between the positive and negative counter parts. However, there is not a linear relationship in the progression of the multiples to correspond with the level of volatility. Therefore, leveraged ETFs' volatility levels are not directly based on how much they replicate the returns of the underlying benchmark.

Keywords: exchange traded funds, volatility, leverage, liquidity

Customer-Centric Business as an Interdisciplinary Affair

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Abstract

Customer centric business encompasses all areas of a business including: leadership and culture, performance, solution selling, business collaboration, process, governance, information and communication technologies (ICT) and outsourcing. A customer centric business uses processes that operate end-to-end to provide value to customers – that span many silos of a business. While these thought processes have been applied in the past in what is known as Business Process Reengineering (BPR), the customer-centric business takes even a more interesting dimension in the world of Social-Mobile media and Cloud-analytics. This is so because these technologies are not merely supporters but core enablers of business processes. For example, extremely large, global and successful organizations such as Google, Amazon and Facebook, have their core business model based on ICT rather than being supported by ICT. Also, note how these customer centric businesses change the way they interact with their customers. Most typically, the goals of their business processes has changed from selling products to solution selling. This transition from product selling to solution selling for solving customer problems also sees a change of remuneration from a one-off payment for product to vested interest payments against solutions sold and/or implemented. Such a change can be based on not just developing but also sourcing ICT services from suppliers and to help assure delivery, whilst internal business areas can use the same approach to ensure service delivery from IT. Thus, customer-centric success in these business models requires to incorporate multiple disciplines – drawing from varied disciplines as psychology and sociology through to accounting and technology. For example, the now popular statistical figure of Net Promoter Score (NPS) that is used to ascertain the level of satisfaction of a customer for a product or service comprises not only how a customer feels about that particular product or service, but also how well the customer is likely to promote his/her experience to the family and friends. Developing an understanding of this ‘value’ satisfaction (as against basic delivery of a product or service) goes way beyond calculating the quantitative results of a survey. Furthermore, also note that the customer is neither equipped nor interested in knowing the internal business and technology structures. A customer only sees the end-to-end process and businesses need to be astute enough to incorporate interdisciplinary research and results in those end-to-end processes. End-to-end processes incorporate business rules with user experience, database requirements with changing user needs, and user interfaces with subjective nuances. Consider, again, how the myriad mobile applications that are being downloaded millions of times by both iPhone and Android users, so *not* have any specific, dedicated training. The *intuitive* nature of almost all mobile apps is a classic example of incorporation of psychology and sociology in designing Social-Mobile applications. This paper presents the various interdisciplinary factors that need to be considered in developing a successful customer-centric approach for business processes.

Keywords: customer-centric business, ICT enablers, interdisciplinary application

Incorporating Interdisciplinary Research and Practice in the Development of BDFAB (Big Data Framework for Agile Business) Framework

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Abstract

Interdisciplinary approach is integral to successful outcomes in research and practice, particularly in the information technology (IT) domain. This is mainly because of the highly interconnected nature of IT with business. As is evident in daily usage, basic business processes related to banking, travel and hospital not only depend heavily on IT but are so meshed up with IT that they don't have an independent, manual existence. The upcoming Big data technology provides an excellent example of this intertwined nature of IT with business processes. Incorporating Big data in business requires an understanding of the many non-technical facets of the business – including economics (e.g. calculating ROI), sociology (e.g. project teams and their behavior), psychology (e.g. individual motivators and biases) and so on. The Big Data Framework for Agile Business (BDFAB) is the output of last two years of exploration of the value of Big data technologies and analytics to business. Based on literature review, controlled experimentation (action research) and practice, the BDFAB incorporates disciplines of Information Technology, Business Innovation, Sociology and Psychology (people and behaviour, Social-Mobile media), Finance (ROI), Processes (Agile), User Experience, Analytics (descriptive, predictive, prescriptive) and Training and Education. This paper introducing the key elements of the framework comprising agile values, roles, building blocks, artefacts, conditions, agile practices and a compendium (repository). The building blocks themselves are made up of five modules: business decisions, Data - technology and analytics, user experience-operational excellence, quality dimensions and people – capabilities. As such, BDFAB is a fine exhibition of a multidisciplinary approach to research and practical applications. In this paper we present how such interdisciplinary approach was used in the development of the Big Data Framework for Agile Business (BDFAB). We further argue why the implementation of this framework in practice also benefits highly with the use of a multidisciplinary approach.

Keywords: big data framework, agile business, interdisciplinary research

Using GIS-Based Multi-Criteria Analysis for Optimal Site Selection for a Freight Village in Germany's Bremen City

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Abstract

The freight villages are important and expensive investments that have significance for the national economy and companies in the country. Due to this, the selection of a location for a freight village is a most important decision. The site selection decision is not merely the question of choosing sites. It involves various criteria that must be considered simultaneously in which multiple requirements and uncertain conditions. That makes the decision process complex. The improved computer technologies and the common usage of Geographic Information Systems (GIS), offers a crucial potential to use the criteria about location selection in the deciding phase. GIS can be distinguished from other methods that it makes location selection not only based on the candidates within the determined area but also with the available data and therefore finding the most suitable location for facility establishment. In this paper, a hybrid model was created with application of Analytic Hierarchy Process (AHP) which is a methodology of GIS. The case study about the developed model has been conducted in Germany's Bremen city.

