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The mission of this journal is to publish empirical research that tests, extends or builds business management theory and contributes to retail management practice. All empirical methods including qualitative, quantitative, field, laboratory and combination methods are welcome. In order to be published in JBRMR, a manuscript must make strong experiential and theoretical contributions and highlight the significance of those contributions to the management field. Thus, preference is given to submissions that test, extend or build strong theoretical frameworks while critically examining issues with high importance for business management theory and practice. The JBRMR is not tied to any particular discipline, level of analysis or national context.

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The objectives of the JBRMR are to attract and publish theoretical, conceptual, and empirical manuscripts from academics and professionals from all disciplines regarding a wide range of contemporary issues in business and retail management. The aims of the journal are to disseminate knowledge; provide a learned reference in the field; and facilitate communication between academic and research experts, and executives.

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Journal of Business and Retail Management Research (JBRMR) Volume 11 Issue 1 October 2016

Editorial Comments

This edition of the *Journal of Business & Retail Management Research (JBRMR)* contains fourteen scholarly articles conforming to the principal objective of the journal, namely the dissemination of both applied and theoretical knowledge. It is heartening to see academics from a broader range of countries submitting papers for consideration for publication, something which is beneficial for mankind as a whole. These papers take the reader on a journey to various parts of the world and provide a thought provoking insight into a range of issues. The findings of a number of these papers are significant not only for academicians, but also for professionals, policy makers and those responsible for local, regional and national economic strategy. There is much that we can learn from such papers, not least in making sure that the case studies used and taught are more representative of the world at large.

The first paper of this issue is by **Van Scheers** and is entitled: **How do entrepreneurs measure success in South Africa?** The interest in entrepreneurial activity continues apace, and yet one point made abundantly clear by this paper is the absence of a consensus when it comes to defining what an entrepreneur is and does. This is an important point that is itself very telling; on thinking about it I found myself recalling the descriptions made by four blind individuals when asked to describe an elephant after being permitted to touch it for a few moments, each varied considerably and yet were all accurate so far as they went. If Academia cannot agree on a definition about what constitutes an entrepreneur, is it any wonder that students of business often detect inconsistency in some quarters. The point made by van Scheers about entrepreneurs being an 'agent of change' is one we would all do well to take note of.

Whilst South African entrepreneurs may, in common with others, be fixated with profit, it was heartening to see mention of the values espoused by Deamers (2014) - namely: honesty, duty, responsibility and ethical behaviour. Far from being optional extras, these values need to be universal, all the more so in the light of significant publications such as *Financial Aspects of Corporate Governance* (1992) aka *The Cadbury Report*. In the light of such values being highlighted maybe we should be asking searching questions about their apparent absence when it comes to the teaching of most business studies courses. Education has a central role to play, and yet few case studies relate to small enterprises, and even fewer to those with operating in an African context. As things stand a disproportionate number of the case studies and examples used in business schools and text book relate to the United States of America.

There are important questions that need to be asked about societal attitudes and role models. Are we too fixated with the supposed hallmarks of 'success', whether these be flashy cars, expensive homes etc.? Of course profitability should be an aim, but maybe societal definitions of profitability are themselves too narrow. Furthermore, the big beasts of the economy tend to receive all the attention, thus we would do well to look afresh at those smaller concerns, and in so doing maybe help tackle the problems of the haphazard approach of small entrepreneurs as highlighted in this paper. After all it is SMEs that can affect positive change, generate employment and help in the constant quest for social cohesion and economic growth and development. Anyone familiar with South Africa will fully appreciate that it is SMEs and not multinationals that will affect lasting development and a chance of greater social justice.

The role of word of mouth in commerce has always been seen as something of a double-edged sword. Customer recommendations can not only help promote a product or brand, but equally can do considerable damage. Sociologists and psychologists are often in a far better position to explain why people behave the way in which they do, especially when it comes to

the desire to disseminate bad news rather than good news. Thus the next paper: **The effects of characteristics of social commerce have on customers' purchase decisions - Jung & Cho** helps to remind us that word of mouth has a considerable role to play in commercial activity. The desire to understand what causes impulse buying remains as strong as ever, and in some respects echoes the ancient quest to turn base metals into gold. The means and manner of interaction between customers is significant and yet in some respects remains an enigma, one that challenges organisations.

The advent of social media has further complicated matters, and if anything has made the need to decipher what is going on all the more pressing. Brand awareness and brand consolidation are of paramount importance, and thus any additional understanding in respect of behaviour prediction is likely to be welcomed. Social media by its very nature is outside established power structures and the conventions that has been shaped down the years. Some might well see social media as somewhat anarchic, even subversive, and depending on one's age, difficult to comprehend. Businesses are having to come to terms with a medium that enables considerable scope for benchmarking, and opportunities for product/service promotion. Yet equally the word of mouth activity has the widest reach, so much so that it appears to be fuelling a degree of buyer promiscuity that is steadily eroding traditional retail bonds.

In the quest for retail customers many businesses themselves have embraced social media, and have also set about data mining with enthusiasm. Whilst some comfort is to be found in this, it is clear that many long held views about customer relationships and the role of word of mouth will require re-evaluation in the coming years.

The third paper of this issue is by **Puraj & Abdullah** and is entitled: **Corporate governance and capital structure of Malaysia family-owned business**. From the outset the choice of family-owned businesses is of interest, all the more so, for just as society at large has particular codes and structures, families have these also, albeit those that are often even more sharply defined. It is surprising that the issue of 'honour' does not appear in this research, for sociologists have long been fascinated by the internal family codes that operate as checks and balances and as control mechanisms. Some believe that families have spoken and unspoken codes aimed at ensuring a maintenance of the *status quo*, as well as minimising the attention of those outside the family, if this is so, this must surely have a very considerable bearing on the way in which family-owned businesses operate. Furthermore, there is the additional role of the patriarchy which still holds sway in Malaysia.

The authors are quite right to make reference to the *Cadbury Report* (1992), yet it would have been useful to have some explanation as to how deference inhibits candour and thus blunts genuine scrutiny. Boards of Directors the world over are faced with the twin challenges of competency and complexity. Ensuring that a board is made up of individuals who are there on merit, and possess appropriate expertise is a challenge in itself, then of course there is fact that financial, legal and technological instruments daily appear to become ever more complex and thus difficult to understand. Boards invariably find that many of the issues that they are having to deal with are decidedly opaque and here in lies danger. The development of a culture of scrutiny, transparency and flexibility needs to be a work in progress. It is certainly useful that we have been reminded of the role that family owned businesses play in economies, especially as they invariably have a particular dynamic that deserves far greater attention.

Anyone familiar with the Fragile States Index (<http://fsi.fundforpeace.org/>) will appreciate that risk takes many forms. When it comes to FDI the current preoccupation is with regards to risk to possible investment, yet the next paper takes a new and refreshing take on the subject. **The FDI -political risk nexus: some new insights** by **Nelson, Soorea & Gokcek**

reminds the reader that the FDI relationship is in essence a power relationship. It also provides a useful insight into the origins of FDI in the aftermath of the Second World War, an era that was dominated by the US and in many respects had regulation, mechanisms and behaviour shaped by the US.

The FDI power dynamic is invariably an uneven one and herein lies risk. That is not to say there are not benefits to both parties, but the dice is invariably loaded, something that becomes abundantly clear when one examines the FDI relationship in the case of Turkey with Somalia, and China with the continent of Africa. Bangladesh makes for an interesting case study, especially in regards to what happened when for a time South Korean companies chose to heavily invest in its garment sector. Even highly developed countries such as the UK are from immune to such risk. The power dynamic around Chinese and Qatari investments has caused considerable comment and some disquiet. The fact that this study would appear to suggest that inflows of FDI actually reduce the degree of political risk and insecurity is interesting. There are of course other elements that could be explored in the realm of ethics, the attitude of subservience that is sometimes engendered, as well as the undue influence that is occasionally exercised. There is certainly plenty to think about here.

The next paper is entitled: **Knowledge management, organisational innovativeness, business competitiveness and potential operation of electronics and electronic businesses in Thailand** by **Jantarajturapath, Imsuwan & Wongsim**. All businesses need to be aware of the value of data, yet many are facing a data glut, where at times there is a very real danger that certain systems and personnel are being overwhelmed by what is being collected. Storage, processing and interpretation is proving to be a real challenge, as is the ability to see the wood for the trees. Matters are made more difficult by the loss of organisational knowledge and wisdom caused by staff turnover, an issue which all too often is not given the attention it deserves. Data capture and protection need to be methodical and in compliance with the law. Effective mechanisms for knowledge transfer are also essential. This paper highlights the importance of data management as a means not only of assisting organisational effectiveness and the meeting of organisational goals, but as a way of helping the process of innovation, a factor that is essential for a sector that deals with technology.

Whilst there are some interesting points raised here, some might find it rather surprising that lean management has not been mentioned, this does help ensure greater clarity of purpose. Measuring the degree to which an organisation is able to innovate is always problematic, and whilst certain measures have come into being, there is still a belief that this is largely subjective. It would have been useful to have rather more detail here about the local context, for this undoubtedly has a bearing on the drivers that foster change.

The insurance industry, even in times of economic turbulence remains a multi-billion dollar industry, which means that any additional insight in this industry is of interest. **Influencers of life insurance investment - an empirical evidence from Europe** by **Aditi Mitra** proves to be a fascinating read. Far from being a dry subject, insurance and the motivation and workings of the insurance market afford us some useful glimpses into our own preoccupations, as well as into the degree of development of different insurance markets and sectors. A visit to Lloyds of London (www.lloyds.com) soon blows away any misconceptions that we may have about the world of insurance.

Mitra's analysis of cultural variables is important, and the observation about the role of individualism makes perfect sense. The analysis of Europe as a whole is ambitious, not least because of the sheer number of countries, each with different economic and political traditions. Degrees of maturity in the market place cannot be ignored. The study itself was undertaken

during a time of economic difficulty and this itself will have impacted on the insurance industry. The observation that; "Life insurance demand decreases in inflationary periods." is indeed a pertinent one, the same could be said to be true on times of intense economic uncertainty. Whilst wide disparities clearly exist, there is a growing body of evidence that shows just how international sectors of the insurance industry have become. New products and services have become integral to the way in which insurance does business, with online platforms offering a new and dynamic means to offer products and engage with both new and existing customers. A paper of this nature certainly encourages one to think afresh about insurance, not just in regards to growth in Europe, but for the potential for development elsewhere.

The ubiquitous nature of ITC has transformed the way in which most of us conduct our lives. The very utility of various devices has made them integral to life to such a degree that we have become dependent upon them. Just as this is true of mobile devices, tablets, laptops etc. in our personal lives, it is even more so in much of the world of work. With this grow has come a wealth of opportunity for those of a criminal disposition, thus those at the forefront of holding off vexatious or malicious attacks carry a tremendous burden, one that appears to be growing by the day. The next paper: **The influence of information security technostress on the job satisfaction of employees** by **Park & Cho** helps to underscore the gravity of the situation, one in which productivity can be adversely affected and in which role stress rises, with all the attendant problems that ensue.

It is important to remember that the threat of cyber-attacks and crime is such that key ITC personnel are expected to be in a constant state of alert. There simply is no respite and attacks and breaches can come at any time. Routinely others reflect their anxiety and frustration onto those in ITC roles, a fact that is often made worse by the seeming ignorance on the part of most end users. This paper highlights the causes of information security technostress; work overload, complexity, insecurity, invasion and uncertainty. It is also worth noting that in most boards of directors there is minimal understanding of the threats and stresses involved, and as a result relevant departments are under-resourced both in regards to staff and equipment. Park & Cho have elucidated some of the problems with clarity, and it behoves us all to reflect upon organisation effectiveness and the way in which appropriate safeguards are put in place, not only to protect against cyber-threats, but to ensure key staff do not have to endure excessive technostress. *Towards a cyber governance maturity model for boards of directors* (von Solms 2016) is essential reading. Sadly, I fear that we are going to hear much more of information security technostress in the coming years.

For the next paper we return to the subject of Foreign Direct Investment (FDI), a topics that has garnered more and more interest since the advent of globalisation. **How to increase FDI flows: a demonstration of the new determinant creation theory for Mexico and Chile** by **Botello & Davila** seeks to examine the mechanisms by which both a North American and a South American country go about attracting much needed FDI. In their respective areas of endeavour Mexico and Chile have proved successful and thus it is useful to see how they have gone about this, not least as their models could well prove useful to other nations wishing to pursue a similar path. Whilst the determinants vary, there is some degree of overlap and this reinforces the notion that there are common elements required in the quest to attract FDI. Central to such initiatives is the role of national governments, as tax and legal frameworks play a central role. Diverse other facts can create pull factors, but it is also important to be mindful of the fact that geography, language and perception all play their part. Where once much of the emphasis was on cheap labour, increasingly there is a realisation of the value to be gained from

being able to access a pool of talented individuals that are educated to a high level. Mexico has proved particularly adept at capitalising on this aspect of attracting FDI.

The authors have done the wider world a considerable service not only by underscoring the Mexican success story, but also bringing to its attention what is taking place in Chile, a country that is all too often overlooked. As the tectonic plates of world trade continue to shift, it is more important than ever to be alert for new examples and templates that have a relevance beyond mere theory. A paper of this nature is a useful reminder of just how important it is that we search for the real narrative, rather than the narrow jaundiced one peddled by much of the mainstream myopic media.

The next paper is entitled: **Dividend announcements effects on stock market returns: a comparative study between conventional and Shari'ah compliant stocks on Bursa Malaysia** by **Harbi & Bujang**. The inexorable rise in the interests in Sharia finance has been driven in part by the desire to find a viable and ethical financial system in the era post the global economic crisis of 2008. Naturally, this has largely been driven by countries that are wholly or predominantly Muslim in nature, although London is also proving to be a centre of considerable expertise in this regard. This paper sets out to examine the nature of Sharia and non-Sharia stocks traded in Malaysia with a view to seeing if there is any evidence of any differences in behaviour in respect of dividend announcements.

The composition and model deployed by the paper appears convincing, although it would be interesting to see the paper taken a step further by benchmarking the behaviour of the said stocks against similar stocks traded elsewhere. We might wish to ask what the underlying cultural drivers are, how officialdom is steering 'good citizens', and the extent to which there is additional cache/social esteem in consciously trading in specific stocks. Conscious and subconscious behaviour plays a role in all our actions, and thus academics cannot afford to ignore the factors that direct both public and private actions, even those involving stocks and shares. Bursa Malaysia (KLSE) is itself an entity that reacts to the vagaries of international markets, as well as local political conditions. The rise of religious consciousness, and the desire on the part of some to wish to publicly demonstrate their faith values in business is something that must not be downplayed or ignore. This paper does us a service in reminding us of some of the range of factors at play.

We stay in Malaysia for the next paper - **Inventory management practices among Malaysian Micro-retailing enterprises** by **Ahmad & Zabri**. There is a general appreciation that small and micro sized businesses are up against it when it comes to resources across the board. This paper certainly appears to confirm this. The issue of inventories is an important one, not least because of the need for efficiency, as no business can afford waste. The fact that inventories such as they exist are haphazard in nature highlights an area of risk that warrants greater attention and an appropriate response. Academia and government are all too often fixated with the processes of large and multinational companies, one only needs to look at the bulk of the case studies taught and discussed in business related courses to appreciate that smaller entities are neglected.

Efficient inventory systems not only help reduce corporate theft whether that be on the part of the supplier or indeed management, employees and even customers, it can help a company meet customer needs through effective supply and response. With the move to online business there are now a phalanx of monitoring tools designed to help businesses improve their operational effectiveness. As ever it is all a question of priorities, a point that Ahmad & Zabri appear to have underscored here. This paper makes mention of the role of staff experience and "the rule of thumb", both issues that should give cause for thought. What is particularly striking

about this research is the very fact that companies freely admit that they lack appropriate systems and yet appear to soldier on regardless. What is true of businesses in Malaysia is almost certain to be true of comparable businesses elsewhere.

From Malaysia we now moved to Thailand for a paper entitled: **The investigation of ERP and E-business effects in Thailand: A resource based view** by **Konthong, Suwan-natada & Sompong**. In a similar vein to the previous paper here there is an examination of the importance of systems, in this case with regards to e-business technologies. The findings here echo some of what was highlighted in the previous paper. That said, it is important to note that what might well sound good in theory and in an ideal world, is often more difficult to implement, especially in those organisations that have limited resources or access to appropriate training and implementation packages.

As unpleasant as it may sound to some, higher education is big business, and thus it is perfectly legitimate that occasionally it be viewed in that light. **Higher Education trade, liberalization and GATS commitments in the Arab Gulf Region: Challenges and regulatory reforms** by **Lobna Ali Al-Khalifa** sheds light on the fact that the Gulf Cooperation Council (GCC) states recognise the importance of the HE sector not only as a means by which a nation improves its' national competency, but also as a means of creating employment. The point about the move to liberalise national economies is significant, especially in the light of the move to reduce the current dependence on petroleum and petroleum related industries. Talk of push-pull factors is significant, as is the fact that Arab countries are having to compete globally and thus must offer value for money and be willing to benchmark themselves against other providers. Some might well view recent developments as symptomatic of economies that are becoming more mature, and thus realise the need for a highly trained work force.

An important point made here is in regards to the drivers behind recent changes, these are not the same across the GCC. Whilst some changes have been brought about by royal edicts and government policy, in other countries the market place has been the catalyst for change. Local providers have been fortunate to have learnt much from the fact that many foreign institutions have been willing to establish offshoots in the region e.g. Manipal University Dubai and the University of Wollongong in Dubai. Please note that Dubai and the UAE are not the only places attracting such interest.

This paper's comprehensive overview of the dynamics of the HE sector amongst GCC members gives it added value, and it certainly provides some indicators of travel for the higher education in the region for the coming years.

Shopping malls have an almost talismanic quality, for some they are emblematic of a town or city's modernity and progress, for others they have a near quasi-spiritual nature that encourages people to frequent them regularly. Considerable effort and resources are expended in order to attract 'the faithful', for regular footfall is a primary objective. With this in mind we come to our penultimate paper: **An evaluation into the architectural factors attracting customers to Malaysian shopping malls** by **Said, Gambo & Ismail**. Whilst the title might suggest a study of aesthetics and relative merits of vernacular and foreign architecture, in point of fact the paper explores those features that shoppers rate highly.

Where once shoppers were prepared to tolerate glorified warehouses, now the increasingly sophisticated consumer has a range of expectations. Mall designers are faced with a range of challenges, not only in their quest to meet the demands of those seeking retail space, but in order to meet the needs of shoppers and browsers wanting a destination experience, one that offers a range of facilities. Malaysian shoppers are not alone in wanting ease of access,


convenient parking, a range of food outlets, entertainment and a shopping experience uplifted by an ambience and signature architecture.