Keywords: freight village, logistics center, GIS, AHP

Method for Comparing Perceived Economic Impacts of Mega Transportation Project Alternatives

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Abstract

The aging transportation infrastructure and the shrinking funding for new projects increase the importance of proper decision making in any transportation project, especially Mega Transportation Projects (MTP) in which significant amounts of tax-payer money is invested. MTPs play an important role in economic development at local and national levels. Therefore, one of the major decision indicators for an MTP appraisal is its perceived impact on enhancing economy. The traditional Cost-Benefit Analysis method for project appraisal does not capture the wider economic impacts of MTPs. Despite numerous studies on the subject matter, a method to evaluate different project alternatives at the early stage of decision-making based on the perceived economic impacts is needed. Most of the existing methods are either very sophisticated or need extensive data. The objective of this research is to develop a framework to assess and predict the potential economic developments as a result of each of the investigated MTP project alternatives. Using the Bayesian Belief Network modeling technique, a comprehensive inventory of the relevant economic development factors and interrelationships between them was established. These factors were identified through an extensive literature review and then refined through a questionnaire survey and a set of interviews with experts. The proposed framework is used for the preliminary alternative assessment in a case study of Port of Miami Tunnel project. The case study investigates the decision-making process of key stakeholders related to prioritization of alternative projects for vehicular access to Port of Miami. The proposed framework will be useful for decision-makers especially in the early stages of project planning.

Keywords: mega transportation projects (MTPs), economic development, decision-making

Introduction

Mega Transportation Projects (MTPs), also referred to as major or capital transportation projects, are a particular group of transportation projects that usually require substantial investment (\$1 billion or more) and generate significant economic and social impacts (Bruzelius, Flyvbjerg, & Rothengatter, 2002; Li & Guo, 2011). These kind of projects usually act as a single solution for multiple or massive transportation problems; and,

therefore, they are more preferred by governments and transportation agencies recently (Dimitriou, Wright, & Ward, 2011).

Decision-making to find the best design/project alternative for MTPs is not a simple process because of the shrinking budgets and increasing needs. Evaluating the expected impacts of decision alternatives and policies on the performance of existing or planned transportation systems is required before making the final decision. Several factors are likely to influence the decision-making process. Such factors could be categorized as economic development (such as job increases); environmental impacts (such as air, water, or noise pollution); social impacts (such as community effects, and land-use shifts); project costs (such as initial investment and land acquisition costs); transportation benefits (such as travel time save and accessibility); technical issues (such as changes in facility condition, vulnerability, constructability, and facility and user safety and security); financial issues (such as availability of fund, and public-private-partnership) and political issues (such as political discontinuity and neighborhood opposition). This study focuses on the impacts of the first category, “Economic Development”, and seeks a method to evaluate economic development of each MTP alternative in the beginning phase of project life cycle.

To achieve the objective of this study, first an extensive literature review was completed and the factors under “Economic Development” were identified. Then, a questionnaire survey of decision makers in the State Departments of Transportation (DOTs) and other related transportation agencies such as Metropolitan Planning Organizations (MPOs) was conducted to complete the list of factors. Finally, a framework to address the abovementioned problem was developed. The following sections explain these steps in detail.

Economic Development Impacts of Mega Transportation Projects: factors and existing methods

Economic development can be defined as efforts that seek advance toward economic goals of a nation or region. It can be measured by several means such as increased employment, income, productivity, property value, and tax revenues (Litman, 2010; Weisbrod, 2008). Transportation system changes have direct and indirect effects on economic development of a region, however the effects tend to be both positive and negative. New transportation facility can result in greater job opportunities while it can also create problems due to higher traffic levels near the new facility area (Forkenbrock, Benshoff & Weisbrod, 2001). Substantial research has been done to identify the economic impact of transportation projects. In this section a summary of the appraisal methods and important factors to assess the economic effects of different transportation projects are discussed.

Weisbrod (2008) divided the historically important mechanisms for transportation impacts on economic development into three main categories including: i) Mechanisms enabling economic development (i.e. the mechanisms with positive impacts such as “enabling new trade between industries and between locations”, or “Increasing productivity resulting from access to more diverse inputs and broader markets for outputs”); ii) Mechanisms reducing economic development (i.e. negative impacts such as “Congestion-induced negative impacts on trade flow volume, travel time, cost, reliability and market access”); and iii)

Aspects of transportation performance (such as “Logistics processing time and expense” or “Reliability of schedule”) (Weisbrod, 2008).

There are a variety of methods for assessing how a transportation change affects travelers and community. Litman (2010) compiled a list of evaluation methods to assess “Economic Development” of transportation projects. A summary of the methods is presented in Table 1.

Table 1: Evaluation Methods to Assess “Economic Development” of Transportation Projects (Litman, 2010)

Economic Development evaluation methods	Anticipated outcome
Input-Output tables	predict the impact of changes in expenditures on economic activity in a particular geographic area or industry
Real estate market analysis	predict changes in property value and tax revenue due to improved access and local traffic impacts
Integrated transportation economic evaluation models such as Transportation Economic Development Impact System (<i>TREDIS</i>)	quantify costs savings, productivity, employment, incomes and business growth based on personal and freight travel time and cost, reliability, logistics efficiencies, congestion, and ground access to intermodal terminals for various modes
Fiscal impact analysis	evaluates how incremental public infrastructure and service costs compare with incremental government revenues from development fees and taxes
User and market surveys	determine people's respond to specific transportation system changes, the value they place on these changes, impacts on their costs and expenditures, and user recommendations for improvement
Policy analysis	determine whether specific transport policies and planning practices favor higher value trips and more efficient modes
Special studies to evaluate specific economic impacts	evaluate a policy or program effects on household affordability (from transportation cost savings) and wealth generation
Case studies	predict impacts, and to identify problems and potential improvements, in similar situations

Most of the existing methods were developed to be used in the detailed feasibility study where there are more certain data available. A macro level impact assessment is needed in the beginning stage of MTP planning, i.e. front-end phase of project, where sufficient detailed data is not available. The main difference of the proposed model in this study from the current methods is that it provides a macro-level view on the MTP alternative assessment problem based on “Economic Development” using a comprehensive list of interrelated and influencing factors. Table 2 shows the critical factors found from the literature.

Table 2: Critical Factors Influencing the Economic Development

Critical Factors Influencing Economic Development	
Increase employment opportunities	Facilitating more efficient trade
Increase incomes of business/property owners	Extending geographic markets
Improve business productivity	Improving convention business
Improve tourism	Freight cost saving
Increase inward investment	Business travel time saving
Making a greater labor force available	

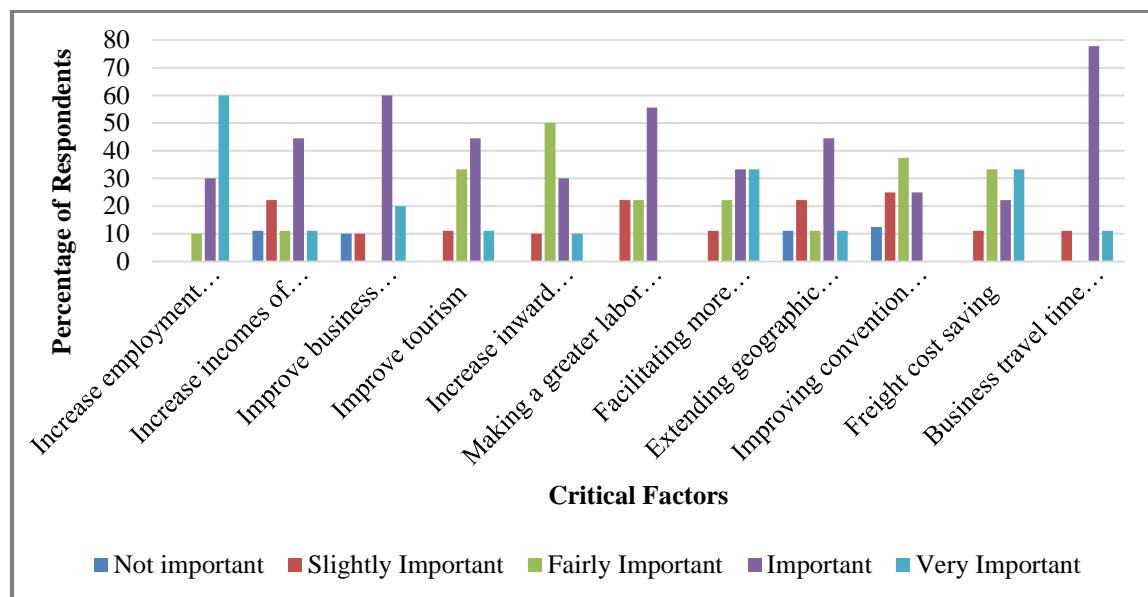
Questionnaire Survey and Interview

The current study is a part of a holistic research about decision-making in the front-end phase of MTPs. A comprehensive survey of state Departments of Transportation (DOTs) and other relevant transportation agencies such as MPOs and FHAW was conducted for the purposes of that research. A section of the questionnaire was related to the influence of “Economic Development” on decision-making process and the critical factors under this decision indicator. In this particular section of the questionnaire, respondents were asked to evaluate the importance level of the critical factors identified for “Economic Development” decision indicator. The online questionnaire was submitted to more than 120 relevant experts, and total of 12 acceptable responses are received, yielding an approximate response rate of 10%. Respondents are from different states in the U.S. including Colorado, Florida, Kentucky, Missouri, New York, North Carolina, Ohio, Tennessee, and Washington D.C.