The authors describe the findings as a “wake-up call” for those responsible for mall design in Malaysia. As well as managing to identify various priorities from the customers’ perspective, the paper raises issues concerning engagement. In truth, engagement is not often a word associated with the process of mall planning and construction, certainly not when it comes to potential shoppers, a one size all approach is all too common, as is the presumptuousness that results in a ‘like it or lump it’ attitude from architects and developers. Areas such as architectural merit and green credentials are rarely addressed with any enthusiasm. Is it any wonder then that so many of the malls that are built are at best mediocre, more often than not they are expensive white elephants that fail to live up to their billing, or at worse are actually blots on the landscape.

The final paper of this issue is entitled: **Employer branding: What constitutes: An Employer of Choice? - Ghadeer Mohamed Badr ElDin Aboul-Ela**. A perennial feature of papers of this nature is the fact that they are invariably grounded in questionnaires or research which by its very nature will skew the findings. If we are honest to ourselves, let alone to the world of academia, the vast majority of such studies address those who live in urban areas, and are more likely than not undertaken at elite private universities and institutions. These institutions by their very nature are often detached (in some cases literally) and are near hermetically sealed from the lives of ordinary citizens and especially disadvantaged groups and those deemed to be on the margins of society. Thus it is important that we factor this into our thinking when we endeavour to draw upon that which academia produces and lays before the wider world. That said, whilst the power relationship between employer and employee remains pivotal, it is by no means monolithic in nature and this paper makes it abundantly clear that the dynamic is undergoing a period of tremendous change.

The concept of employer branding is an interesting one, something that has given rise to the compilation of lists that themselves have become an important recruitment tool. One of the most famous list is that produced in the United Kingdom by *The Sunday Times*, annually it produces the following: *100 Best Companies To Work For; 100 Best Small Companies To Work For; 100 Best Not-For-Profit Organisations To Work For*. Whatever tools are deployed there will always be a degree of subjectivity to any such list, that said they serve a purpose and as such provide a model that can and is being emulated elsewhere.

The questionnaire used in this paper contains much that could fuel an entire editorial. I find that it is as much about that which has been omitted that intrigues me, especially when one reflects on the absence of direct mention of gender, workplace bullying or the spirit of solidarity and egalitarianism. Recent events in Egypt have not exactly helped when it comes to job security, unless one has powerful connections, and thus it is often these seeming extraneous factors that hold sway and yet remain undiscussed. There is certainly plenty here that warrants further thought and discussion, and such papers remind us of why it is important that academic journals break out from their enslavement to papers that have their origins in the Anglosphere. Academia is notorious for its cosy complacency, and thus it behoves us all to look for fresh case studies that challenge our received wisdom and the prevailing orthodoxies, for in so doing we might well learn a thing or two – something I certainly did reading these papers.



Dr P.R.Datta
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How do entrepreneurs measure success in South Africa?

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Keywords

Entrepreneurs, South Africa, Entrepreneurs' success, Characteristics, Measure success

Abstract

In this secondary research study the question was researched to establish how entrepreneurs' measure success in South Africa. In South Africa entrepreneurs' measure success by evaluating the profitability of the business; the reasons for starting such a business and effective managing of business information. Growing customer is indicated as the least important measuring criteria for the success of an entrepreneurial small business.

This research concludes that South Africa has too few people with entrepreneurial small business managing qualities which hamper measuring of the success of an entrepreneurial small business. Most entrepreneurial small businesses measure their success only by profitability which is a short term outlook. May be that is why so many entrepreneurial small businesses are unsuccessful leading to a situation where the South African economy performs poorly because only a few people succeed as real entrepreneurs small business owners.

1 Introduction

Modern interest in the entrepreneur can be traced back as far as the nineteenth century, but empirical studies of entrepreneurial behaviour are comparatively recent (Mitton, 2010). The majority of the research that has taken place on the topic of entrepreneurs has been to determine aspects of their background and personality characteristics that distinguish them from the general population. Far less research has investigated how entrepreneurs measure success. Success means different things to different people, but by and large, the success of a business is measured in terms of money. Measures of the amount of money a business made are measured in terms of turnover or net profit or cash flow or a combination of all of these. In this paper secondary research will be utilize to establish how entrepreneurs measure success in South Africa.

2. Research methodology

This research undertook secondary research to establish how South African entrepreneur small businesses measure success. The study was a preliminary study for the subsequent research in this field. The study was essentially textual as a substantial corpus of literatures were consulted.

3. Literature Review

Numerous literatures were consulted to establish how South African entrepreneur small businesses measure success, first, entrepreneurs are defined and characteristics of entrepreneurs described and lastly measurements of entrepreneurs' success will be outlined.

Defining Entrepreneurs

Research on entrepreneurs has failed to find definitive traits that define entrepreneurs (Deamer, 2014). There are, however, several definitions from various researchers that attempt to provide the most holistic definition of entrepreneurship. For example, it has been defined as the ability to create an on-going business activity where none existed before (Cunningham, 2014), while Thompson (2009) defines an entrepreneur as someone with a vision who spots a new opportunity and makes a conscious decision to act on it, starting something new. Throughout this review, opinions are presented from a variety of researchers. It will be highlighted further on in the review, just how diverse the points of view are on this topic. The definitions of entrepreneurship are endless, and so too are the supposed characteristics that entrepreneurs possess. There is, however, little

consensus. Carland et al (2011) concurs that entrepreneurial research has been hampered by a failure to define the entrepreneur, and the lack of agreement about the essential characteristics that contribute to making the entrepreneur successful.

Littunen (2010) believes that characteristics typical of a successful entrepreneur are the ability to take risks, innovativeness, knowledge of how the market functions, manufacturing know how, marketing skills, business management skills and the ability to co-operate. Timmons (2009) alternatively identified characteristics such as energy and raw intelligence as characteristics that the majority of successful entrepreneurs possess, while Goodman (2014) defines entrepreneurial characteristics as the consuming passion to succeed, a vivid imagination and a resolute sense of self-determination. He believes that successful entrepreneurs act out of choice and are never victims of fate. Goodman's (2014) research identified that with successful entrepreneurs, there is always a choice, a chance to succeed and a decision to see the unexpected as a challenge, not a crisis. Alternatively, unsuccessful entrepreneurs display uncertainty about their abilities and often blame the market and anyone or anything else that they can pin the blame on.

Deamer & Earle (2014) reviewed the literature extensively to reach a refinement of the definitions of the entrepreneur. They offered the following definitions are: The small business owner: "An individual who establishes and manages a business for the principal purpose of furthering personal goals. The business must be his primary source of income and consumes the majority of this time and resources. He sees it as an extension of his personality and intricately bound with family needs and choices." The entrepreneur: "An individual who establishes and manages a business for the principal purpose of profit and growth. He is characterized principally by innovative behaviour and will employ strategic management practice in business."

However, Van Scheers (2014) warns that owning or running a business does not make a person an entrepreneur. The key to entrepreneurship is creativity, innovation and being an agent of change. Many business owners are managers, running a business which they have copied from somebody else and they are managers and cannot be classified as entrepreneurs. A business owner may be classified as an entrepreneur only when he/she comply with one or more of the following:

- Introduces a new or improved product or service;
- Opens up a new market;
- Uses a new source of supply of raw materials; or
- Creates a new business.

Whatever specific business activity entrepreneurs are engage in they are considered the heroes of free enterprise and they all need to obtain managerial skills. Capable entrepreneurs and managers achieve goals successfully, resourcefully and achieve targets with the minimum waste of resources. Unfortunately, many South African entrepreneurs can rather be classified as small business owners. Next, characteristics of entrepreneurs will be discussed.

Characteristics of entrepreneurs

Characteristics of entrepreneurs are mentioned in the secondary literature include the following: the need for achievement, propensity for risk, tolerance of ambiguity, self-confidence, innovation, internal / external locus of control, ability to co-operate, always have a choice available, energy, focus, heightened awareness, imagination, ingenuity, initiative, knowledge of market, management skills, marketing skills, need for independence, raw intelligence, resolute sense of self determination, resourcefulness, vision, vivid imagination and willpower.

Cunningham (2011) agrees that entrepreneurs' needs, drives, attitudes, beliefs and values are primary determinants of what they do, and that more often than not behave in accordance with their values, despite variations in situations. This school of thought focuses on personality characteristics of entrepreneurs, including their unique values and attitude to work and life. These personality characteristics, along with certain dominant needs are thought to drive entrepreneurs to behave in

certain way, and can therefore be differentiated from non-entrepreneurs by personality characteristics.

Several authors, through their research, have identified various attitudes and behaviours that successful entrepreneurs possess, and that unsuccessful or less successful entrepreneurs, or the “non-entrepreneur”, are thought to lack. Again, it is clear that there is no consensus among authors as to what attitudes or core competencies are common among entrepreneurs. Furthermore, from the literature available, it cannot be said with any degree of certainty what characteristics or competencies are in fact necessary in order to increase the likelihood of achieving success.

Gardner (2007) believes that becoming a successful entrepreneur goes beyond having the necessary technical skills to produce or distribute a product. The entrepreneur must have vision, focus, ingenuity, resourcefulness and willpower. Entrepreneurship requires an overpowering need to achieve and a willingness to get into the trenches in order to resolve and overcome failures, while simultaneously learning and profiting from them.

Deamers (2014) states that the searches for characteristics that contribute to making an entrepreneur successful have consistently failed to provide definitive answers. Three personality characteristics have received considerable attention in the many publications on what makes entrepreneurs successful:

1. Personality values such as honesty, duty responsibility and ethical behaviour.
2. Risk taking propensity
3. The need for achievement

Nonetheless, the possession of all the characteristics listed above may not be enough to ensure a successful entrepreneur, and several other key characteristics are required to complement the three listed above. There is also a significant amount of literature available that suggests that entrepreneurs are born and not made. There is however consent among various authors including Littunen (2010) and Cunningham (2011), that entrepreneurs can in fact be made better by acquiring certain attitudes and behaviors, through coaching and learning.

Next the measurements of entrepreneurs’ success will be outlined.

Measuring entrepreneurs’ success

Defining the success of entrepreneurs appears to be a daunting task given the fact that dependable measures are often not available. Organizational success of entrepreneurs is seriously affected by their managerial competencies; in fact, decisions are mainly based on their personal skills and intuition rather than on analysis of information. Carland et al (2014) points out the entrepreneur usually adopts a highly personalised management style, tending to follow a “react and adapt” philosophy and fire-fighting strategies, focusing on short term horizons and not engaging actual strategic planning.

This implies that their needs in terms of performance measurement processes and tools are also different from those of larger companies (Littunen; 2010). Since entrepreneurs suffer from lack of resources, the performance measures should be very simple, synthetic and easily collectable, otherwise the effort needed for measuring would be higher than the benefit gained. Similarly also the procedures for measures collection should be well defined and resource effective. Vesper (2010) supports this view and suggests that the criterion employed to measure small business performance should be reliable, objective, relevant and simplistic. According to Gardner (2008) the success of entrepreneurs can be assessed, using the following measures:

- Profitability is probably the first thing people think about when measuring success.
- Growing customer base showing it effectively reaching target markets.
- Customer satisfaction is an indication that the needs of customers are understood.
- Employee satisfaction is another key indicator of business success.
- Owner satisfaction could also be viewed as a sign of business success.

Entrepreneurial small businesses present some distinctive characteristics that differentiate them from large enterprises. This implies that also their needs in terms of performance measurement processes and tools are different from those of larger companies (Collin and Moore, 2008). Since, entrepreneurial small businesses suffer from lack of resources, the performance measures should be very simple, synthetic and easily collectable, otherwise the effort needed for measuring would be higher than the benefit gained. Similarly also the procedures for measures collection should be well defined and resource effective.

In contracts, Coffey and Herrman (2006) believe that turnover has been the measure adopted by most researchers, and, in particular the growth in turnover, as a measure of success. Mitton (2009) agrees that turnover in terms of tangible contribution to the economy it is probably the best indicator. Other researchers such as Coffey and Herrman (2006) and Douglass (2006) also use this measure.

Vesper (2014) observes that many entrepreneurs do not have growth as an objective and consider their successful if they merely maintain profitability. Liles (2014) identified a type of entrepreneur whose principal objective was personal autonomy and whose income was often below what he would obtain if he were in employment, but he still considers himself successful. Timmons (2009), in a comparison between small businesses in Montreal and several cities in the United States, set the criteria for successful as having been in business for at least 5 years with a higher average return than the industry average. Hornaday & Aboud (2011) consider that staying in business for at least two years qualified a business as being considered successful.

In South Africa entrepreneurs' small business success is often measured by the reasons for starting such a business. A research study conducted by Van Scheers (2010) indicates that different reasons for starting the small business will most likely reflect the success of the small business. Entrepreneurs who have started small businesses to survive unemployment is more likely not to succeed but if they were inspired by formal sector experience the changes are great for success. The study indicates that 63 per cent has either lost or quit their jobs and had to come up with small business to survive in the economy.

The way entrepreneurs manage information is given as another reason for success. The research study conducted by Van Scheers (2010) indicates that data collection reflects that management of information collection in these businesses is below the normal business standards. Most relevant activities and transactions are not recorded. While most of these owners use files to store data manually it revealed to be error prone and inefficient but it is the most affordable and the easiest technology they can apply. It is important to remember that accidental entrepreneurs (people losing employment and have to start a small business to survive) are also challenged by the skills level and financial resources. While the managerial and marketing skills as a shortcoming could be overcome by hiring more skilled individuals to complement them, the respondents have highlighted that they lack finance to employ these skilled individuals. Lack of marketing skills is mentioned by various researchers as an important factor contributing to failure of small businesses in South Africa.

As the aim of this paper is to establish how entrepreneurs' measure success in South Africa a research study by Van Scheers (2014) gathers perceptions from entrepreneurial small businesses on how they measure their success. This study indicates that 66 percent of the respondents consider profitability as the most important measuring criteria for the success of a small business which was confirmed by Kuratko and Hodgetts (2011:36). Growing customer is indicated as the least important measuring criteria for the success of an entrepreneurial small business.

Conclusion

In this secondary research study the question was researched to establish how entrepreneurs measure success in South Africa. In South Africa entrepreneurs measure success by evaluating the profitability of the business; the reasons for starting such a business and effective managing of

business information. Growing customer is indicated as the least important measuring criteria for the success of an entrepreneurial small business.

This research concludes that South Africa has too few people with entrepreneurial skills managing small businesses which hamper measuring of the success of an entrepreneurial small business. Most entrepreneurial small businesses measure their success only by profitability which is a short term outlook. May be that is why so many entrepreneurial small businesses are unsuccessful leading to a situation where the South African economy performs poorly because only a few people succeed as real entrepreneurs small business owners.

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The effects of characteristics of social commerce have on customers' purchase decisions

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Keywords

Social Commerce, Word-of-mouth, SNS, Customer's, Purchase Decisions

Abstract

This research focuses on how the factors influencing the characteristics and the words-of-mouth effect influences the consumer's purchase decision. Especially, it was researched how the word-of-mouth influences the characteristics of social commerce and purchase decision.

As a result, decision-making support system and social influence seemed to have variables and influences on word-of-mouth effect, and cost-reducing and impulse buying did not seem to have any variables or influences on the word-of-mouth effect. Also, the variables influencing the characteristic of social commerce and word-of-mouth effect seemed to influence the purchase decisions of the consumer. The variables influencing the word-of-mouth effect seemed to be influenced much greatly by the characteristics of the sender and the receiver rather than the characteristic of the message.

This research has revealed that the word-of-mouth effect of social commerce influenced the purchase decisions of customers using social commerce. The significance of this research is in providing the basis for more efficient and effective marketing by social commerce corporations.

1. Introduction

Social commerce is a commercial services of consumer domain related to SNS(Social Network Services) developed from Web 2.0 with the characteristics of participation, sharing and opening. Social commerce is made through the two routes of mass communication in which dispersion of products or information is made directly between the mass media and the consumers and the word-of-mouth communication (WOM Communication) made between consumers. Whereas WOM communication is difficult for the corporations to control as they are activities of sharing the consumption information between the consumers, mass communications have been utilized aggressively as management and control is very easy from the corporation's perspective. From the domain of marketing, research on communication had been mostly focused on communication utilizing mass media, and research on WOM Communication, sharing of consumption information among consumers had been insufficient. [Jun & Park, 2003]. However, recently, as the advertisement costs of the corporations increased, and as new media's of the Internet and mobile are developed variously, the effect compared to the input costs of marketing through mass communication is decreasing, and as research results suggesting that the WOM Communication has a substantial influence in the product decisions of consumers are suggested. Corporations are recently trying to utilize WOM Communication as a new alternative to have efficient effects with little costs. Word-of-Mouth effects and word-of-mouth communication have been researched continuously in e-commerce and online shopping.

The relationship between the characteristic of social commerce emerging in online e-commerce and the word-of-mouth effect plays a large role in the consumption of consumers. [Bayus, 1985] analyzed the influence of word-of-mouth effect on the reactions of the consumer group, or the sales. In this research, the influence of word-of-mouth and marketing activities on sales are interpreted centered on marketing activities, considering the influence of marketing activities on sales as effect of direct marketing effect, and that word-of-mouth indirectly influences sales by being occurred by marketing activities.

In this research, by considering that such word-of-mouth effects have limited research on online and e-commerce, the relationship between the characteristic of social commerce in which communication is made in the web environment among consumers and the factors influencing word-of-mouth effect influences the purchase decisions of consumers is explored. Also, to explain the causal relationship between the characteristic of social commerce as individual variable and the purchase decision, as the dependent variable, factors influencing the word-of-mouth effect, and a mediation variable are input to explore how the characteristic of social commerce and factors influencing word-of-mouth influences the consumers purchase decisions.