The result of survey indicated that all the respondents agreed that “Economic Development” is an important decision indicator in the decision-making process of MTPs; moreover, 11 respondents out of 12 mentioned that their agency already considered this decision indicator in the process. In addition, respondents assigned importance levels to the eleven critical factors identified for “Economic Development” through the literature review. Among them “Increase employment opportunities” was rated far above the others followed by “Business travel time saving” and “Facilitating more efficient trade”. “Freight cost saving”, “Improve business productivity”, and “Improve tourism” were the next important factors. Then “Increase inward investment”, “Making a greater labor force available”, “Increase incomes of business and property owners” and “Extending geographic markets” received intermediate level of importance. The least important one was “Improving convention business”. Table 3 summarizes this information and Figure 1 shows the assigned importance level for these critical factors.

Table 3: Importance Level of Critical Factors under “Economic development”

Critical Factors of “Economic development”	Is currently used in evaluation?		Importance Level (Mean value)
	Yes	No	
Increase employment opportunities	7	3	4.50
Business travel time saving	4	5	3.89
Facilitating more efficient trade`	4	5	3.89
Freight cost saving	4	5	3.78
Improve business productivity	4	5	3.70
Improve tourism	5	4	3.56
Increase inward investment	4	5	3.40
Making a greater labor force available	2	7	3.33
Increase incomes of business and property owners	2	7	3.22
Extending geographic markets	3	6	3.22
Improving convention business	1	8	2.75


Figure 5: Assigned Importance Level of Critical Factors under “Economic development”

The survey results also revealed that only one of the given critical factors, i.e. “Increase employment opportunities”, is currently used by most of the respondent agencies in the alternative transportation project assessment system and decision-making process. The other critical factors are used by less than half of the agencies, although their assigned importance level is high.

The respondents were also asked to add any other important factors not included in the list based on their experience. Three factors including “Reliability of freight trips”, “Intermodal connections” and “Effects to household incomes” were suggested. These factors were added to the final inventory used for the proposed framework.

The next section explains the development of the proposed framework based on the refined list of critical factors.

Proposed BBN Framework

The underlying assumption of this study is that the assessment of the “Economic Development” impacts of a transportation investment alternative can be facilitated through a set of interrelated factors. A list of these critical factors were identified and refined through previous stages of the research. A generic influence pattern delineating the interrelationship between the factors and the decision indicator was established. The influence pattern and interrelationships were extracted from the literature and expert opinions through the conducted interviews. A probabilistic Bayesian belief network (BBN) model was developed to establish the influence pattern of the factors in this study. A Bayesian belief is a statistical modeling base that can be described in terms of a qualitative component, consisting of a directed acyclic graph, and a quantitative component, consisting of a joint probability distribution (Kjaerulff & Madsen, 2008). The joint probability distribution includes a set of conditional probability distributions directed by the structure of the graph. BBN is capable to explicitly model causal factors (Fenton & Neil, 2011). This modeling framework enables analysis of relationships between factors using the Bayes theorem which is defined as:

$$P(B|A) = \frac{P(A|B)*P(B)}{P(B)} \quad (1)$$

The Equation 1 can be generalized for multiple conditional probabilities as:

$$P(B_i|A) = \frac{P(A|B_i)*P(B_i)}{\sum_{k=1}^n P(A|B_k)*P(B_k)} \quad (2)$$

The construction of a Bayesian network thus runs in two phases. First, given the MTP alternatives at hand, the relevant factors of the decision indicators (nodes) and relations among them were identified (results in the generic BBN shown in Figure 2). Then a set of conditional probability distributions was assigned to the nodes based on the specified dependencies on the graph.

To conduct the second phase in constructing the BBN, i.e. relationship quantification, two typical methods are available. If the relationships between the belief network variables do not change in different applications, a generic quantification can be captured from available data and statistical approaches. Such belief network will not require any changes for multiple uses. The other approach is to enter the required input values by the users, which can be a labor-intensive task, requiring a great deal of skill and creativity as well as close communication with problem-domain experts (Bayraktar & Hastak, 2009; Kjaerulff & Madsen, 2008). In this study the former approach was chosen due to the unique specification of each MTP and lack of enough historical data.

Three types of nodes were defined in the BBN model based on the factor relationships: (i) starting node prior probabilities that are the nodes without parents; (ii) intermediate node conditional probabilities which have both predecessor and successor nodes, and (iii) target node conditional probabilities which is the Decision Indicator (“Economic Development” in this study). Each node can have multiple states with different likelihood to happen. The prior probability of the starting nodes can be extracted from external factors.

To illustrate the belief network and its calculation algorithm, a numerical example is provided in the next section.