2. A Brief Survey of Literature

Social commerce has the characteristic in which recommendations of friends or reliable acquaintances based on trust are important. Therefore, in social commerce, synergy effect is created by the combination of mobile based interactive e.g. smart phones and social media, and gossip. As the smart phones have been publicized, the media environment has changed. Especially, the biggest characteristic of social commerce differing from the existing Internet shopping is that it may expand to not only the online but offline domains based on the SNS. [Han et al., 2011] Also, as the utilization of various SNS enables the users to share evaluations of the products and services, or experiences, the consumers are able to conduct the roles of information creators and providers. The SNS plays the role of mediating the creation, gaining, and dispersion of new information through experiential attributes and tacit knowledge that the consumers learn after utilizing the products and services. Through this, the SNS may contribute to overcoming the qualitative limitations of information that used to be suggested to consumers. [Na, 2010]

There are various factors in the success of social commerce including credibility, product power, scope, brand awareness, number of members and contents [Shin, 2012]. Also, as social commerce is a business model based on trust, credibility, the basis of social commerce has been mentioned as the most important factors. According to [Ryuet al., 2013], the factors influencing the purchase intentions of consumers are the characteristics of social commerce (dangers, prices, cognitive information, collectivism, provision of information) and characteristics of service quality (content, commerce, community, design and technology). [Seo & Lee, 2011] noted that among the characteristics of social commerce, social characteristic, personalization and trust influence the purchase intentions of social commerce. [Cho, 2012] revealed that the higher the characteristic of social commerce (word-of-mouth effect, reciprocal characteristic, security, provision, provision of variety, discount of prices), trust (fame of the business) and the characteristic of user (characteristic of pursuing information, innovation), it influences the purchase intentions of the user, and [Cho & Yang, 2012] revealed that utility, value of pleasure, and utilitarian shopping value influences the purchase intentions.

There are various characteristics of social commerce. [Han et al., 2011] suggested them as the reduction of costs, impulse buying, social influence, decision making support and word of mouth effect in a research named "The Influence of Domestic Social Commerce on the Purchase Decisions: Based on the Controlling Effects of the SNS".

To confirm the relationship with word-of-mouth effect through the characteristics of social commerce and the success of business, literature review on the word-of-mouth effect was conducted. [Henning-Thurau et al., 2004] researched the motive of posting reviews on the Internet. As a result, desire to interact, economic incentive such as cost reduction, interest on other consumers, and the enforcement of potential value were extracted as important factors.

3. Data and Methodology

In this research, a research model was designed based on The Influence of Domestic Social Commerce on the Purchase Decisions: Based on the Controlling Effects of the SNS of [Han et al, 2011]. In existing research, the 5 variables of reduction of costs, impulse purchase, social influence, decision making support and word-of-mouth effect were set as individual variables to research the

influence on purchase intentions with the utilization of the SNS as a mediation variable. However, in this research, word-of-mouth effect, one of the characteristics of social commerce was set as a mediation variable.

There are many efforts on the existing word-of-mouth-effect, however, the justification of the word-of-mouth effect was justified based on "A Cross-Cultural Study on the Determinants of eWOM Effect" by [Park & Lee, 2006]. The first definition of word-of-mouth effect is the public confidence of social commerce, the characteristics of the sender. The second definition is justified as the characteristic of the sender by considering the product knowledge and the utilization of the Internet, and lastly the characteristic of the message, which is the direction of the word-of-mouth message and the channel. This research aims to deduct the characteristic of existing social commerce and factors influencing the word-of-mouth effect to see how they influence the purchase decisions of a consumer.

This research expects to determine the relationship between the characteristics of social commerce and the word-of-mouth effect, and how such variables influence the consumer purchase decisions. A survey was conducted with consumers with the experience of utilizing social commerce, the survey was analyzed, and each hypothesis was proved through regression analysis for verifying the hypothesis.

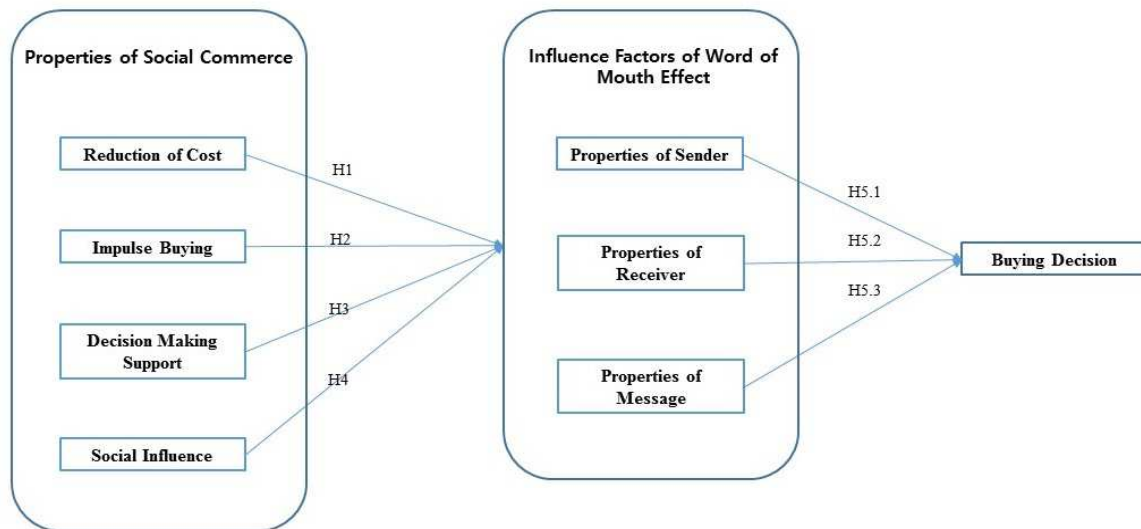


Figure 1. Research Model

To verify the hypothesis, an accurate definition of the concept must be made, and such definition of concept must be made by transforming the concept selected in research into form observable and measurable in comparison to the actual circumstances through operant definition. In this research, the influence on the dependent variables, of characteristic of social commerce, word-of-mouth effect as a mediation variable, and the consumer purchase decision as a dependent variable are measured. Each variable is justified based on the content examined in the theoretical background. The content to be measured of the variables used in this research through operant definition is as follows. In this research, three factors of characteristic of social commerce, word-of-mouth effect, and influence on the consumer purchase decision were introduced. The characteristic of social commerce utilized 4 measurement variables of reduction of costs, impulse purchase, social influence, and decision making support, the word-of-mouth effect had three measurement variables of characteristic of the sender, the characteristic of receiver, and characteristic of the message, and the influence on the consumer purchase decision utilized measurement variables by linking with the word-of-mouth effects.

4. Analysis & Findings

To verify the relationship between the characteristic of social commerce and the influenced factors, reduction of costs, impulsive purchase, decision-making support, and social influence were set as independent variables, characteristic of the sender, the characteristic of the receiver, and the characteristic of the message was set as independent variables in conducting the multiple regression analysis, and the result is as follows.

Model	Non-standardized coefficient		Standardized coefficient	t	Significance Probability	Collinearity Statistics	
	B	Standard Error	Beta			Allowances	VIF
(Constant)	-.002	.055		-.041	.967		
Reduction of Costs 1	.052	.082	.051	.627	.531	.457	2.187
Reduction of Costs 2	.057	.066	.053	.870	.386	.804	1.243
Impulsive Purchase 1	.168	.080	.166	2.109	.037	.487	2.052
Impulsive Purchase 2	.186	.065	.187	2.868	.005	.712	1.405
Decision Making Support	.344	.092	.331	3.732	.000	.384	2.605
Social Influence	.208	.070	.208	2.968	.003	.613	1.632
R Square : .523				The revised R Square : .505			
F : 28.832				Significance Probability : 0.000			

Table 1. The result of regression analysis between independent variable and word of mouth (characteristics of the sender and the receiver)

As the result of the multiple regression analysis, Impulsive Purchase 1, Impulsive Purchase 2, Decision Making Support and Social Influence seemed to have significant influences with the significance probability of 0.05 level. However, the dependent variables on cost reduction did not seem to have influence. In examination of the influence of the selected factors, the word-of-mouth effect was influenced by the order of decision making support, social influence, Impulsive Purchase 2, and Impulsive Purchase 1.

Beta coefficient represented the slope of each variable in the regression model, and Impulsive Purchase 1, Impulsive Purchase 2, decision-making support and social influence were verified as having positive(+) effect on word-of-mouth effect.

Model	Non-standardized coefficient		Standardized coefficient	t	Significance Probability	Collinearity Statistics	
	B	Standard Error	Beta			Allowance	B
(Constant)	.041	.068		.608	.544		
Reduction of Costs 1	.129	.101	.133	1.270	.206	.457	2.187

Reduction of Costs 2	.258	.081	.251	3.183	.002	.804	1.243
Impulsive Purchase 1	-.233	.098	-.241	-2.378	.019	.487	2.052
Impulsive Purchase 2	-.188	.080	-.197	-2.358	.020	.712	1.405
Decision Making Support	.283	.113	.285	2.496	.014	.384	2.605
Social Influence	.193	.086	.203	2.246	.026	.613	1.632
R Square : .212				Revised R Square : .182			
F : 7.085				P-Value : .000			

Table 2. Result of Regression Analysis Between Independent Variable and Word-of-Mouth Effect(Characteristic of Message)

As a result of the multiple regression analysis of word-of-mouth effect 2, the dependent variables of reduction of cost 2, Impulsive Purchase 1, Impulsive Purchase Decision, and Social Influence had significant influences in the significance probability 0.05. In examination of the influences of the selected factor, the word-of-mouth effect was influenced in the order of Decision-Making Support, Reduction of Costs 2, Impulsive Purchase 1, Social Influence, and Impulsive Purchase 2. The beta coefficient represented the slope of each variable in the regression model, and Reduction of Costs 2, Decision Making Support and Social Influence had positive (+) influence on the word-of-mouth effect, and Impulsive Purchase 1 and 2 had negative influences (-).

In this research, to verify the effect of each mediation variable, 3-step mediation regression analysis method was conducted. The following analysis was conducted to verify the mediating effect through regression analysis. First of all, regression analysis was conducted for the independent variable and the mediation variable, and their significance level were verified. Secondly, regression analysis was conducted for the independent variable and dependent variable, and lastly, multiple-regression analysis was conducted for the dependent variable against independent variable and mediation variable. Mediating regression analysis is significant as mediation variables when the following conditions are satisfied.

First, dependent variable must have a significant influence on mediation variable. Second, independent variables must have significant effect on dependent variables. Third, the effect of the independent variables of the second step must be larger than the independent variable effect of the regression formula of the second step. Also, if the independent variable is not significant in the third regression formula, it has the perfect mediation effect, and if the independent variable is smaller than the second regression formula and significant, it as a partially mediating effect. The results of analysis methods are as follows.

Model		Non-standardized Coefficient		Standardized Coefficient	t	Significance Probability	
		B	Standard Error	Beta			
1 st step	Independent	(Coefficient)	-.002	.055		-.041	.967
	→	Reduction of Costs 1	.052	.082	.051	.627	.531
		Reduction of Costs 2	.057	.066	.053	.870	.386

	Mediation (Word-of-mouth effect1)	Impulsive Purchase 1	.168	.080	.166	2.109	.037
		Impulsive Purchase 2	.186	.065	.187	2.868	.005
		Decision-making support	.344	.092	.331	3.732	.000
		Social Influence	.208	.070	.208	2.968	.003
2 nd Step	Independent → Dependent	(Coefficient)	3.356	.026		129.822	.000
		Reduction of Costs 1	.067	.038	.118	1.736	.085
		Reduction of Costs 2	.114	.031	.191	3.713	.000
		Impulsive Purchase 1	.001	.037	.001	.018	.985
		Impulsive Purchase 2	.022	.030	.039	.717	.474
		Decision-making support	.256	.043	.442	5.941	.000
		Social Influence	.162	.033	.293	4.967	.000
3 rd Step	Independent + Mediation (Word-of Mouth Effect1) → Dependent	(Coefficient)	3.357	.021		160.815	.000
		Reduction of Costs 1	.052	.031	.093	1.686	.094
		Reduction of Costs 2	.098	.025	.164	3.950	.000
		Impulsive Purchase 1	-.046	.030	-.081	-1.506	.134
		Impulsive Purchase 2	-.030	.025	-.054	-1.189	.236
		Decision-making support	.160	.036	.277	4.424	.000
		Social Influence	.105	.027	.189	3.864	.000
		Word-of-mouth Characteristic_Sender, receiver	.277	.030	.498	9.239	.000

Table 3. The result of mediation regression analysis between the word-of mouth effect (Sender, receiver characteristic) and purchase decision

When the mediation analysis of the word of mouth effect(sender characteristic, receiver characteristic) are conducted as mediation variables, variables influencing the purchase decision by being mediated by the word-of-mouth effect(sender characteristic, receiver characteristic) are the three variables of Reduction of Costs 2(daily Reduction of Costs), Decision Making Support and Social Influence. Though there are no changes to the level of significance, the value of standardized coefficient is changed when including the mediation variable compared to the values of independent variable and dependent variable, and the independent variable appeared to be significant in the second step and the third step. Therefore, the three variables do not show the perfect mediation effect, but partial mediation effect. Also, the standardization coefficient of the word-of-mouth effect (sender characteristic, receiver characteristic) appeared to be higher compared to independent variables, and the level of significance also seemed significant as .000.

Model		Non-Standardization Coefficient		Standardization Coefficient	t	Level of significance	
		B	Standard Error	Beta			
1 st Step	Independent → Mediation (word-of-mouth effect1)	(Coefficient)	-.002	.055		-.041	.967
		Reduction of Costs 1	.052	.082	.051	.627	.531
		Reduction of Costs 2	.057	.066	.053	.870	.386
		Impulsive Purchase 1	.168	.080	.166	2.109	.037
		Impulsive Purchase 2	.186	.065	.187	2.868	.005
		Decision-making support	.344	.092	.331	3.732	.000
		Social Influence	.208	.070	.208	2.968	.003
2 nd Step	Independent → Dependent	(Coefficient)	3.356	.026		129.822	.000
		Reduction of Costs 1	.067	.038	.118	1.736	.085
		Reduction of Costs 2	.114	.031	.191	3.713	.000
		Impulsive Purchase 1	.001	.037	.001	.018	.985
		Impulsive Purchase 2	.022	.030	.039	.717	.474
		Decision-making support	.256	.043	.442	5.941	.000
		Social Influence	.162	.033	.293	4.967	.000
3 rd Step	Independent + Mediation (Word-of-mouth effect1) → Dependent	(Coefficient)	3.357	.021		160.815	.000
		Reduction of Costs 1	.052	.031	.093	1.686	.094
		Reduction of Costs 2	.098	.025	.164	3.950	.000
		Impulsive Purchase 1	-.046	.030	-.081	-1.506	.134
		Impulsive Purchase 2	-.030	.025	-.054	-1.189	.236
		Decision-making support	.160	.036	.277	4.424	.000
		Social Influence	.105	.027	.189	3.864	.000
Word-of-mouth Characteristic_Sender, receiver	.277	.030	.498	9.239	.000		

Table 4. The result of mediation regression analysis between the word-of-mouth effect(characteristic of message) and purchase decision

When the mediation analysis of the word-of mouth effect(characteristic of the message) as a mediation variable is interpreted, the variables influencing the purchase decisions are the three variables of reduction of cost 2(daily reduction of costs), Decision-Making Support, and Social Influence. Though there are no changes in the significance level except for the Reduction of Cost 2(Daily reduction of cost), the value of standardized coefficient changed when including the mediation variables compared to the values of the independent variables and the dependent variables, and the independent variable was significant in the 2nd and the 3rd step. Therefore, the

three variables of the word-of-mouth effect 2(Characteristic of message) does not show perfect mediation effect, but partial mediation effect. Also, the standardization coefficient of the word-of-mouth effect(characteristic of the message) appeared to be lower compared to the word-of-mouth effect 1 (characteristic of sender and receiver), but appeared to be higher compared to other independent variables except for the decision-making support system, and the level of significance seemed to be significant as .000.

15 hypothesis were established according to the research model, but through factor analysis, the reduction of costs and impulsive purchase of independent variable were categorized as two factors that the revised hypothesis was analyzed, and the verification of the hypothesis of this research is as follows.

Hypothesis		Standardization Coefficient	Significance Level	Whether selected
H1.3.2	Reduction of costs (daily) will have positive (+) influence on the characteristic of the message.	.251	.002	Selected
H2.1.2	Impulsive purchase (cognitive) will have positive (+) influence on the characteristic of the sender.	.187	.005	Selected
H2.2.2	Impulsive purchase (cognitive) will have positive (+) influence on the characteristic of the receiver.	.187	.005	Selected
H3.1	Decision-making support will have positive (+) influence on the characteristic of the sender.	.331	.001	Selected
H3.2	Decision-making support will have positive (+) influence on the characteristic of the receiver.	.331	.001	Selected
H3.3	Decision-making support will have positive (+) influence on the characteristic of the message.	.285	.014	Selected
H4.1	Social influence will have positive (+) influence on the characteristic of the sender.	.208	.003	Selected
H4.2	Social influence will have positive (+) influence on the characteristic of the receiver.	.208	.003	Selected
H4.3	Social influence will have positive (+) influence on the characteristic of the message.	.203	.026	Selected
H5.1	The characteristic of social commerce and the characteristic of the sender will have positive (+) influence on the consumer purchase decision.	.489	.000	Selected
H5.2	The characteristic of social commerce and the characteristic of the receiver will have positive (+) influence on the consumer purchase decision.	.489	.000	Selected
H5.3	The characteristic of social commerce and the characteristic of message will have positive (+) influence on the consumer purchase decision.	.300	.000	Selected

Table 5. Verification of Hypothesis

Among the characteristics of social commerce, reduction of cost did not have significant influence on the word-of-mouth effect. Among the factors influencing the independent variables of daily (brand awareness, relationship with the sender, product information) reduction of costs and word-of-mouth, mediation variable, the characteristic of message only seemed to have significant influence. The factors influencing impulsive purchase and word-of-mouth effect as the hypothesis, only two factors of emotional (message channel, sharing of message, utilization of the SNS) Impulsive Purchase and the Characteristics of the Sender and the Receiver did not have significant influences, and Impulsive purchase affected the characteristic of the message negatively (-), rejecting the hypothesis that it had positive (+) influence. However, cognitive (brand awareness, relationship with the sender, information of the product) impulsive purchase was analyzed to influence the characteristic of the sender and receiver. Decision making support and social influence had significant influence on mediation variables. Therefore, hypothesis 3 and 4 were selected. Lastly, hypothesis to regulated the relationship between independent variable, mediation variable and dependent variable were all selected, and the characteristic of social commerce and the factors influencing the word of mouth effect were all analyzed to have positive (+) influence on the consumer purchase decision.

In the analysis result, the factors influencing the characteristic of social commerce and the word-of-mouth effect seemed to influence the purchase decisions of consumers. This may be interpreted as that in utilization of social commerce by the consumer, word-of-mouth effects may influence purchase decisions of products and service much greater than the characteristic of social commerce.

5. Results

This research identified the relationship between the characteristic of social commerce and the influence on the word-of-mouth effect, and considered the prior research on how the two variables influenced the purchase decisions. The research model and 15 research hypothesis were explained, and analysis of actual proof was conducted to identify them. First of all, the reduction of costs of social commerce, reduction of cost, impulsive purchase, decision-making support and social influence were analyzed, and the factors influencing the word-of-mouth effect were categorized into the three categories of sender characteristic, receiver characteristic and message characteristic, and research model was designed to identify how then influenced the consumer purchase decision. The basic data to establish the research model and hypothesis were conducted survey analysis. For data collection, survey was distributed online/offline for consumers with the experience of actually utilizing social commerce. After securing the data, the research model was evaluated through the verification of reliability and validity, and through mediation regression model, the relationship and significance between each variables suggested in the research model were verified.

In summing up the analysis result, the factors influencing the characteristic of social commerce and the word-of-mouth effect seemed to influence the purchase decisions of consumers. This may be interpreted as that in utilization of social commerce by the consumer, word-of-mouth effects may influence purchase decisions of products and service much greater than the characteristic of social commerce.

Recently, in social commerce, trade with the consumer is being made thorough mere discounts without any differentiation with other channel(malls). As the conclusion that the characteristic of social commerce and the word-of-mouth effect influences the purchase decisions of consumers, the social commerce corporations must explore methods to vitalize word-of-mouth communication, and the social commerce corporations must develop the importance word-of-mouth effects and the utilizable methods. Also, effort on the effective and efficient utilization of the characteristic of the sender, the characteristic of the receiver, and the characteristic of message influencing the word-of-mouth effect deducted from this research is needed.

6. Conclusion

The significance this research is that first, the word-of-mouth effect of social commerce and online have been researched. Though there are many prior efforts on existing research and the characteristic of social commerce, there was insufficient research on the relationship between social commerce and the word-of-mouth effect. From such perspective, this research may have significance in that it may suggest stepping stones for future research. Secondly, the conclusion that the characteristic of social commerce and the factors influencing the word-of-mouth influences the consumer purchase decisions has been deducted.

The characteristic of business in social commerce is changing, and losing differentiation with the channel of other e-commerce. From such perspective, clear solution cannot be suggested to social commerce, but it was identified that the factor of word-of-mouth influenced the purchase decisions of customers using social commerce. When the result identified through the research model is outlined, among the characteristics of social commerce, reduction of costs and impulsive purchase did not seem to have any significant relationship with the word-of-mouth effect. In case of reduction of costs, many factors of reduction of costs such as card discounts, affiliation discounts and coupon discounts are being provided. The consumers are recognizing reduction of costs as fundamental factors provided, not as promotion or marketing or corporations, and such reasons seem to explain the relationship between the reduction of costs and word-of-mouth. Impulsive purchase does not seem to have significant relationship with the word-of-mouth effect. The consumers are able to share and acquire information through various channels and various routes in real-time. Therefore, as consumers are aware of much information though they are cheap and low-engagement products, it is verified that there is no influence on the word-of-mouth effect. Among the characteristics of social commerce, it was analyzed that the decision-making support and social influence had influence on the word-of-mouth effect, factors influencing decision making, social influence and word-of-mouth need to be discovered to promote consumer purchase. Lastly, it was analyzed that the characteristic of the sender, receiver, and the characteristic of message influencing the word-of-mouth effect utilized as mediation variable in this research influenced the consumer purchase decision. Therefore, the corporations may need to heighten the value of the brand owned by the corporation, and conduct advertisement and marketing activities for the consumers to know the information of many products. The characteristic of the message is an important variable, and viral marketing of various SNS, café and blog is important as well.

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Corporate governance and capital structure of Malaysian family-owned companies

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Capital structure, corporate governance, family-owned companies, debt financing, and leverage

Abstract

The purpose of paper is to examine the corporate governance attributes that will influence the capital structure of the Malaysian family-owned company. More specifically, this study divides into two objectives which are to examine the relationship between corporate governance and capital structure of the Malaysian family-owned company and to examine whether corporate governance has a significant impact on the capital structure of the Malaysian family-owned company. This study will establish whether capital structure is determined by the various corporate governance attributes, namely board of director size, board of director composition, board of director financial expertise, Chief Executive Officer (CEO) duality role, and Chief Executive Officer (CEO) tenure. This paper employed the family-owned company listed in main market of Bursa Malaysia and yet, the selection of listed family-owned companies based on the prior literature. The sample of 195 companies has met the characteristic of family-owned companies and the study covers three years observations which are 2009, 2010, and 2011 collected from annual report as data for non financial attributes. The general findings show that there is a significant negative relationship between board composition and debt ratio, long-term debt ratio and short-term debt ratio which indicates that high proportion of board composition is associated with lower debt ratio and long-term debt ratio which is there is low dependent on debt financing and CEO tenure and capital structure also has significant relationship, but only with long-term debt ratio. This suggests the longer tenure will lower the dependent on the debt financing.

1.0 Introduction

Capital structure is a combination of both equity financing and debt financing. Equity financing refers to share capital and reserve while debt financing refers to the borrowings of the firm. The preference to the type of financing is different between firms, some firms may prefer equity financing, and the others may prefer debt financing. Many theories on capital structure have been developed by the prior scholar; one of the theories is pecking order theory, where a firm prefers internal financing to finance the activities (Frank & Goyal, 2003). Internal financing here refers to the reserve of the firm, accumulated profit generated from activities.

Due to different preference of financing between firms, this study tries to examine whether corporate governance will have an impact on the financing decision of the firm. Corporate governance is defined as the system in which the firm is being directed and controlled (Cadbury, 1992). Agency theory is developed to explain the relationship between the shareholders and managers. The objective of the agent should be in line with the objective of principals. Hence, in choosing the financing decision of the firm, the agent or management should choose the capital structure that will maximize the value of the shareholder's wealth (Jensen & Meckling, 1976). However, unaligned objective between agents and principals create agency problem.

Corporate governance is a guideline on how to manage and control the firm. Weak corporate governance will lead to poor financial decision of the firm and hence lead to poor financial performance (Abor, 2007). Thus, it is important to study the linkage between corporate governance

and the financial decision of the firm in order to maintain corporate sustainability of the family-owned company in Malaysia. The corporate governance attributes that mostly used by prior study are board size (Abor, 2007; Bokpin & Arko, 2009; Ahmadpour, Samimi, & Golmohammadi, 2012; Gill, Biger, Mand, & Shah, 2012; Sheikh & Wang, 2012), board composition (Abor, 2007; Heng, Azrbaijan I, & San, 2012; Sheikh & Wang, 2012) and CEO duality role (Abor, 2007; Bokpin & Arko, 2009; Vaklifard, Gerayli, Yanesari, & Ma'atoofi, 2012; Gill et al., 2012), managerial shareholdings (Bokpin & Arko, 2009; Sheikh & Wang, 2012), ownership concentration Ahmadpour et al., 2012; Sheikh & Wang, 2012), institutional investor (Hussainey & Aljifri, 2012), dividend policy (Hussainey & Aljifri, 2012), internal auditor (Ahmadpour et al., 2012) and CEO tenure (Abor, 2007) as corporate governance attributes in their study.

All of the corporate governance attributes mentioned have been used by prior study to test their impact on the capital structure of the company, all of the corporate governance attributes are significant related to the capital structure of the companies. Thus, all of above corporate governance attributes are important in the determination of capital structure of the company. Different companies will adopt different financing strategy to finance their project and investment (Vaklifard et al., 2011). Theory of capital structure suggests that a company's capital structure is influenced by several factors; one of it is the corporate governance itself (Vaklifard et al., 2011).

However, until to date, especially in Malaysia, there has been little concentration given on the relationship between corporate governance attributes and capital structure of the companies. Thus, this study will look in depth on the association between corporate governance attributes and capital structure and the study focus on the family-owned companies.

Many studies on the association between corporate governance and capital structure have been done. Most of them use companies listed on the stock exchange as their samples of study. In Malaysia, Heng et al., (2012) examine the relationship between the board of director and capital structure based on the non-financial leading companies listed on Kuala Lumpur Stock Exchange, or known as Bursa Malaysia.

This study also uses sample companies listed in the main market of Bursa Malaysia, but the companies must fulfill the criteria of family-owned company. This is because; no prior studies examine the relationship between corporate governance and capital structure of Malaysian family-owned company. Thus, this study attempts to get the evidence on the relationship between corporate governance and capital structure in the family-owned companies in Malaysia.

The findings of this study will provide additional contribution to the existing body of knowledge relate to the evidence on the capital structure in Malaysia. This also may help the family-owned companies in Malaysia in determining the corporate governance setting in the company that will effectively monitoring the financing decision of the management, particularly in the aspect of the board of director.

2.0 Literature Review

The review of the literature is relating to corporate governance which forms the basis of the study. Corporate governance came into existence since people started doing business. The Cadbury Committee has defined the corporate governance as the system by which companies are being directed and controlled (Cadbury, 1992). Whilst in Malaysia, the High Level Finance Committee Report in 1999 has defined the corporate governance as the process and structure used to direct and manage the business and affairs of the company towards enhancing business prosperity and corporate accountability with the ultimate objective of realizing long term shareholder value, whilst taking into account the interest of other stakeholders (Corporate Governance, 2011). From this definition, corporate governance sets out guidelines to manage business, and this is for board of directors and management of company in discharging their fiduciary duty and responsibility in maximizing the shareholder value, and taking into account the interest of the other stakeholders.

Thus, agency theory comes into picture in this process, agency theory is defined as the relationship between two parties, the agent and the principal, the agent are delegated with some authority to make decision on behalf of principals (Jensen & Meckling, 1976). The shareholders delegate decision making to the management on behalf of the shareholders, the decision should maximize the shareholder value. This relationship exists because of separation of ownership and control in the company, the separation of the residual claimants and the decision maker in the company (Fama & Jensen, 1983). However, if both principals and agents have different objectives, the agents will not always act in the best interest of the principals (Jensen & Meckling, 1976). Hence, information adversely will affect the ability of the principals to effectively monitor the agent's behavior. Self-seeking managers will maximize their own interest at the expense of the shareholder, and this is called a moral hazard. Another agency problem is adverse selection that occurs when the principals do not have access to the information at the time agents make the decision on behalf of the principals (Adams, 1994).

To solve it, various studies have been done; one of it is by enhancing the function of corporate governance in monitoring the managements. The board should effectively monitor the CEO in order to improve their performance and avoid the conflicts of interest as well (Bonazzi & Islam, 2007). Also, improving the board independence helps to resolve the effective monitoring function of the board towards the management of company. Audit committees can also one that can mitigate the agency problem by monitoring the managements of the firms. Jensen (1986) has discussed the role of debt mitigating the self-motivating manager. Free cash flow can lead to the manager to invest in low-return investment or the manager will tend to waste the money, creation of the debt without retention of the proceeds of the issues will bond the managers with the promise to pay interest to the debt holders, this is contra with the promise dividend to the shareholder, because dividend can be reduced in future whereas interest are fixed over time (Jensen, 1986).

Capital structure is defined as the optimal mixture of the firm's different sources of financing (Vakilifard et al., 2011). The famous and earliest theory developed in the capital structure is MM theory developed by Modigliani and Miller (1958). MM proposition I and II in the situation without effect of corporate tax and the transaction cost, the value of firm is not affected by leverage in proposition I, however in proposition II, the leverage will increase the risk and return to the shareholder. While the MM proposition I and II in the situation with effect of corporate tax rate, the value of the firm will increase with the effect of leverage in proposition I, and proposition II shows that the increase in equity risk and return will offset by the interest tax shield (Modigliani & Miller, 1958). The role of debt will increase the value of firm. In the perspective of agency theory by Jensen & Meckling (1976) pointed out that using debt financing will help to control the agency cost of equity in two ways. Firstly, using debt will reduce the sale to outside equity, and this will reduce the agency cost of equity. Secondly, debt will reduce the excessive perquisite consumption by the manager; this means regular debt payment will discipline managers. Myers and Majluf (1984) discussed pecking order hypothesis, which the firm will prefer internal source of fund to finance the investment, and prefer debt financing if external financing is required. The conflict of large free cash flow to the firm is explained in the free cash flow theory (Jensen, 1986). Jensen, (1986) explained that free cash flow in the firm could result that manager will use the cash for self benefit rather than the shareholders benefit. The debt will motivate the manager, thus make the manager to pay commitment to debt holders instead of making unprofitable investment. The interest payment can be substitute to dividend which is as a promise of management to pay to shareholders and depend on the management discretion, whilst interest is a compulsory payment to the debt holder.

Various measurements as proxy for the capital structure has been used by previous studies; debt ratio, which is measured as liabilities over total assets (Vakilifars et al., 2011; Oktovianti & Agustia, 2012) and long-term debt over total assets (Ahmadpour et al., 2012). Besides that, capital structure also measured by debt-to-equity ratio and calculated as total debt over total equity

(Hussainey & Aljifri, 2012). Alternative calculation of debt-to-equity is total debt over total debt plus equity (Abor, 2007). This study uses three measurements or proxy for capital structure this is consistent with prior studies. The study uses debt ratio as proxy of capital structure, debt ratio is measure as proportion of total debt over the total assets of the firm. The study also takes the effect of the long-term debt of the firm into consideration, consistent with prior studies, this study uses long-term debt ratio which is measured by the proportion of the long-term debt over total assets of the firm. In addition, the study also takes the effect of the short-term debt of the firm into consideration; therefore the study also includes the short-term debt ratio as a proxy for capital structure. Consistent with prior studies, the short-term debt ratio is by proportion of the short-term debt over the firm total assets.

Many studies show the impact of the corporate governance towards the choice if the capital structure of the firms. Prior studies on the relationship between corporate governance and capital structure found the board size (Abor, 2007; Bokpin & Arko, 2009; Ahmadpour et al., 2012; Gill et al., 2012; Sheikh & Wang, 2012), Board composition (Abor, 2007; Heng et al., 2011; Sheikh & Wang, 2012) and CEO duality (Abor, 2007; Vakilifard et al., 2011; Gill et al., 2012) have statistically significant positive relationship with the capital structure of the firm, this suggest that larger board size, have more independent non-executive director and CEO who is also a chairman will have higher capital structure. However, Vakilifard et al., (2011) and Heng et al., (2012) found a negative relationship between board size and capital structure of the firm, this suggests that firm with larger board size will have lower capital structure.

There no generally accepted definition that defines the family-owned company or family controlled firm. Prior studies have provided some characteristics in identifying the family-owned company which are presence of the family members on the board of director, and founder (Anderson, Mansi & Reeb, 2003; Tsao, Chen, Lin, & Hyde, 2009; Hashim, 2011). However, this study adopts the characteristics used by Amran and Che Ahmad (2011) to determine the characteristics of the family-owned company with additional one characteristics from study by Bartholomeusz and Tanewski (2006). In (Amran and Che Ahmad, 2011), the characteristics are the founder is the CEO or successor of the CEO who is related by blood and marriage, with at least two family members in management and family directors have ownership (direct and indirect shareholding) of a minimum of 20% in the company.

From an agency theory point of view, ownership structure is one of the effective corporate governance mechanisms to mitigate the agency problem with suggest that concentrated ownership is effective monitoring function (Jensen & Meckling, 1976). In addition, the owner of family members still holds a significant amount of shares, important position and discharging their monitoring function. However, on the other hand, concentrated ownership and combining the ownership and control in family owned company also might increase the agency cost (Bartholomeusz an Tanewski, 2006). This is because, concentrated ownership and combining the ownership and control to one person or group will give chances to the expropriate the wealth of other shareholders through related party transaction, excessive compensation and special dividend (Anderson & Reeb, 2003).

Basically, the theoretical framework of this study underlying the effect of corporate governance attributes and capital structure of the family owned companies. The corporate governance attributes in the study measured by board size, board composition, and board financial expertise, other than that, the corporate governance attributes also measured by Chief Executive Officer (CEO) duality role, and Chief Executive Officer (CEO) tenure.

3.0 Research Design and Methodology

3.1 Data Collection

The sample for this study restricted to the companies listed on the Bursa Malaysia Stock Exchange. The sample selected comprise of Malaysian family-owned companies listed on Bursa Malaysia main market which the selection of the family owned company follows the definition used

prior literature. A total of 195 companies have met the characteristics of family owned company, year 2009 is used as a base year in determining the family-owned company. The study used three years observation of annual reports over the period of 2009, 2010 and 2011. The total companies listed in Bursa Malaysia main market exclude the banking, finance and insurance sector since this sectors need to comply with some specific regulation. Furthermore, also excluded is the company's annual reports that are not available for these consecutive three years.

3.2 Hypothesis Development

The study aims to examine the relationship between corporate governance attributes and how the attributes of the corporate governance will affect capital structure of the family-owned companies. The attributes of corporate governance such as board of director size, board of director composition, board of directors' size, Chief Executive Officer (CEO) duality role, and Chief Executive Officer (CEO) tenure are believed to affect the capital structure of the family-owned companies. Five hypotheses were developed to be tested and to support the research objectives are:

Abor (2007) argues that a larger board is able to monitor the management in order to adopt high debt policy in order to increase the value of company. Thus, it is believed that large board is able to monitor the management in order to adopt high debt policy in order to increase the value of the company. This is consistent with study by Bokpin and Arko (2009), Mohd Saad (2010) and Gill et al., (2012). However, Vaklifard et al. (2011) found opposite direction of the board size and capital structure of company, which is negative relationship between board size and the leverage of company. This suggests that companies with large board will prefer lower debt as they perceived debt is the risk associated with the company. Hussainey and Aljifri (2012) found there is no significant relationship between board size and debt-to-equity ratio.

Hypothesis 1:

There is a significant relationship between board size and capital structure of family-owned company.

Abor (2007) found that positive relationship between boards' composition and debt ratio of the companies. This result suggests that the board of director with a high proportion of the independent directors will tend to pursue with high debt policy which is high debt policy is believed to increase the value of company due to debt tax shield. Furthermore, debt is also an effective tool to discipline the manager to pay the commitment of debt. On the other hand, Bokpin and Arko (2009) found there is no significant relationship between board independence and capital structure of the firm. This also supported by Vikilifard et al. (2011). Thus, independent directors do not play an effective role in monitoring the capital structure of company.

Hypothesis 2:

There is a significant relationship between board composition and capital structure of family-owned company.

Financial expertise may be one of the important things when it comes to decision making regarding accounting matters. The Malaysian Code on Corporate Governance recommends that members of the audit committee should be financially literate with minimum one (1) of the member hold membership with an accounting association of bodies (MCCG, 2007). Kim and Lim (2010) found those independent outside director who are accountant have negative relationship with the firm valuation. This means that value of firm and proportions of independent outside director have inverse relationship. However, Guner, Malmendier, and Tate (2007) reveal that financial expert significantly affect the finance and investment policies of the company that they serve as directors. This is explaining that the financial expertise of the directors does influence financing policies of the company. A director with financial expertise will prefer lower leverage; this is due to their understanding of leverage as a potential risk for the firm.

Hypothesis 3:

There is a significant relationship between board financial expertise and capital structure of family-owned company.