Numeric Example for Port of Miami Port Tunnel

In order to illustrate the main body of the proposed framework, i.e. Bayesian Belief Network, a numerical example is provided here. Calculation for a part of the BBN is explained in details here. The Miami Port Tunnel case has been studied as the example. For the purpose of simplification, just two alternatives (one of the tunnel alternatives and one of the bridge alternatives) have been considered and tested using BBN. Since the whole network follows the same equations and rules, only one part of the network regarding “Environmental Impacts” is discussed in details. The objective of this example is to find out which of these two alternatives have better anticipated “Economic Development” impacts and will be a better solution from economic point of view.

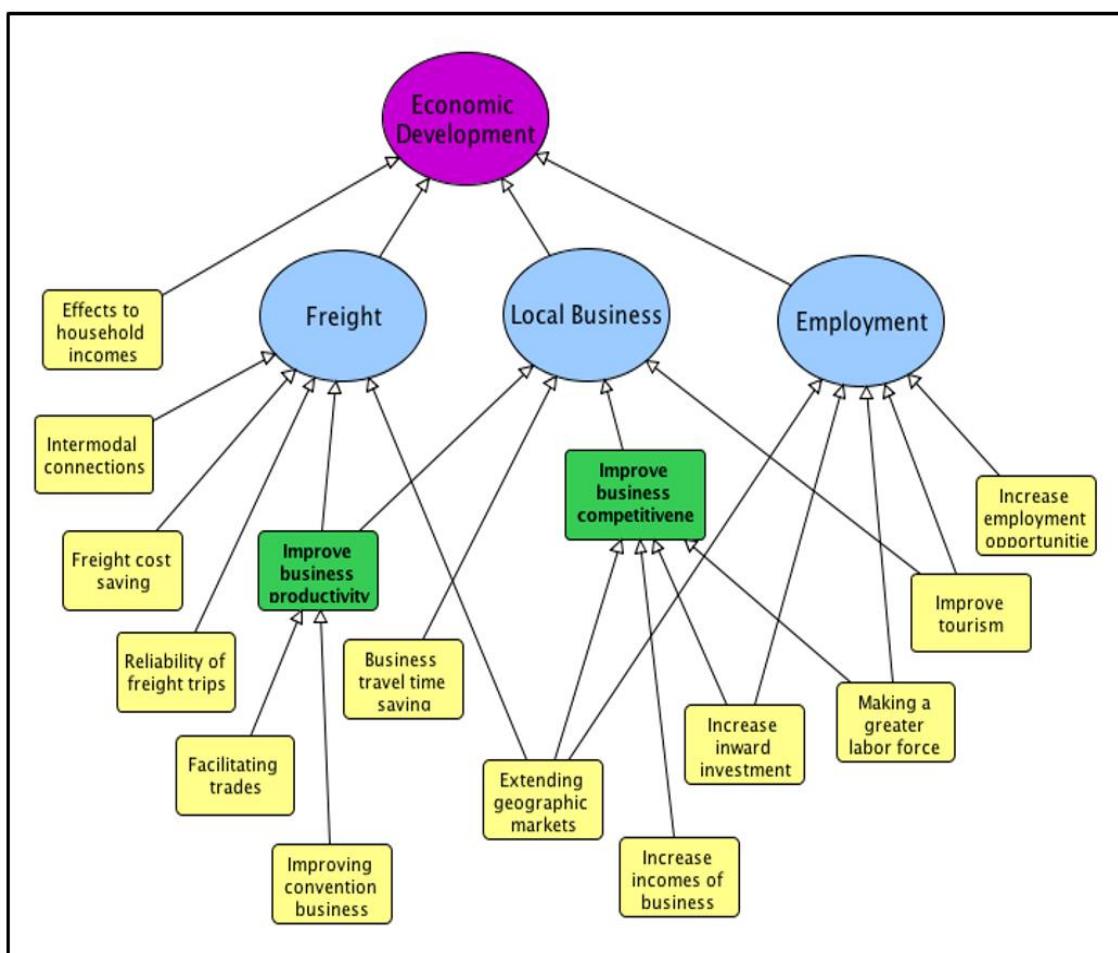


Figure 2: Generic relationships among the critical factors

Miami MPO identified a need for vehicular access to Port of Miami in 1980s. The project team suggested five different alternatives for evaluation including three basic alternate tunnel crossings as follows:

Alternative 1 - A tunnel running parallel to the existing Port Boulevard bascule bridge and connecting to Biscayne Boulevard.

Alternative 2 - A tunnel running parallel to the existing Port Boulevard bridge and curving to the north and running adjacent and parallel to the shoreline and connecting to I-395.

Alternative 3 - A tunnel from Port of Miami crossing diagonally under the Main Channel and connecting to MacArthur Causeway on Watson Island.

And two potential bridge alternatives as follows:

Alternative 4 (Shore Line) - Starting at the westernmost end of Dodge Island, this corridor parallels the new Port bridge, then curves to the north and runs parallel to the shore line or the inland edge of the FEC tract and Bicentennial Park. It then joins the I- 395 corridor via another curve.