Abor (2007) found a positive relationship between capital structure of the firm and CEO duality role. This finding suggests that CEO who is also the chairman of the board will tend to adopt high debt policy. The result found by Vakilifard et al. (2011) and Gill et al. (2012) also consistent with Abor (2007). On the other side, there is a negative significant relationship between dual leadership and capital structure of the firm. The result suggests that the company with CEO is also the chairman of the company will have lower debt. This is due to the risk associated with the debt and hence, showing the effective decision of the CEO who is also the chairman of the board do not tolerate with the risk. But, Bokpin and Arko (2009) found insignificant relationship between CEO duality role and financial leverage.

Hypothesis 4:

There is a significant relationship between CEO duality role and capital structure of family-owned company.

There is negative relationship between the CEO tenure and capital structure, however the relationship is significant (Abor, 2007). The result suggests that an entrenched CEO will adopt lower debt policy in order to reduce the performance pressure related to the high debt. Company with high debt has to perform well in order to meet the commitment of debt. CEO plays an important role in deciding the capital structure because CEO has well understanding of the position of the company.

Hypothesis 5:

There is a significant relationship between CEO tenure and capital structure of the family-owned company.

3.3 Measurement of variable**3.3.1 Measurement of dependent variable**

This study will employ three ratios as a proxy for the capital structure. First proxy to measure capital structure is debt ratio which is consistent with prior research. The debt ratio is calculated as total debt over total assets of the company (Boateng, 2004; Abu-Tapanjeh, 2006; Amjed, 2007; Bokpin & Arko, 2009; Azhagaiah & Gavoury, 2011; Haque et al., 2011; Stigbauer, 2011; Heng et al., 2012; Kuo et. Al, 2012; Sheikh & Wang, 2012). The study also takes consideration on the long-term debt of the company, thus second proxy for capital structure in this study is long-term debt ratio and it is calculated as long-term debt over total assets of the company (Amjed, 2007; Kuo et. Al, 2012; Sheikh & Wang, 2012). The study also takes into consideration the short-term debt of the company. Thus, the third proxy of capital structure is short-term debt ratio. It is calculated as short-term debt of the company over its total assets (Amjed, 2007; Kuo et. Al, 2012).

3.3.2 Measurement of independent variable**Board size (BSIZE)**

The first proxy of the corporate governance is board of directors' size. Measurement of size of the board is measured by total number of director serves on the board of the company. This measurement is consistent with Abor (2007), Bokpin and Arko (2009). This study aims to examine the influence of board size towards capital structure of the family owned company.

Board Composition (COMP)

Abor (2007), Heng et al. (2012) and Sheikh and Wang (2012), board of director composition is measured based on the proportion of independent non-executive director divided by total number of directors on the board.

Board Financial Expertise (EXPERT)

Board financial expertise is measured by proportion of director with accounting and financial expertise over total number of directors. This is consistent with the measurement used by Kim and Lim (2010) and Amran and Che Ahmad (2011).

CEO duality (DUALITY)

CEO duality is measured using dummy variable where CEO who also serve as chairman is coded "1" and "0" otherwise. This is consistent with Vaklifard et al. (2011) and Gill et al (2012).

CEO tenure (TEN)

The last proxy of corporate governance in the study is the Chief Executive Director (CEO) tenure. It is measured by number of years the CEO in position (Abor, 2007).

3.3.3 Measurement of control variable

Many prior studies used firm size and return on assets (ROA) as control variables. Both firm characteristics are controlled in this study as these two variables may influence the capital structure of the firm (Abor, 2007; Haque et al., 2011; Vaklifard et al., 2011; Kuo et al., 2012; Sheikh & Wang, 2012). There is a significant positive relationship between firm size and capital structure of the firm and also, there is significant negative relationship between return on assets (ROA) and capital structure. This could be explained by the fact that a large company are highly leverage as compared to the small company due to the company gain confidence from the lender to provide fund to the firm. Yet, return on assets (ROA) as a measurement of profitability of the company shows a negative relationship with capital structure because profitable company have large internal fund to finance their investment and project, hence debt financing is not required.

3.4 Regression Model

The model is developed to test relationship between capital structure and corporate governance. The estimate multiple linear regression models are as follows:

$$CS_i = \beta_0 + \beta_1 BSIZE_i + \beta_2 COMP_i + \beta_3 EXPRT_i + \beta_4 DUAL_i + \beta_5 TEN_i + \beta_6 FSIZE_i + \beta_7 ROA_i + \varepsilon_i$$

Where,

CS= capital structure

Proxies:

DR = debt ratio

LTDR = Long-term debt ratio

STDR = Short-term debt ratio

BSIZE = Board size

COMP = Board composition

EXPRT= Board financial expertise

DUAL = CEO duality role

TEN = CEO tenure

FSIZE = Firm size

4.0 Findings

Table 1 shows the descriptive statistic of the variables for overall minimum and maximum value for dependent (capital structure), independent (corporate governance) and control variable. These 585 observations are due to pooled of data for 195 family owned companies covering three years study, from 2009 till 2011. First proxy for capital structure is debt ratio (DR). The mean value for debt ratio is 21.552%, while the minimum and maximum values for debt ratio are 0% and 139.173% respectively. It shows that some firms do not take up debt ratio during observation period. Second and third proxies for capital structure are long-term debt ratio (LTDR) and short term debt ratio (STDR). Both show that minimum value for overall observation is zero. It means that the companies are not used both during the observation. The maximum values for both are 58.850% and 138.841% respectively. On the overall corporate governance attributes shows that board size (BSIZE) is the minimum number of board sit is 4 people, maximum people is 17 and the mean of directors

seat in the board is 7.69 people. Second proxy is board composition which shows that the minimum of independent directors seat in the board is 20% and maximum is 40%. Thus, the average independent director seat is 41.684%. Next is the minimum values is for board financial expertise (EXPRT) is zero which is some firms do not have directors with financial expertise in the board and the maximum is 80% which shows the highest percentage of board of director with financial expertise is 80%. The CEO tenure is 1 year as the minimum and maximum value for CEO tenure is 39 years. The average number of years that CEO holds the position for overall observation is 11.3 years.

Table 1: Descriptive Statistic

	N	Minimum	Maximum	Mean	Standard Deviation
DR	585	0	139.173	21.552	17.264
LTDR	585	0	58.850	7.603	9.170
STDR	585	0	138.841	13.949	14.165
BSIZE	585	4	17	7.690	1.912
COMP	585	20	80	41.684	10.241
EXPRT	585	0	80	26.837	13.251
TEN	585	1	39	11.300	8.793
FSIZE (RM'000)	585	24,596	48,266185	992,389.130	4215362.488
ROA	585	-63.043	38.635	6.835	8.358

The overall correlation among the variables were relatively low or medium and below 0.5. As observed in table 4.3, three proxy of capital structure shows significant related each other, strong positive relation between debt ratio and long-term debt ratio and short-term debt ratio and there is linear relation between them. Table 2 shows a positive linear between debt ratio (DR) and board size (BSIZE) at 1% significant level. Also, there is a significant positive linear correlation between board size (BSIZE) and long-term debt ratio (LTDR) at 1% significant level. Furthermore, Table 2 also shows a significant negative linear relationship between debt ratio (DR) and board financial expertise (EXPRT) and also significant negative relationship between long-term debt (LTDR) and financial expertise (EXPRT) at 1% significant level. Further test in control variables, it shows that all proxy of capital structure is significant in relation to the firm size (FSIZE) and return on assets (ROA) as proxy of control variables. Also, debt ratio (DR) and long-term debt ratio (LTDR) have significant positive correlation with firm size (FSIZE) at 1% and short-term debt ratio (STDR) at 5% which is larger companies tends to use both debt ratio and long-term debt ratio. Furthermore, there is significant negative relationship between BSIZE with COMP, EXPRT and DUAL.

Correlation Analysis

Table 2: Pearson correlation matrix for explanatory variables

	DR	LTDR	STDR	BSIZE	COMP	EXPRT	DUAL	TEN	FSIZE	ROA
DR	1									
LTDR	.653**	1								
STDR	.818**	.098*	1							
BSIZE	.128**	.159**	0.046	1						
COMP	-0.053	-0.058	-0.025	-.354**	1					
EXPRT	-	-	-0.048	-.226**	0.064	1				
DUAL	1.27**	.156**					1			
TEN	-0.049	-0.072	-0.01	-.184**	0.075	.177**		1		
FSIZE	0.011	-0.034	0.04	0.077	-0.016	0.001	.116**		1	
ROA										1

FSIZE	.328**	.445**	0.093*	.356**	-0.009	-.136**	0	.098*	1
ROA	-	-	-	.117**	-1.111**	.101*	0.034	-0.06	.094*
	.298**	.138**	2.87**						

**Correlation is significant at 0.05 levels (2 – tailed)

*Correlation is significant at 0.01 levels (2- tailed)

The study aims to explore the relationship between the corporate governance and the capital structure of the family-owned company. The Ordinary Least Square (OLS) regression is conducted as the correlation coefficient alone insufficient to test the existence of the relationship. Before testing, the normality test should be done and all of the variables have skewness less than 2 and this indicates that all variables are normally distributed. Multivariate analysis is performed to examine the interaction between independent variables and dependent variables. Multiple regressions are used to analyze the relationship between several independent variables and dependent variable. Table 3 shows the relationship between firm capital structures and several corporate governance characteristic after controlling the firm size and profitability. Even though the R² is low, the model is still fit for analysis because significant relation may still exist between the dependent variables and independent variables (Colton & Bower, 2002). Therefore, from overall findings, it only implies that 22.9%, 25.1%, and 10% of variation in DR, LTDR, STDR respectively is explained by variation in the independent variables.

Table 3 shows that the coefficient for board composition is significantly negative related at 5% level with debt ratio. This indicates that proportion of the independent director negatively related to the debt ratio of the family owned company which is the family-owned company with large proportion of the independent director would prefer low debt ratio. Independent director prefer internal financing to finance the project of family owned company and it is consistent with Wen, Rwegasira, and Bilderbeek (2002). But, this result inconsistent with Abor (2007), Heng et al. (2012), and Sheikh and Wang (2012). Table 3 also indicates that the composition significantly negative related at 5% level with long-term debt ratio. Basically, the nature of family-owned company is different from other firm, and debt represents risk to the firm.

Table 3 also further indicates the coefficient for CEO tenure is significantly negative (at 5% level) with long-term debt ratio. It does give impact to the capital structure since CEO and management team of the family-owned company is responsible to the day-to-day operation of the firm. This result is consistent with study by Berger, Ofek, and Yermack (1997), Wen et al. (2002) and Abor (2007). This result suggests that the longer the CEO serves on the family-owned company, the CEO will avoid debt financing, especially the long-term debt financing. This is because CEO does not want to commit with long-term financing commitment

Table 3: Regression Analysis

VARIABLES	DR		LTDR		STDR	
	coefficient	p-value	coefficient	p-value	coefficient	p-value
(Constant)	-25.066	0.000**	-28.514	0.000**	3.448	0.543
BSIZE	0.015	0.967	-0.156	0.450	0.171	0.566
COMP	-0.130	0.036*	-0.072	0.042*	-0.058	0.250
EXPRT	-0.041	0.375	-0.047	0.075	0.006	0.876
DUAL	-0.794	0.599	-0.994	0.248	0.200	0.872
TEN	-0.079	0.243	-0.089	0.021*	0.010	0.854
Ln_FSIZE	4.619	0.000**	3.518	0.000**	1.101	0.010**
ROA	-0.653	0.000**	-0.204	0.000**	-0.448	0.000**
R ²	0.229		0.251		0.101	
Adjusted R ²	0.219		0.242		0.090	

F-Statistic	24.263	27.484	9.202
N	580	580	580

***Correlation is significant at 0.01 levels (2 – tailed)*

**Correlation is significant at 0.05 levels (2- tailed)*

Control variables in the model are also consistent with prior literature which is firm size shows significant positive relationship at 1% level across all three dependent variables. Also, the other control variable, profitability of the family owned company which is measured by return on assets (ROA) shows significant negative coefficient at 1 % level with all three dependent variables. This is consistent with prior literature by Abor (2007), Haque et al. (2011), Kuo et al. (2012), and Sheikh and Wang (2012). This shows that profitable family-owned company prefer lower capital structure as compared to non-profitable family-owned company, this is because profitable family-owned company have higher level of internal financing. This is consistent with the pecking order theory.

Basically, this study aims to examine the relationship between the capital structure (as measured by debt ratio, long-term debt ratio and short-term debt ratio) and corporate governance attributes (as measured by board size, board composition, board financial expertise, CEO duality role, and CEO tenure) of the Malaysian family-owned companies. For the purpose of study, a sample of 195 family owned companies listed on main board of Bursa Malaysia from 2009 to 2011 is selected.

The first objective of the study is to examine the relationship between corporate governance and the capital structure of the Malaysian family-owned company. The findings from the univariate analysis indicate that high proportion of board composition is associated with lower debt ratio and long-term debt ratio which is there is low dependent on debt financing. Also, the results also reveal that CEO tenure is significantly and negatively associated with the long-term debt ratio and this suggest the longer tenure will lower the dependent on the debt financing.

For the second objective is to examine whether corporate governance has significant impact towards the capital structure of the Malaysian family-owned company. The regression results reveal that board composition has negative impact on the debt ratio and long-term debt ratio of the firm. Furthermore, CEO tenure has negative impact on the long-term debt ratio of the firm. Hence, it suggests that board composition and CEO tenure have significant impact on the capital structure of the firm.

The first hypothesis to be tested is there is significant relationship between board size and capital structure of family-owned company. The H1 is rejected since all coefficients do not show significant relationship. Hypothesis 2 states there is significant relationship between board composition and capital structure of family-owned company. The result shows that significant negative relationship between board composition and debt ratio, long-term debt ratio and short-term debt ratio. Hypothesis 3 states there is a significant relationship between board financial expertise and capital structure of family-owned company. But, the result shows there is no significant relationship even there is a negative coefficient with debt ratio and long-term debt ratio. Thus, H3 is rejected. Next, hypothesis 4 states there is significant relationship between CEO duality role and capital structure of family-owned company. But, the result shows there is no significant relationship. Thus, H4 is rejected. Hypothesis 5 states there is significant relationship between CEO tenure and capital structure of the family-owned company and the result shows significant negative relationship with long-term debt ratio. But, there is insignificant relationship between CEO tenure with debt ratio and short-term debt ratio.

5.0 Conclusion

Capital structure is the combination of the sourcing financing between equity financing and debt financing. Different companies adopt a different capital structure, dependent on several situations and condition of the company. Corporate governance is the way company is being directed and managed. Thus, the way companies are managed will impact the capital structure.

The hypothesis shows there is significant negative relationship between board composition and debt ratio, long-term debt ratio and short-term debt ratio which indicates that high proportion of board composition is associated with lower debt ratio and long-term debt ratio which is low dependent on debt financing and CEO tenure and capital structure also has significant relationship but only with long-term debt ratio. This suggests the longer tenure will lower the dependent on the debt financing.

There are some limitations and if it can be overcome, it may give different findings. The family-owned companies have different characteristics from other companies, thus expanding the samples to other companies also may provide a more generalized finding. Second, since the study only took three consecutive years, thus the number of observations is expanded, it will provide robust findings. The analysis of the study also reveals that the R^2 of the study is low. The low R^2 may be due to error in the measurement of the variables, wide variation in the variable data or error in sampling techniques used by the researcher.

For future research, other variables may be added or other sampling techniques may be used to explain the relationship between corporate governance and capital structure of the company. More variables of analysis may increase the R^2 of the result. Furthermore, future research can consider whether different industries could affect the relationship between corporate governance and capital structure. Also, the future research can extend to other types of samples like small-medium sized enterprises.

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The FDI-political risk nexus: some new insights

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Foreign Direct Investment, Political Risk, Economic Development, Regime Types

Abstract

Most of the existing literature in the FDI-political risk nexus has focused on the creation of economic models to assess foreign investment decisions in the presence of political risk. This is entirely legitimate and valuable as foreign investors are interested in assessing the political risk climate of their investment location. However, not much research has been done to assess how FDI could affect political risk. Globalization implies an increasing amount of cross-border investment and trade flows. For some countries, FDI is a huge component of their GDP. Since FDI is a composite bundle of capital stock, knowledge and technology (Balasubramanyam et al, 1996) and represents "International investment made with the objective of obtaining a lasting interest, by a resident entity in one economy in an enterprise resident in another economy" (OECD, 2000), we postulate that because of this stakeholder commitment, FDI could affect a country's political risk level.

The management literature has it that political risk measures the stability of individual countries based on factors grounded in government, society, security, and the economy (Bremmer, 2005). We expand on this notion to investigate whether, and if so, how FDI affects political risk? We believe that the contribution of our study is specifically in examining this reverse relationship running from FDI to political risk. In this preliminary paper we test this hypothesis for a sample of thirty countries in various stages of economic development and regime types over the 1984-2012 period. Preliminary results indicate that countries with increased FDI inflows demonstrate decreased levels of political risk. Although there are variations across countries, country groups that are considered developed and full democracies tend to exhibit the lowest levels of political risk. Our ongoing research is examining a sample of 140 countries using both time series and panel data techniques.

1. Introduction

Foreign investment and political stability have long been interconnected in a way that affects economic development in a vast majority of countries. Foreign direct investment (FDI) has been of particular interest among academics and economists since World War II, and has gained importance in the last few decades due to the proliferation of global businesses. Most studies, ranging from Kobrin (1979) and Lewandowski (1997) to Ekpenyong and Umoren's (2010), Baek and Qian (2011), Solomon and Ruiz (2012) and Ritab and Abdul (2013), that have looked at the FDI-political risk nexus have examined the problem from an investment perspective, that is, how political risk (broadly defined as the impact of politics on the market) affects FDI. Investors and economists mainly use these studies as ways to make informed foreign investment decisions based on the host-country's current or forecasted political standing.

However, the FDI arena is not only growing, but also changing drastically. The year 2012 marks the first time developing countries exceeded developed countries' FDI inflows, by \$130 billion (Zhan, 2013, p. 2). Moreover, countries are being put into new classifications such as "emerging markets" and political risk characteristics are an important factor in this determination. Bremmer (2005) notes that emerging markets are generally in the moderate to high political stability range, have high levels of openness and cross-border investment and trade flows. These economies are

experiencing not only a dramatic increase in FDI inflows but also a major transformation in their political structures and regimes. The FDI-political risk issue seems almost like the chicken-and-egg problem: Is it political stability leading to higher FDI or is it FDI helping to reduce political risk, or both? The growth in FDI, the change in political risk levels among nations, and the lack of studies on the impact of FDI on political risk demands that we take a more in-depth look at what kind of impacts FDI has on the country it flows into and the institutional effects it creates.

The purpose of this study is to specifically examine whether, and if so, how FDI impacts political risk. Few recent studies have begun to explore this relationship such as Addison and Murshed (2003), Schroeder (2008), Dutta and Roy (2009), Zaharia et al. (2011), Lautier and Moreaub (2011), Al Azzawi (2012) and Feng (2014). However, most of them only examine FDI's effect on specific components of political risk. Democratic accountability and conflict are two components that are mostly tested in the literature. In contrast, this study investigates FDI's effects on the overall level of political risk of a nation. This current study is a preliminary work that looks at a sample of 30 countries over the 1984-2012 period. Ongoing research is examining a total of 140 countries during the same time period. The study also categorizes countries by their regime types and stages of economic development and the results are clustered in bubble charts for easier interpretation. Overall, the results show that countries with increased FDI demonstrate decreased political risk levels. Although there are variations across specific countries, country groups that are considered developed and groups that are full democracies tend to exhibit the lowest levels of political risk indicating that FDI inflows could help countries to stabilize themselves politically. The rest of the paper is organized as follows. Section two reviews the literature. The data and methodology is explained in Section three. Results and discussions are provided in Section four. Section five provides the direction of future research and concludes.

2. Literature Review

Political Risk

Political risk assessment is often considered to have its origin in the United States right after World War II when the U.S. government needed language and tools for describing the international risks involved with investing in the rehabilitation of Europe. Since WWII, international investing and FDI have grown rapidly across the world making the need for assessing political risk increasingly pertinent. Because of this exponential growth in only a short period of time there were many different variations and methods for explaining political risk among academics and no conventional wisdom was or has been established. Therefore, the definition of political risk used for the current study comes from the World Bank, a widely used and accredited source, which considers the criticism from Kobrin (1979), Fitzpatrick (1983), and Frynas and Mellahi (2003). According to the Multilateral Investment Guarantee Agency (2011, p. 21):

“Political risk broadly defined is the probability of disruption of the operations of companies by political forces and events, whether they occur in host countries or result from changes in the international environment. In host countries, political risk is largely determined by uncertainty over the actions not only of governments and political institutions, but also of minority groups and separatist movements”

Other studies such as Bremmer (2005) broadly defines political risk as the impacts of politics on the markets. He considers political risk to be any or all factors that might politically stabilize or destabilize a country, and argues that it measures the stability of countries based on factors grounded in government, society, security and the economy. The Political Risk Services Group (PRS), through their International Country Risk Guide (ICRG), commercially produces an overall index of political risk. This consists of 12 weighted components: (1) government stability; (2) socioeconomic conditions; (3) investment profile; (4) internal conflict; (5) external conflict; (6) corruption; (7) military in politics; (8) religious tensions; (9) law and order; (10) ethnic tensions; (11) democratic

accountability; and (12) bureaucracy quality. This is the most comprehensive index of political risk available in a consistent fashion for 140 countries over the 1984-2012 period.

Foreign Direct Investment

Just as the term political risk had its origin in the U.S. so did FDI. Dunning (1979, p. 269-270) notes that the U.S. held three-quarters of total accumulated FDI from 1945-1960 when FDI was being brought to the forefront. Since then, FDI has entered all parts of the world dictated by investors' interests in host-country economies and their resources. Even though FDI has hit a few crashes or on a large scale changed location multiple times, global FDI has shown a dramatic increase over the last few decades (UNCTAD, 2014). In 2013 alone, global FDI flows rose by 11 percent (\$1.46 trillion) and all countries grouped by stages of economic development increased (developed, developing and transition) (UNCTAD, 2014, p. 2).

It is important to note the changes in the FDI arena as it relates to the current study. First, FDI's largest (in relation to FDI flow amount) and most historically consistent source of inflows and outflows has been the developed countries. The key exceptions to this fact is that in 1913 (first showings of FDI) developing countries received two-thirds of global FDI and in 2012 and 2013 developing countries took the majority of FDI inflows again. In the year 2012, it was the first time developing countries exceeded developed countries' FDI inflows. This study uses the World Bank's (2014) most current definition of FDI as it is a commonly used source among academics and practitioners that encompasses the evolution of FDI's ownership quality aspects within the definition:

"Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments."

Unlike political risk, FDI has a more concrete measure and can be valued by the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital (World Bank, 2014).

How Political Risk Affects FDI

The literature on the relationship between FDI and political risk has been predominantly focused on the effect of political risk on determining the placement of FDI flows. Ekpenyong and Umoren's (2010, p. 28) study defines political risk as events that have "destabilizing effects on the polity, and distorts the functionality of an enterprise." They add other components that they found significant when evaluating political risk for that time period (remembering that political risk components are subject to change over time): "Increases in political terrorism, social inequalities, the North-South question, as well as poverty and disease" (Ekpenyong and Umoren, 2010, p. 30). Ekpenyong and Umoren (2010, p. 31) conclude that these sources of political risk "provide opportunities for wars, insurrections, government takeover of assets, bombings, and hostage takings amongst others; all of which are inimical to business success." This conclusion shows that political risk does have an effect on FDI, and arguably a negative effect since Ekpenyong and Umoren (2010) only describe adverse impacts on business when political risk is increasing.

Asiri and Hubail (2014) use the Eurom and Economic Intelligence Unit indices to measure political risk for their study examining political and economic factors that influence the determination of country risk ratings. Asiri and Hubail (2014) claim that, country risk (and therefore political risk, component of country risk) analysis is crucial for the profitability of overseas investments because it helps investors make rational decisions to limit the foreign risks.

Kobrin (1979, p. 69) states, "At least in the short term, politics determines economic activity and economics can determine politics [addressing his example of the distribution of money affecting the distribution of power]." Using the Spearman's Rank Correlation Coefficient, Lewandowski (1997) examined political risk as one of the four risk sources that determines FDI and the results showed

significance for emerging market countries. Using the Gravity Model, Baek and Qian (2011) find that political risk is a significant determinant of FDI in both industrialized and developing nations, but that the significance of it for developing countries has increased recently. Ritab and Abdul's (2013) study confirm the influence of political risk on FDI from their results that show agglomeration, market size, and political risk are all significant and positively related to FDI. Solomon and Ruiz (2012) claim that in general, political risk and exchange rate uncertainty reduce FDI.

How FDI Affects Political Risk

The majority of the previous literature explored how political risk affects FDI. Studies that analyze how FDI affects political risk are few and quite recent. One of the contributions of the current study is that it looks at whether FDI can have a bearing on political risk and the implications of such a relationship.

Schroeder's (2008) study finds that there is still a need for a theoretical framework to assess country risk (and political risk). In Schroeder's (2008, p. 504) analysis of country risk determinants, she makes the connection between economic distress (which can be caused by lack of FDI since it is such a large portion of many countries' GDP) and elements of political risk by giving examples of political and economic consequences from a country experiencing economic distress. Since the literature on this relationship is very recent and sparse, the studies referenced here, like Schroeder's (2008), make the connection between FDI and its effects on determinants of political risk; consequently not explicitly referring to the broader term "political risk". The determinants of political risk that are mentioned here are all from the ICRG's political risk rating index. The assumption here is that if FDI affects determinants of political risk, then there is reason to explore the effect it has on political risk as a whole, which is the dependent variable being explored in this study.

Zaharia et al. (2011) conducted a study to see if transnational corporations influence global trade, the state of international law, the legal status of corporations in international law, and human rights in the host country. The study concludes with the finding that transnational corporations have a dominant role on the political risk variables that were tested (Zaharia et al., 2011). Dutta and Roy (2009) test FDI's impact on another political risk sub-determinant: free press. After empirically surveying 115 countries over a period of 20 years, the results reveal that FDI is an absolute necessity for a free and efficient media (Dutta and Roy, 2009).

Feng's (2014) study demonstrates another connection for FDI's effect on democratic accountability, the same political risk determinant as Dutta and Roy's (2009). Feng (2014) uses regression analysis to confirm that FDI does have an effect on democracy, but the effect can be different depending on the regime of the FDI home country or on the sector FDI is flowing to. FDI from developed democratic countries has a positive influence on democratization in the host country, while also having a pro-authoritarian effect on FDI in the primary sector (negative democratization effect) (Feng, 2014, p. 121). It is important to note that democratization in developing countries is a "long and tough evolution" since most of them must transition from authoritarian regimes (Feng, 2014, p. 117). This insight on the aspects of long term versus short-term effects of FDI on sub-determinants of political risk, like democratization, should be taken into consideration and not assumed that FDI's impact will be seen overnight. The current study acknowledges the time it takes for countries to transition and how that may affect political risk in the analysis.

The latter findings suggest that FDI is encouraged from developed democratic countries to developing countries, only if the FDI is going to non-primary sectors (Feng, 2014, p. 122). FDI in the primary sector which involves making use of natural resources (e.g. mining, fishing, forestry and agriculture) fuels authoritarianism in developing countries, like the Middle East. This is why the Feng (2014, p. 122) suggests a decrease of FDI in the primary sector in Asia, Africa and the Middle East and an increase of FDI in the manufacture, service and technological sectors. These differences in the way FDI affects democratization are acknowledged by Feng (2014), which creates new

skepticism in the literature and gives more significance to the current exploration of this study, especially addressing the potential long term and short term differences, the difference in region, and the difference in developmental stage.

The next piece of literature examines the effect of FDI on another political risk determinant: conflict (per ICRG, 2014). Addison and Murshed (2003) discuss the growing world interest, especially of economists, in international business and its effect on global conflict. Using other economic, political and corruption literature, their discussion raises some points for acknowledgement. First, the idea of the growing inequality gap is possibly an explanation for the growing number of civil wars around the world from the most recent decades (Addison and Murshed, 2003, p. 392). As stated before, FDI is a huge source of GDP for developed countries that have tended to only invest in one another, historically ignoring developing countries, which increases this income gap. It is also important, Addison and Murshed (2003) explain, that the idea of income inequality is not the exact cause of civil war, but it is the success (or lack thereof) of the institutions created to manage income inequality that lead toward violent or peaceful civil war. These institutions, especially for developing countries, need capital, technological know-how and expertise to create and maintain these institutions that can stabilize the country. Less FDI and help from the developed world may be a reason for lack of stability and success of these developing countries' institutions. FDI is a helpful, if not necessary component, for creating stability.

The next point is based on the assumption that in general the further developed a country is the lower the political risk there will be. This assumption provides the logic for the next study to demonstrate how increased FDI may positively impact political stability. Lautier and Moreaub (2011) argue that domestic investment in the host country brings about development. The overwhelming trend that FDI flows among developed countries demonstrates the fact that investors feel more comfortable in places where there is development. Once FDI flows into a developing host country, the capital from FDI can easily surpass the money raised from their own domestic development operations. With more capital accumulation in the country, development will likely increase further. From their study on the impacts of domestic investment on FDI in developing countries, Lautier and Moreaub (2011, p. 19) support this idea: "Our results show that the promotion of domestic firms' investment will lead to more FDI inflows." The current study explores this idea that as a country receives more FDI it usually becomes more and more developed. This development may be a good indicator that political stability is increasing since measures of development and political stability share many common determinants.

Along the same lines, Al Azzawi (2012, p. 632) examines the effect of FDI on innovation and productivity in the host and home countries and finds that both inward and outward FDI are found to have a strong positive effect on domestic innovation and productivity in countries that are technological followers. Moreover, Lautier and Moreaub (2011) found that even where productivity spillover effects are absent FDI can still improve host-country welfare. The improvement to host-country welfare, again, implies that political risk must be low or lowering because improving country welfare and increasing political risk seem unlikely to be present at the same time. AlAzzawi (2012) and Lautier and Moreaub (2011) help to explain where the idea for the current study came from. These studies give a general overview to the logic that if FDI in a country is fluctuating, it will influence other elements of the host-country's society and government.

The question of whether and how FDI affects political risk remains unanswered. However, the recent literature discussed in this section shows the attempts made at investigating the effects of FDI on political risk. The growing trends for FDI, the interest in the literature on effects of FDI, and the attempts at finding effects of FDI on elements of political risk demonstrate the need for further research on: *How FDI flows affect political risk as a whole.*

3. Data and Methodology

The primary variables of interest in the current study are FDI inflows and political risk. A log-linear regression model based on Ordinary Least Squares with corrections for serial correlation is used to analyze a sample of 30 country's time series over the 1984-2012 period. As mentioned earlier, this is a preliminary work of an ongoing study where future research will be using a panel data method in addition to the time series to test a sample of 140 countries over the same period.

The dependent variable in our model is a constructed index of political risk. The International Country Risk Guide (ICRG) provides political risk ratings for countries on a score of 0 to 100, with 0 denoting maximum political risk and 100 denoting the country is politically stable. Because the ICRG index is set up in a way that really measures political stability, we construct an index of political risk by subtracting each country's political stability score (given by the ICRG's index) from 100 to give a score that measures political risk. Hence, in our study a political risk index of 0 indicates maximum political stability and 100 indicates maximum political risk.

The ICRG's political risk source is used by this study because it is exhaustive, inclusive and well referenced in the literature. Frynas and Mellahi (2003) bring up social factors that are often forgotten, but the ICRG includes social components. The components are well defined and have sub-components within them for specification and clarification, and ambiguity has been a critique of political risk in the past. There are exact weights that have been assigned to each component and therefore make the method easily replicable and easy to manipulate and isolate components individually. The ICRG political risk rating index can be found in studies such as Howell (2014), Ritab et al. (2013), Lautier et al. (2012) Baek and Qian (2011), Iris and Schnitzer (2007), Claude et al. (1996), Sethi and Luther (1986).

Our main explanatory variable is FDI inflows, collected from UNCTAD (2014). Studies that use FDI flows include Lewandowski (1997), Solomon et al. (2012), Lautier et al. (2012), and Feng (2014). Solomon et al. (2012) and Lautier et al. (2012) use FDI flows as a percentage of GDP and Feng (2014) uses FDI flows because of the lack of available data on FDI stocks. Like Feng (2014), this study is confronted with the limited data availability on FDI stocks.

In this preliminary study, the 30 countries were selected based on the ones that had the highest levels of FDI (Australia, Belgium, Brazil, Canada, Chile, China, Colombia, France, Germany, Hong Kong, India, Indonesia, Ireland, Italy, Luxembourg, Mexico, Netherlands, Russia, Singapore, Spain, Sweden, Switzerland, United Kingdom, and United States) and the lowest levels of FDI (Bangladesh, Haiti, Iran, Madagascar, Saudi Arabia, and Togo).

After compiling the three groups of countries into one sample of 30, countries are then documented on their stage of development and their regime type. The source of each country's current stage of development was taken from the World Bank's Country Analytical History (2014) that is based on the World Development Indicators. This was crosschecked with the United Nations Department of Economic and Social Affairs (UN/DESA) report on countries' development stage for 2012. There are three stages of development according to the UN/DESA report: developing economies, economies in transition and developed economies. These three economic stages of development are used in the current study to categorize each of the 30 countries.

Each country's regime type was then documented for the most current year for the study (2012). The information was gathered from the Economist, which published the Democracy Index 2012 from the Intelligence Unit (Intelligence Unit, 2013). There are four regime types possible for a country, according to the Intelligence Unit, which are: full democracy, flawed democracy, hybrid regimes, and authoritarian regimes. Each country's regime in 2012 was determined by a set of five factors: electoral process, pluralism, civil liberties, the functioning of government, political participation and political culture. Each country is given a score from 1 to 10 based on these indicators (Intelligence Unit, 2013, p. 26-27). The entire sample was categorized by economic stage of

development and regime type to see if there were different effects of FDI on political risk in those countries.

4. Results and Discussions

Tables 1 and 2 provide a summary of the FDI coefficients of the sample countries as estimated by the regression models. The countries are rank ordered by their FDI coefficients, in descending order of political risk, that is, in ascending order of political stability. There were 25 countries with a negative FDI coefficient and 5 countries with a positive FDI coefficient. The range for the negative coefficient group was (-0.3306, -0.0027) with a median of -0.0412 and a mean of -0.07062. The positive coefficient group had a range of (0.0053, 0.1566) with a median of 0.0246 and a mean of 0.04676. The countries are also ranked within the groups that they are categorized in. These categories include their current regime and stage of economic development to see if there are differences among each category. A negative and statistically significant FDI coefficient indicates that FDI has a stabilizing effect on political risk: more FDI inflows are associated with lower levels of political risk. For example, in the case of China, a one percent increase in FDI inflows into China results in a 0.018 percent decrease in China's political risk. Such results confirms our claim that as FDI comes into China it brings foreign expertise, capital and technological know-how, which tend to stabilize the country politically.

Country	Coefficient	Regime	Stage of Development
Italy	-0.0027*	Flawed Democracy	Developed
Colombia	-0.0044*	Flawed Democracy	Developing
Brazil	-0.0073*	Flawed Democracy	Developing
Australia	-0.0156*	Full Democracy	Developed
China	-0.018*	Authoritarian	Developing
Madagascar	-0.0181*	Authoritarian	Developing
USA	-0.0212*	Full Democracy	Developed
Luxembourg	-0.0221*	Full Democracy	Developed
Sweden	-0.0252*	Full Democracy	Developed
Bangladesh	-0.0318*	Hybrid Regime	Developing
UK	-0.0322*	Full Democracy	Developed
Saudi Arabia	-0.035*	Authoritarian	Developing
Belgium	-0.0412*	Full Democracy	Developed
India	-0.0583*	Flawed Democracy	Developing
Mexico	-0.0633*	Flawed Democracy	Developing
Singapore	-0.0785*	Hybrid Regime	Developing
Canada	-0.0845*	Full Democracy	Developed
Ireland	-0.085*	Full Democracy	Developed
Netherlands	-0.0891*	Full Democracy	Developed
Hong Kong	-0.0964*	Flawed Democracy	Developing
Indonesia	-0.0979*	Flawed Democracy	Developing
Spain	-0.1055*	Full Democracy	Developed
Chile	-0.1974*	Flawed Democracy	Developing
Russia	-0.2042*	Authoritarian	Transition
Germany	-0.3306*	Full Democracy	Developed

Table 1: Countries with Negative FDI Coefficients

Country	Coefficient	Regime	Stage of Development
France	0.0053	Full Democracy	Developed
Togo	0.0101*	Authoritarian	Developing
Haiti	0.0246*	Hybrid Regime	Developing
Iran	0.0372*	Authoritarian	Developing
Switzerland	0.1566	Full Democracy	Developed

Table 2: Countries with Positive FDI Coefficients

Results by Stage of Economic Development

There is debate within the FDI and political risk literature that there are differences in the amount of influence a country may experience from FDI because of their stage of economic development. Some countries are thought to be affected differently because the spillover benefits from FDI due to increased capital, technological know-how and expertise that FDI brings, are thought to be more influential in one type of economy over another. These differences are mainly discussed when it comes to FDI's influence on overall host-country development and not specifically political risk. Because of this debate and the lack of knowledge on FDI's direct effect of political risk,

the current study looks at each country's stage of development to see which how countries are affected differently with increased FDI. Countries are classified either as developing economies, economies in transition or developed economies using the World Bank's classification.