Alternative 5 (FEC Railroad) - This corridor starts at the westernmost end of Dodge Island and parallels the new Port bridge, continuing west along the FEC railroad alignment to I-95.

In this section, alternatives 3 (A tunnel from Port of Miami crossing diagonally under the Main Channel and connecting to MacArthur Causeway on Watson Island) and 4 (A bridge starting at the westernmost end of Dodge Island, this corridor parallels the new Port bridge, then curves to the north and runs parallel to the shore line or the inland edge of the FEC tract and Bicentennial Park. It then joins the I- 395 corridor via another curve) are studied to show the proposed BBN application. Figures 3 and 4 depict the location of each alternative in the project site.

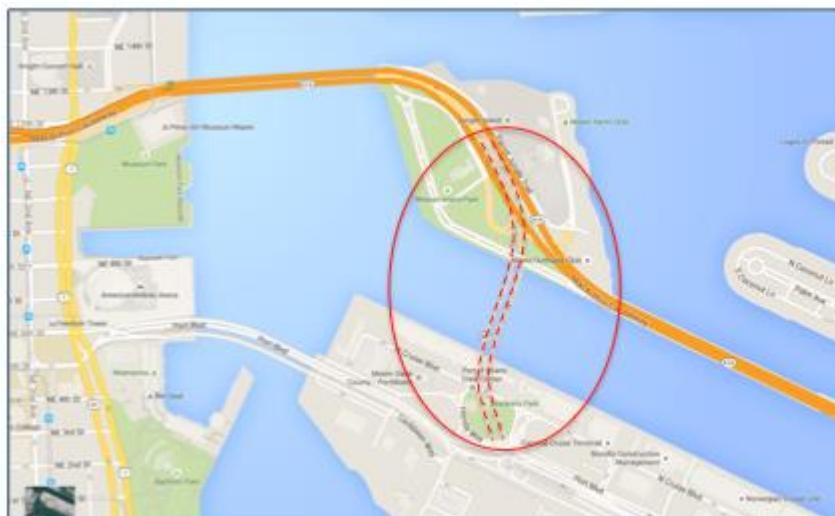


Figure 6: Alternative 3- Tunnel connected to I-395 from Watson Island

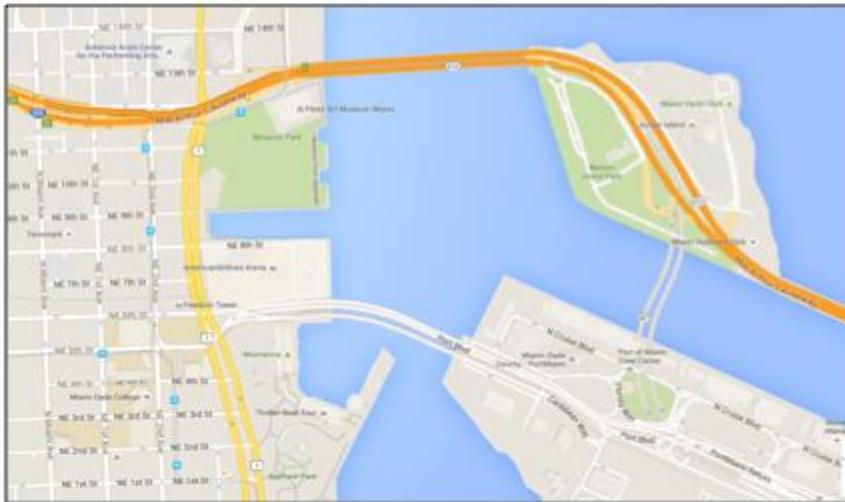


Figure 7: Alternative 4- Bridge and shoreline connection to I-395

As discussed earlier, the created network for “Economic Development” decision indicator with the critical factors under it and the relationship among the factors are shown in Figure 2. The model was run for 2 alternatives after developing the network with specific relationship between the factors based on findings from the literature review and questionnaire survey, and assigning particular states and their probability to each factor based on expert opinion through interviews. Figures 5 and 6 show the achieved probabilities in the network for the two different scenarios (tunnel and bridge alternatives), respectively.