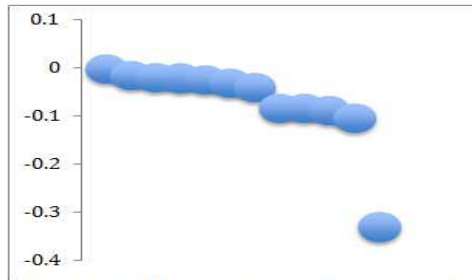


Figure 1: Coefficients for Developed Countries

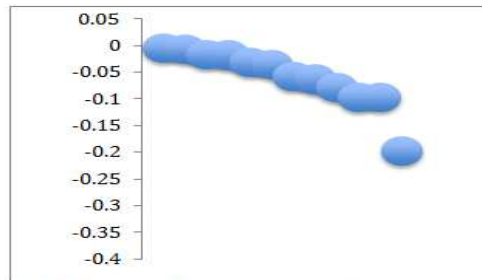


Figure 2: Coefficients for Developing Countries

Figures 1 and 2 show the FDI coefficients for each stage of economic development. Figure 3 shows country group coefficient averages by their stage of development. The results from these figures show that, in general, FDI seems to have a more stabilizing effect politically in developed countries compared to developing countries, and FDI in transition economies tends to have the biggest stabilizing effect. However, as noted, the transition economy group in the sample under study consists of only Russia. The outlier in the developed country category (Figure 1) is Germany, which is highly developed and FDI has been very stabilizing. The outlier in the developing category (Figure 2) is Chile that has been receiving plenty of FDI recently and creating a politically stabilizing situation. Regarding positive FDI coefficients, there are only 2 developed countries, 3 developing countries and 0 transition countries. So, that it was difficult to draw any general conclusions based on development stage.



Figure 3: Country Group Coefficients by Stage of Development

Results by Political Regime Type

The concept of time is another important variable that is discussed within the literature and becomes pertinent when analyzing the effect of FDI on countries who have different types of regimes. Regime type may cause variations within the results because some regimes, like authoritarian, may not experience the same FDI spillover benefits if the government controls FDI and its resources. Another reason the regime type could vary the results is if the government keeps the FDI spillover benefits within the hands of the elites and uses them for their own personal gains. This in turn can lead to corruption and even civil unrest within the country, which means an increase in FDI would actually increase political risk. For these reasons, the results could show a positive relationship between FDI and political risk, but probably for only a limited amount of time until internal or external forces change the government in power or change the type of regime entirely.

There are four regime types that are used in this study based on the Intelligence Unit (2013) classification: authoritarian, hybrid, flawed democracy and full democracy. In our sample, this results in 6 authoritarian regimes, 3 hybrid regimes, 9 flawed democracies and 12 full democracies. Only the countries with a negative coefficient are used because this was the majority of the results. Of the five countries with a positive relationship, there were only 2 authoritarian, 1 hybrid and 2 full democracies. This is not enough data to make any valid claims or draw conclusions. The results are shown in Figures 4 to 7.

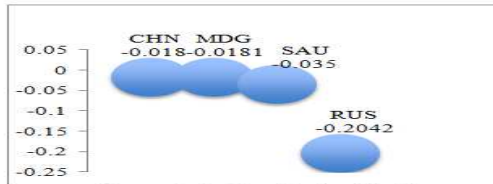


Figure 4: Authoritarian Regimes

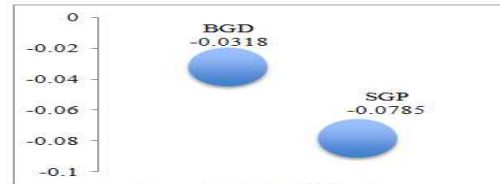


Figure 5: Hybrid Regimes

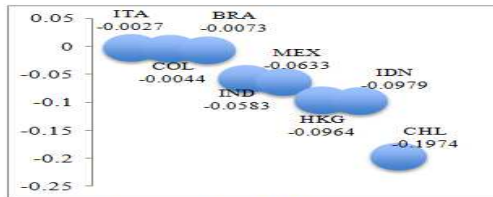


Figure 6: Flawed Democracies



Figure 7: Full Democracies

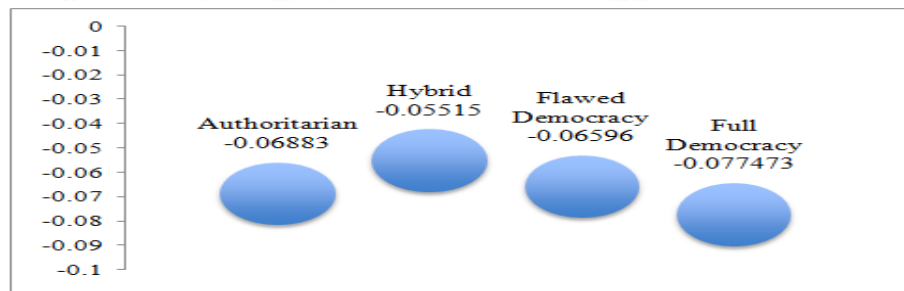


Figure 8: Country Group Coefficients by Political Regime Type

Figures 4, 5, 6 and 7 display the negative FDI coefficients of the countries taking into account their various government regimes. The mean coefficients of each group are summarized in Figure 8. The overall results match the extant literature which suggests that although there are variations across specific countries, country groups that are full democracies tend to exhibit the lowest levels of political risk when FDI flows in and those countries that have an authoritarian, hybrid and even flawed democracy (where corruption is more common within the government/elites), they tend to have higher political risk.

5. Conclusions and Future Research

The current study is a first contribution to the literature that explores the quantitative effect of FDI on political risk. Though FDI and political risk have long been said to have a relationship, it has been one where political risk is found to affect FDI and this perspective is mainly relevant to the investment community. However, in reversing the relationship (i.e. running from FDI to political risk), the first step must be to see if any such relationship even exists; this is the basis of this study. This study tested 30 countries over a 28-year period (1984-2012) and derived coefficients that represent the FDI-political risk relationship. In the sample under study, 25 countries exhibited that an increase in FDI leads to a reduction in political risk. In addition, it appears that FDI in developed countries tend to be more stabilizing politically than in developing countries, and countries that are full democracies tend to experience a more politically stabilizing effect of FDI compared to other types of regimes. Overall, this means that FDI inflows tend to reduce political risk, or promote political stability. This reinforces the notion that as countries try to fill their institutional voids and move towards democratic regimes, they will likely be more politically stable when they attract FDI. In this globalized era, it appears that an important component of political stability is the presence of foreign direct investors in host countries. Most studies show that low political risk tends to promote FDI. Our study shows that the presence of FDI itself could enhance the level of political risk. Our argument is that FDI can create important stakeholder effect in a host country and, because of that, host country governments may want to make sure political risk is contained in order to retain the

foreign direct investors who bring in know-how, capital stock and expertise. Thus it can be argued that FDI itself could lead to a reduction in political risk, as the current study demonstrates here.

It should be noted, however, that the current study is in no way making a case to include an FDI variable in political risk measures. Instead, the study shows that overall FDI does impact political risk and ignoring this fact would bias the interpretation of the political risk-FDI relationship. Hence, FDI should be taken along with any other components of political risk for a more accurate evaluation of a country's political risk situation.

In addition, this is a work in progress that only describes the first step in attempting to answer to the research question: How does FDI affect political risk? Ongoing research is currently trying to analyze all the 140 countries documented by the ICRG (2014) using both time series and panel data models. Following Ernst (2014), we will also be looking at how the FDI-political risk relationship may be different for country groupings at various income levels or stages of economic development.

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Knowledge management, organizational innovativeness, business competitiveness and potential operations of electrics and electronics businesses in Thailand

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Keywords

Knowledge Management, Organizational Innovativeness, Business Competitiveness, Potential Operation

Abstract

Knowledge is an important topic in modern management. Knowledge considers the new wealth of organizations by which superior business performance and a competitive advantage can be achieved. The primary objective of this research aims to investigate the influence of knowledge management to organizational innovativeness, business competitiveness and potential operation via competitive intensity and market turbulence as a moderator. Data were collected from 104 electrics and electronics businesses in Thailand. Multiple linear regression was performed in this study. The results indicated that the dimensions of knowledge management, namely, knowledge transfer affect product innovativeness and knowledge application affect product innovativeness, process innovativeness, and potential operation. While the competitive intensity and market turbulence not shown moderator effect. The implications of the results of the study are discussed.

Introduction

In the last decade, knowledge is considered the new wealth of organizations by which superior business performance and a competitive advantage can be achieved. Knowledge has become one of the most important trends in business because organizations are trying to achieve greater value from the knowledge they possess (Abesonand Taku, 2009). Knowledge is an important topic in modern management. Both scholars and practitioners recognize the importance of knowledge to organizations in achieving and maintaining a competitive advantage and business competitiveness. According to Nonaka (1991), knowledge is an enduring source of competitive advantage. Some scholars believe that knowledge is the most valuable and important resource possessed by an organization and critical to an organization's survival (Chang and Lee, 2007; Alaviand Leidner, 2001).

In an extensive competitive pressure and rapid technological change environment, have led to firms use of knowledge as the strategic factor to create organizational innovativeness and business competitiveness (Mehrdadand Abdolrahim, 2010). In this competitive pressure and market turbulence situation, the complexity of organizational innovation has also been increased by growth in the amount of knowledge available to organizations as the basis for innovation in a firm (Mehrdadand Abdolrahim, 2010). Now it is widely recognized that knowledge is an essential strategic resource for a firm to retain a sustainable competitiveness (Tsai and Yang, 2013). Knowledge management literature highlights this fact that, in the new economy, the achievement of innovation and a business competitive advantage depends on the firm's capacity to develop and deploy its knowledge-based resources. Knowledge management is an emerging set of organizational design and operational principles, processes, organizational structures, applications and technologies that help knowledge workers dramatically leverage their creativity and ability to deliver business value to the customer and the organization can get business competitiveness and potential operation.

The research questions of this paper are:

- 1) how does knowledge management affect on organizational innovativeness and potential operations?
- 2) how does the organizational innovativeness effect on business competitiveness and though potential operation?
- 3) how does the competitive intensity moderate affect the relationship between knowledge management and potential operation?
- 4) how does market turbulence moderate affect the relationship between organizational innovativeness and business competitiveness?

In this research the purpose are 1) to investigate the influence of knowledge management to organizational innovativeness and potential operation.

2) to investigate the impact of organizational innovativeness on business competitiveness and potential operation. 3) to examine the effect of competitive intensity and market turbulence moderated relationship antecedent of the potential operation.

1. Theoretical foundation and literature Review

Knowledge-based View of the Firm (KBV)

It is largely accepted that the knowledge-based (KBV) view of the firm is a recent extension of the resource-based view of the firm (RBV) of the firm (Grant, 1991; Hoskisson et al., 1999). Because it considers those organizations are heterogeneous entities loaded with knowledge (Hoskisson et al., 1999). The resource base of the organization increasingly consists of knowledge-based assets (Rouse and Dallenbach, 2002). Knowledge resources are particularly important to ensure that competitive advantages are sustainable, as these resources are difficult to imitate they are the foundation for sustainable differentiation (Curadoand Bontis, 2006). Capabilities of knowledge management are considered to be the most strategically important ones to create and sustain competitive advantage. Superior talent is recognized to be the main creator of sustained competitive advantage in high-performance firms (Wernerfelt, 1984). The capacity to learn faster than competitors could turn out to be the only sustained competitive advantage. This research summarizes the ideas presented in figure 1. The framework depicts that the four dimensions of knowledge management on organizational innovativeness, business competitiveness, and potential operation while competitive intensity and market turbulence as a modulator.

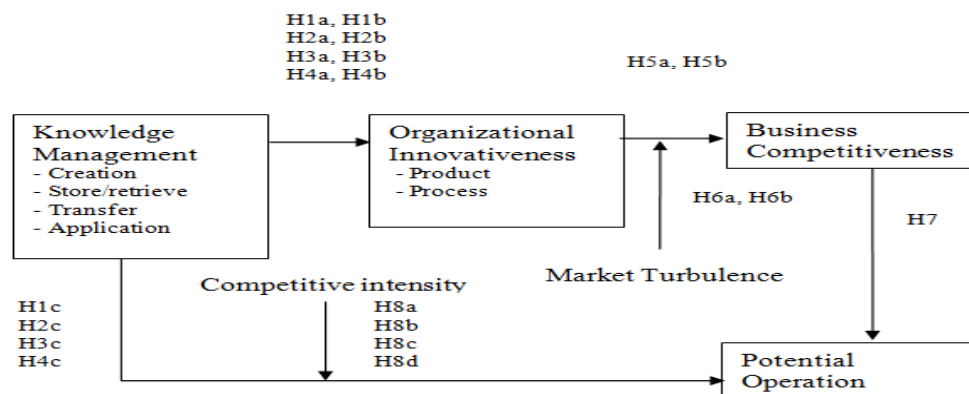


Figure 1 Model of knowledge management and consequence

Knowledge Management

Knowledge management is a systemic and organizationally specified process for acquiring, organizing, and communicating both tacit and explicit knowledge of employees so that other employees may make use of it to be more effective and productive in their work (Alaviand Leidner, 2001). Knowledge management encompasses a broad range of tools, technologies, and practices intended to make better use of a firm's intellectual resources (Davenport and Prusak, 1998). Abesonand Taku (2009) argues that knowledge management is about sharing knowledge

qualitatively and about saving time quantitatively. According to Abesonand Taku (2009) found that knowledge creation acquired by the owners of the firm from colleagues, salesperson, trade publication family members and social contact are a positive effect on competitiveness. Knowledge management includes many activities. Alavi and Lediner (2001) classify four issues in their research - knowledge creation, storage/retrieval, transfer, and application.

Knowledge creation

Knowledge creation is activities for developing new content or replacing existing content within the interactions of tacit and explicit knowledge. Nonaka (1994) presents four modes of knowledge creation through the interactions of tacit and explicit knowledge: (1) socialization, (2) externalization, (3) internalization, and (4) combination. Knowledge creation may be viewed as an upward spiral process, starting at the individual level moving up to the collective level, and then to the organizational level, sometimes reaching out to the inter-organizational level. Knowledge creation might lead to new designs of production and work process. Successful of innovation means more than research and development must create new ideas and transformed into product, process and services that will be sold in the market. According to Merx-Chermin et al., (2004) found that knowledge creation is a factor influence the innovation process. Thus, the hypotheses are proposed as below:

Hypothesis 1a: Knowledge creation will have a positive relationship to product innovativeness.

Hypothesis 1b: Knowledge creation will have a positive relationship to process innovativeness.

Hypothesis 1c: Knowledge creation will have a positive relationship to potential operation.

Knowledge Storage/Retrieve

When knowledge workers resign or retire from a firm without the proper storage of the knowledge they have obtained, customer relationships or performance may be impaired. Knowledge storage is an activity obtaining knowledge inside and outside firms and coding it store in the database easily accessible for everyone. An important consideration with knowledge storage is how much context to include (Alaviand Leidner, 2001). Knowledge is context-specific and thus, without sufficient contextual details, it will not result in effective use. Alavi and Leidner (2001) present two conceptual models in regard to knowledge retrieval - pull and push. The pull model of knowledge retrieval involves the search for knowledge based on specific user queries. In the push model, knowledge is automatically retrieved and delivered to potential users based on predetermined actions. It formalizes knowledge store can provide the possibility of utilizing it later. Knowledge store is similar to organizational memory, in which it enables an individual to store, integrate, and retrieve the information for improving product or service to market (Lee et al., 2013). Thus, the hypotheses are proposed as below:

Hypothesis 2a: Knowledge store/retrieve will have a positive relationship to product innovativeness.

Hypothesis 2b: Knowledge store/retrieve will have a positive relationship to process innovativeness.

Hypothesis 2c: Knowledge store/retrieve will have a positive relationship to potential operation.

Knowledge Transfer

Knowledge, once captured, must be disseminated throughout a firm to foster productivity and innovation (Lee et al., 2013). Knowledge transfer is readily dissemination knowledge and information inside the organization. Knowledge transfer occurs at various levels: between individuals, from individuals to groups, between groups, across groups, and from groups to a firm (Alaviand Leidner, 2001). However, researchers find that knowledge transfer is difficult. The tacitness of knowledge is a widely recognized barrier to its transfer. Motivational depositions and absorptive capacity also make knowledge transfer hard. Gupta and Govindarajan (2000) address five factors to escalate knowledge transfer: (1) value of knowledge, (2) willingness to share knowledge, (3) existence and richness of transmission channels, (4) willingness to acquire knowledge from the

source, and (5) absorptive capacity of the target units. Information technology may enhance the transfer of explicit knowledge by extending people's reach beyond formal communication lines (Alavi and Leidner, 2001). Knowledge management transfer can support innovation, the individual generation of new ideas and transfer to the organization created new product and service (Plessis, 2007). Thus, the hypotheses are proposed as below:

Hypothesis 3a: Knowledge transfer will have a positive relationship to product innovativeness.

Hypothesis 3b: Knowledge transfer will have a positive relationship to process innovativeness.

Hypothesis 3c: Knowledge transfer will have a positive relationship to potential operation.

Knowledge Application

Knowledge creation, knowledge storage/retrieve, and knowledge transfer do not enough to improve the performance of a firm. Knowledge application is responding to knowledge about customer, competitors and technology. It is the effective application of knowledge that reduces costs, improves productivity, generates a new product and new service (Aberson and Taku, 2009). Alavi and Leidner (2001) suggest that firm should pay more attention to the cognitive processes of people for effective knowledge application to generate new product and firm competitiveness. Knowledge application is a strategic competitive asset for modern businesses (Lee et al., 2013). Knowledge application is useful for promoting organization innovativeness, allows organization expertise and used knowledge to be translated into products or process produced. Thus, the hypotheses are proposed as below:

Hypothesis 4a: Knowledge application will have a positive relationship to product innovativeness.

Hypothesis 4b: Knowledge application will have a positive relationship to process innovativeness.

Hypothesis 4c: Knowledge application will have a positive relationship to potential operation.