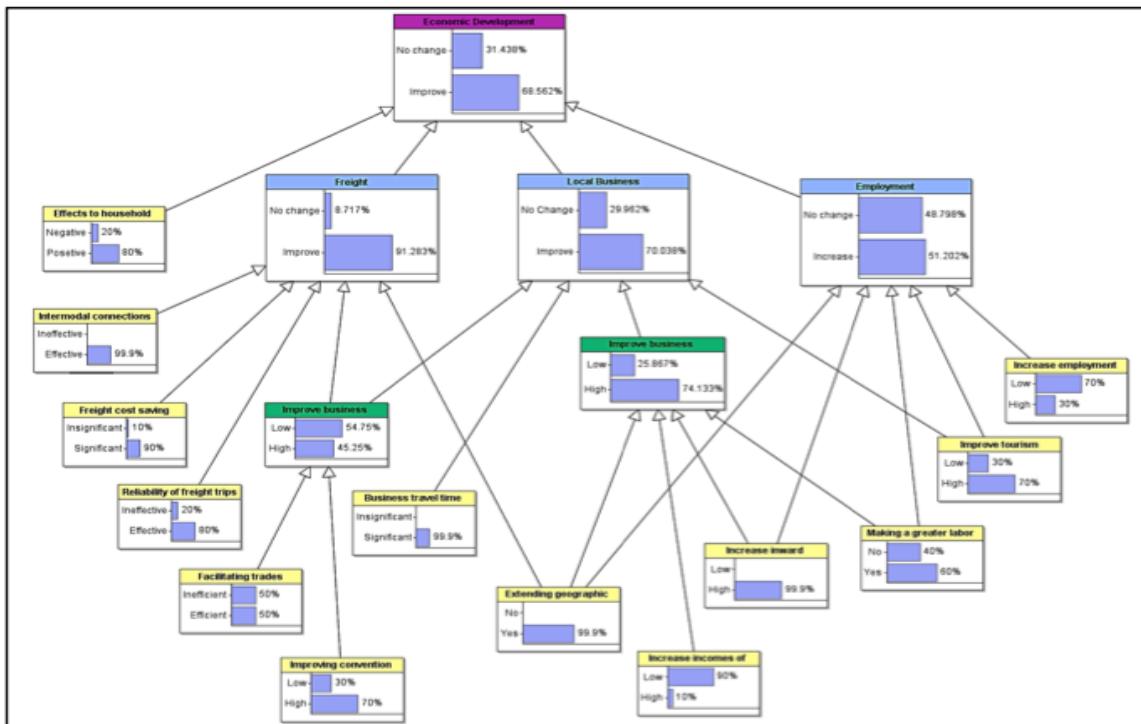


Figure 8: Calculated conditional probabilities for BBN nodes of Economic Development under Tunnel scenario

Based on the results of this model, shown in Figures 5 and 6, the Probability of Tunnel alternative to have improved economic development is 68.5% while for the Bridge alternative it is 61.4%. This provides the decision-makers a metric to consider the uncertainties of factors involved in this Decision Indicator. The difference between the two scenarios is not significant, that was expected due to having same situation in most of the factors for both scenarios. However considering other decision indicators in the holistic model will simply differentiate the alternative scenarios. Finally, the decision-makers can use a Multi Criteria Decision Model (MCDM) to find the final solution. Using the MCDM enables the decision-makers to give various weights for different Decision Indicators and include the stakeholders' preferences.

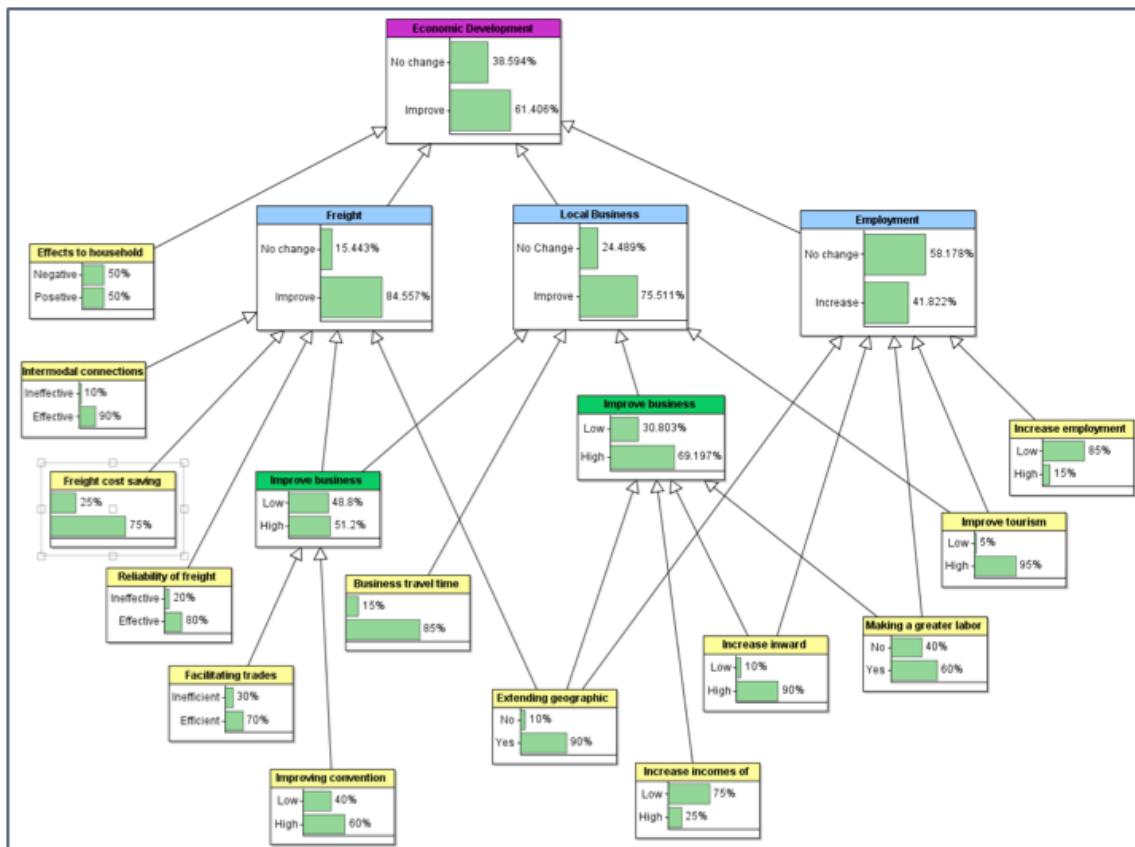


Figure 9: Calculated conditional probabilities for BBN nodes of Economic Development under bridge scenario

Table 4 shows a sample node probability table of the dependencies in the model for one of the factors, “Improve business productivity”. It includes the states for the parents’ nodes and the conditional probability and dependencies between them. To simplify the numerical example, all the factors assumed to have only two states. After identifying the dependencies and entering the primer probability of starting nodes, the probability of intermediate nodes and the target node (Decision Indicator) would be calculated by running the software (AgenaRisk is used for this study).

Table 4: Node Probability Table for “Improve Business Productivity”

Factor	States			
	Low		High	
Improving convention business	Inefficient	Efficient	Inefficient	Efficient
Facilitating trades				
High	0.9	.65	.75	.15
Low	0.1	.35	.25	.85

Conclusions

For transportation agencies, there is a need and interest in evaluating the regional economic development impacts for individual transportation projects. Specifically, in major projects that require higher levels of investment and have bigger scopes, i.e. Mega Transportation Projects, the importance of evaluating the anticipated Economic Development impacts is very high. The existing methods either need vast amounts of data and/or cover only a limited number of relevant factors. This study proposed a Bayesian Belief Network assessment framework to evaluate Economic Development impact of MTPs. The framework was illustrated through a numeric example. The graphical nature of belief networks enable the framework to adjust to add or remove factors. Therefore, it can be customized for every MTP based on specific needs and conditions. The current paper is a part of a holistic study about entire decision-making process in the front-end phase of MTPs. The integrated framework will facilitate decision-making process of MTPs in the early stage of project planning and provide decision-makers with a robust metrics.

Acknowledgements

The authors would like to thank the financial support provided by The Scientific and Technological Research Council of Turkey (TÜBİTAK) during this research. TÜBİTAK is the leading agency for management, funding and conduct of research in Turkey.

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Capturing Movements and Making Prediction for Banks' Stocks: An Investigation via Box-Jenkins Approach

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Abstract

Bank stocks have been considered to be lucrative equity investments in Karachi Stock Exchange (KSE), Pakistan, over the recent period. Therefore, investors are interested in making prediction about their future prices so that the objective of wealth maximization can be achieved. This brought the motivation for selecting five big banks (known as Big Five) for the purpose of predicting their stock prices. The date of stock prices for selected banks has been collected over a decade from official website of KSE. For the purpose of prediction, well known Box-Jenkins technique has been applied. After identification, estimation, and application of various diagnostic checks, ARIMA (1,1,0) was found to be suitable for prediction of stock of ABL, HBL and MCB; on the other hand, ARIMA (1,1,1) was found to be appropriate for BOP and UBL stocks' prediction. The study is highly significant to help investors decide which bank they should consider for investment thereby making their expected returns realize.

Keywords: residuals, ACF,PACF, ARIMA

Risks of Internal Control and Fraud Preventing Strategies in the Lodging Industry

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Abstract

According to Association of Certified Fraud Examiners (ACFE), *2014 Report to the Nations on Occupational Fraud and Abuse* (the report), a typical organization loses 5 percent of revenues each year to fraud. If this applies to the 2013 estimated Gross World Product, this translates to a potential projected global fraud loss of nearly \$3.7 trillion. The median loss caused by the frauds in the report was \$145,000. Additionally, 22% of the cases involved losses of at least \$1 million. The median duration – the amount of time from when the fraud commenced until it was detected – for the fraud cases reported to ACFE was 18 months (ACFE Report, 2014). Fraud, as an aspect of corruption normally happens in organizations where the governance structures are weak or have become corrupted themselves. This is a worldwide trend, which cuts across all sectors (Hansen, et al (2005)). Financial professionals in the hospitality industry might wonder how much of this information is pertinent to their organizations and their individual responsibilities in relation to improving fraud prevention and detection (McFarland and Newman, 2013). Implementing an internal control system is believed to be one of the fraud prevention strategies. The likelihood of fraud occurring can be reduced by implementing effective antifraud programs and controls that can identify fraud in a timely manner and minimize the resulting damage (Deloitte, 2004).

Keywords: occupational fraud, internal control, hospitality industry, Fraud triangle, Fraud prevention