Organizational Innovativeness

The concept of innovativeness was initially utilized to describe individual consumers' attitudes and acceptance of new products in the literature of communication and diffusion of innovations (Rogers, 1983). Organizational innovativeness can be defined as an organization's overall innovative capability of introducing new products to the market, or opening up new markets, through combining strategic orientation with innovative behavior and improve the business process (Wang and Ahmed, 2004). Consumers with a characteristic of innovativeness are more likely to try and accept new products in the market than other individuals. Many innovations, however, maximize utility in the organizational context, or must be adopted by a collective before they are accepted by individual members (Rogers, 1983). Organizational innovativeness thus becomes an indication of the degree to which an organization is willing to accept and implement innovations. The literature on innovativeness can identify many areas that are components of an organization's overall innovative capability. These dimensions can divide into two groups include product or services innovation and process innovativeness (Wang and Ahmed, 2004). Organizational innovativeness has received to be the key to securing a sustainable competitive in the marketplace (Lee et al., 20013; Hurley and Hult, 1998; Lumpkin and Dess, 1996). Thus, the hypotheses are proposed as below:

Hypothesis 5a: Product innovativeness will have a positive effect to business competitiveness.

Hypothesis 5b: Process innovativeness will have a positive effect to business competitiveness.

Business competitiveness

Competitiveness of a firm can view as a capability has to be realized in a firm everyday operation (Cetindamarand Kilitcioglu, 2013). Companies today are immersed in highly dynamic markets, where the goal to satisfy the customer is no longer sufficient for long-term success and the best business performance. Thus, companies seek to develop mechanisms to obtain business

competitiveness by generating and used knowledge about customers, markets and competitors (Banalesand Andrade, 2011). Business competitiveness can be defined as the capability to provide product and services in the same or more efficient way, than a competitor does in business (Dima et al., 2014). The business competitiveness was mainly the quality and price of goods or services. A firm can then raise the level of its productivity and competitiveness by upgrading its image and developing its unique characteristics for best potential operation (Chuang and Chuang, 2015). Therefore, the aforementioned relationships are hypothesized as shown below.

Hypothesis 7: Business competitiveness will have a positive potential to affect operation.

Potential Operational

The potential operation is defined as an ability of the firm to reach an organizational goal and continuous growth in business. According to Baney (1991) indicated that if a firm can successfully prevent latent competitors from copying and simultaneously executing the same operating value and continues business operation, the firm can be considered as having a competitive advantage and potential operation (Chuang and Chuang, 2015). The degree of potential operation can measure by both financial indicators and non-financial indicators. Similarly, Hult et al. (2004) argued that strengthening their organization innovativeness and business competitiveness assists the organization to reach the organization's goal and superior business performance. In their study, Hult et al., (2004) found that organizational innovativeness to be important positively affect firm performance in term profitability, growth in sales and market share.

Moderating Effect

Market Turbulence

Market turbulence refers to the rate of change in customer preferences in an industry (Jaworskiand Kohli, 1993). Market turbulence reflects the degree of change in customer preferences for products in an industry and it is a major source of environmental turbulence. An organization must clear understanding of their customers need and want by monitoring and analyze the industry environment (Hanvanich et al., 2006; Hult et al., 2004; Santos-Vijandeand Alvarez-Gonzalez, 2007).

According to the theoretical perspectives, market turbulence may moderate the effect of organization innovativeness on business competitiveness. Changing customer demands require that firms rely on creativity to continuously modify their products and services and to adjust their operations (Tsai and Yang, 2013). Innovative organizations are likely to develop new product and service to exploit rapidly changing customer demands and to capture new product-market niches. Under the conditions of high market turbulence, a firm's innovativeness is particularly important to satisfy the evolving needs of customers (Santos-Vijandeand Alvarez-Gonzalez, 2007). Innovativeness enables firms to combine and reconfigure their intangible and tangible assets in new ways and thereby build the capabilities that they can use to neutralize threats and exploit opportunities in turbulent markets (Tsai and Yang, 2013). In sum, Organizations with high innovativeness can take better opportunities and advantage of rapidly change, customer needs, create new solutions to customer problems, thus, organization innovativeness may produce greater business competitive, Therefore, the aforementioned relationships are hypothesized as shown below.

Hypothesis 6: Market turbulence has a positive moderating effect on the relationship (a) product innovativeness (b) process innovativeness and business competitiveness.

Competitive Intensity

Competitive intensity refers to the degree of market competition faced by a firm (Tsai and Hsu, 2014; Jaworskiand Kohli, 1993). Under conditions of greater environmental business change and is often viewed as a useful mechanism for responding to new competitive forces (Tsai and Hsu, 2014). Specifically, firms that operate in dynamic environments are likely to be more innovative, less risk-averse, and more proactive than those facing less uncertainty and fewer external pressures (Tsai and Yang, 2013). Environmental change captures the perceived instability of the firm's market due to ongoing changes, and for some firms, such dynamism brings new business opportunities (Chen et

al., 2015). In highly intensive competition, firms tend to pay more attention to their competitors, firm use their knowledge and invest in R&D, new product/service to market for continuous growth in business. Therefore, the aforementioned relationships are hypothesized as shown below.

Hypothesis 8: Competitive intensity has a positive moderating effect on the relationship with (a) knowledge creation (b) knowledge store/retrieve (c) knowledge transfer (d) knowledge transfer and potential operation.

Research Method

Data Collection

The population and sample are the 355 electrics and electronics businesses in Thailand. A mail survey procedure via the questionnaire was used for data collection. The key participants in this study were managers or general managers. The questionnaire was sent to 355 general managers 'electrics and electronics businesses. With regard to the questionnaire mailing, 20 surveys were undeliverable because some firms were moved to the unknown locations. The valid mailing was 335 surveys, from which 108 responses were received. Of the surveys completed, only 104 were usable. The effective response rate was approximately 30.04%. According to Aaker, Kumar and Day (2001), the response rate for a mail survey, without an appropriate follow-up procedure, is greater than 20% is considered acceptable.

Variables measurement

This research employs questionnaires as the instrument for collecting data. The questionnaire design was developed from a wide review of the literatures, reviewed by academic improved and chosen the best possible scale of measure.

Dependent Variable

The potential operation is the ability of a firm to reach the organizational goal and continuous growth in business, a continuous incremental growth which focuses on both profit and non-profit success. The measure is created as a new scale with 5 items and anchored by 5-point Likert scale developed from definition and literature review.

Independent Variable

The main construct of this research is knowledge management, organization innovativeness business competitiveness worth of a firm's resources that leading to potential operation. This variable measurement depends on its definition of which construct are briefly explained.

Knowledge management is a systematic process and activities for acquiring, organizing, and communicating both tacit and explicit knowledge of employees so that other employees may make use of it to be more effective and productive in their work comprise four aspects. The measure is created as a new scale with 5 items and anchored by 5-point Likert scale developed from Alavi and Leidner (2001).

Knowledge creation activities for developing new content or replacing existing content within the interactions of tacit and explicit knowledge

Knowledge store/retrieve activities for obtaining knowledge inside and outside firms and coding it.

Knowledge transfer activities transfer of knowledge between individuals, from individuals to groups, between groups, across groups, and from groups to a firm.

Knowledge application the effective application of knowledge that reduces costs, improves productivity, generate new product and new service.

Organizational innovativeness is the organization's overall innovative capability of introducing new products to the market, or opening up new markets, through combining strategic orientation with innovative behavior and improves business process. The measure is created as a new scale with 5 items and anchored by 5-point Likert scale adapted from Wang and Ahmed (2004).

Business competitiveness is the capability to provide product and services in the same or more efficient way than a competitor does in business. The measure is created as a new scale with 5 items and anchored by 5-point Likert scale.

Modulator variables

Competitive intensity is the degree of market competition faced by a firm. The measure is created as a new scale with 5 items and anchored by 5-point Likert scale adapted from Tsai and Hsu, (2014); Jaworski and Kohli, (1993).

Market turbulence is the rate of change in customer preferences in an industry. The measure is created as a new scale with 5 items and anchored by 5-point Likert scale adapted from Tsai and Hsu, (2014); Jaworski and Kohli, (1993).

Validity and reliability

Table 1 presents the results factor loadings of each construct that presents a value higher than 0.4 which is the cut-off point as recommended by Nunnally and Berstein (1994) which is accepted. In addition, Cronbach's Alpha coefficient is 0.785 - 0.957 as being greater than 0.70 the cut-off point recommends by Nunnally and Bernstein (1994). Thus, there is internal consistency of the measures used in this research can be considered good for all variables.

Table 1: Measurement and validation

Variables	Factor Loadings	Cronbach's Alpha
Knowledge creation (KM1)	0.704 - 0.871	0.938
Knowledge store/retrieve (KM2)	0.808 - 0.865	0.932
Knowledge transfer (KM3)	0.805 - 0.940	0.957
Knowledge application (KM4)	0.924 - 0.951	0.926
Product innovativeness (INOP)	0.748 - 0.759	0.812
Process innovativeness (INOC)	0.744 - 0.830	0.847
Business competitiveness (BC)	0.763 - 0.881	0.894
Potential operation (PO)	0.898 - 0.959	0.940
Competitive intensity (CI)	0.802 - 0.869	0.785
Market turbulence (MT)	0.873 - 0.945	0.893

3.4 Statistic Technique

Regression analysis was employed to analyze the relationship between a dependent variable and independent variable. The Ordinary Least Squares (OLS) regression analysis is used to test the hypothesized. From the hypotheses and conceptual models, the following six equation models are proposed:

$$\begin{aligned} \text{Equation 1: INPO} &= \beta_0 + \beta_1 \text{KM1} + \beta_2 \text{KM2} + \beta_3 \text{KM3} + \beta_4 \text{KM4} + \beta_5 \text{FSI} + \beta_6 \text{FC} + \varepsilon_1 \\ \text{Equation 2: INOC} &= \beta_0 + \beta_7 \text{KM1} + \beta_8 \text{KM2} + \beta_9 \text{KM3} + \beta_{10} \text{KM4} + \beta_{11} \text{FSI} + \beta_{12} \text{FC} + \varepsilon_2 \\ \text{Equation 3: PO} &= \beta_0 + \beta_{13} \text{KM1} + \beta_{14} \text{KM2} + \beta_{15} \text{KM3} + \beta_{16} \text{KM4} + \beta_{17} \text{FSI} + \\ &\beta_{18} \text{FC} + \varepsilon_3 \\ \text{Equation 4: PO} &= \beta_0 + \beta_{19} \text{KM1} + \beta_{20} \text{KM2} + \beta_{21} \text{KM3} + \beta_{22} \text{KM4} + \beta_{23} \text{CI} + \\ &\beta_{24} \text{KM1} * \text{CI} + \beta_{25} \text{KM2} * \text{CI} + \beta_{26} \text{KM3} * \text{CI} + \beta_{27} \text{KM4} * \text{CI} + \\ &\beta_{28} \text{FSI} + \beta_{29} \text{FC} + \varepsilon_4 \\ \text{Equation 5: BC} &= \beta_0 + \beta_{30} \text{INOP} + \beta_{31} \text{INOC} + \beta_{33} \text{FSI} + \beta_{34} \text{FC} + \varepsilon_5 \\ \text{Equation 6: BC} &= \beta_0 + \beta_{35} \text{INOP} + \beta_{36} \text{INOC} + \beta_{37} \text{MK} + \beta_{38} \text{INOP} * \text{MK} + \\ &\beta_{39} \text{INOC} * \text{MK} + \beta_{40} \text{FSI} + \beta_{41} \text{FC} + \varepsilon_6 \\ \text{Equation 7: PO} &= \beta_0 + \beta_{42} \text{BC} + \beta_{43} \text{FSI} + \beta_{44} \text{FC} + \varepsilon_7 \end{aligned}$$

Where, KM1 is knowledge creation, KM2 is knowledge store/retrieve, KM3 is knowledge transfer, KM4 is knowledge application, INOP is product innovativeness, INOC is processed

innovativeness, BC is business competitiveness, PO is potential operational, CI is competitive intensity, MK is market turbulence, β_i is regression coefficients, ε_i is the error term.

4. Result and Discussion

Table 2 the descriptive statistics and correlation matrix for all variables is presented. With respect to potential problems relating to multicollinearity, variance inflation factors (VIF) were used to provide information on the extent to which non-orthogonality among independent variables inflates standard errors. The VIFs range from 2.00 - 3.90, well below the cut-off value of 10 as recommended by Hair et al., (2006), meaning the independent variables are not correlated with each other. Therefore, there are no substantial multicollinearity problems encountered in this study.

Table 2: Descriptive statistics and correlation matrix

	KM1	KM2	KM3	KM4	INOP	INOC	BC	PO	CI	MK
Mean	3.45	3.62	3.56	3.75	3.69	3.82	3.42	3.17	3.61	3.82
S.D.	0.89	0.93	0.98	0.84	0.79	0.77	0.77	0.72	0.74	0.68
KM1										
KM2	.86**									
KM3	.54**	.59**								
KM4	.41**	.49**	.72**							
INOP	.62**	.62**	.67**	.43**						
INOC	.53**	.51**	.67**	.24**	.77***					
BC	.40**	.52**	.59**	.40**	.66***	.41***				
PO	.48**	.20**	.62**	.42**	.65***	.77***	.52**			
CI	.27**	.23**	.29**	.20**	.46***	.51***	.66**	.73**		
MK	.29**	.23**	.30**	.19**	.61***	.73***	.26**	.21**	.37**	

** p < 0.05, *** p < 0.01

Table 3: Results of OLS regression analysis I

Independent variables	Models			
	1:INOP	2:INOC	3:PO	4:PO
KM1	0.27 (0.17)	0.17 (0.17)	0.07(0.19)	0.12 (0.22)
KM2	-0.11 (0.15)	-0.14 (0.15)	0.05 (0.17)	0.02 (0.20)
KM3	-0.10 (0.17)	0.32* (0.17)	0.12 (0.19)	0.11 (0.19)
KM4	0.69*** (0.80)	0.48*** (0.09)	0.48*** (0.09)	0.46*** (0.10)
CI				0.10 (0.09)
KM1*CI				-0.11 (0.25)
KM2*CI				-0.10 (0.28)
KM3*CI				0.15 (0.19)
KM4*CI				0.16 (0.11)
Adjusted R ²	0.51	0.50	0.40	0.39

*p < .10, ** p < .05, *** p < .01;

^aBeta coefficients with standard error is in parenthesis.

Table 3 presents the results of OLS regression of hypotheses 1a-4a,1b-4b, and hypotheses 1c-4c. The results of relationships among the four dimensions of knowledge management: creation, store/retrieve, transfer and application. Here, model 1 and model 2 knowledge transfer has a significant positive influence on process innovativeness ($\beta_9 = 0.32$, $p < 0.10$) while, knowledge application has a significant positive influence on product innovativeness and process innovativeness ($\beta_4 = 0.69$, $p < 0.01$; $\beta_{10} = 0.48$, $p < 0.01$). Thus, hypotheses 1a, 1b, 2b 2b and 3a are not supported, while 3b, 4a, 4b are supported. Next, model 3 knowledge application is significant to potential operation ($\beta_{16} = 0.48$, $p < 0.01$). Thus, hypotheses 1c, 2c, 3c are not supported, only hypotheses 4c is supported. Likewise, Lee at al., (2013) who found that knowledge application is useful for promoting organization innovativeness, allows organization expertise and used knowledge to be translated into new products or new process. While, knowledge creates and knowledge, retrieve/store not significant to organization innovativeness it might be firm's not able to use to create and retrieve knowledge stage. Next, in model 4 competitive intensity does not moderate relationship between knowledge management: creation, store/retrieve, transfer, application and potential operation statistical are not significant. Thus, hypotheses 8a, 8b, 8c and 8d are not supported. ($\beta_{13} = -0.11$, $p > 0.10$; $\beta_{14} = -0.10$, $p > 0.10$; $\beta_{15} = 0.15$, $p > 0.10$; $\beta_{16} = 0.16$, $p > 0.10$). The result of this study is contradictory to Tsai and Hsu (2014) were found complete intensity significant to new product performance. This result implied that competitive forces from competitors and environment change not significant enough to modulated relationship.

Table 4: Results of OLS regression analysisII

Independent Variables	Model	
	5:BC	6:BC
INOP	0.27*** (0.12)	0.34** (0.11)
INOC	0.49*** (0.12)	0.51*** (0.11)
MK		-0.19** (0.81)
INOP*MK		0.08 (0.14)
INOC*MK		0.15 (0.13)
Adjusted R ²	0.50	0.59

* $p < .10$, ** $p < .05$, *** $p < .01$;

^aBeta coefficients with standard error is in parenthesis.

Table 4 presents the relationship organizational innovativeness and business competitiveness, the results of model 5 shown product innovativeness significant positive effect to business competitiveness ($\beta_{30} = 0.27$, $p < 0.05$) likewise process innovativeness significant positive effect to business competitive ($\beta_{31} = 0.49$, $p < 0.01$). Thus, hypotheses 5a, 5b are supported. According to Lee at all., (20013) organization innovativeness has received to be the key to securing a sustainable competitive in the marketplace. Next, model 6 market turbulence modulated the relationship organizational innovativeness: product innovativeness; process innovativeness and business competitiveness the results show that market turbulence does not moderate affect the relationship ($\beta_{38} = 0.08$, $p > 0.10$; $\beta_{39} = 0.15$, $p > 0.10$). Thus, hypotheses 6a, b are not supported. The result of this study is consistent to Tsai and Yang (2013) were found that positive relationship of firm innovativeness and business performance does not exist in the context of low market turbulence.

Table 5: Results from OLS regression analysisIII

Independent Variables	Model
BC	0.60*** (0.08)
Adjusted R ²	0.38

*** p <.01;

^aBeta coefficients with standard error is in parenthesis.

Table 5 present model 7 business competitiveness has a significant positive influence on the potential operation. Thus, hypotheses 7 is supported. ($\beta_{42} = 0.60$, $p < 0.01$). According to Baney (1991) indicated that if a firm can successfully prevent latent competitors from copying and simultaneously executing the same operating value and continues business operation, the firm can be considered as having competitive advantage, reach organizational goal and continuous growth in business.

Contributions

Theoretical Contribution

This research showed that knowledge management: knowledge transfer, and knowledge application are contributing the factor of product innovativeness, process innovativeness and potential operation. From this research, it can conclude that firm with knowledge transfer and knowledge application will improve business competitiveness thought organization innovativeness. Overall the finding conform to the literature resource-based view of the firm (RBV) (Wernefelt, 1984; Barney, 1991; Tsai and Yang, 2013) and knowledge-based view of the firm (KBV) (Grant, 1991; Hoskisson et al., 1999; Nonaka, 1994) as a basis for the competitive advantage.

Managerial Contribution

This research results have managerial implications for both practitioners and executive. The result and help managers understand the importance of knowledge management that makes firms meet organization innovativeness, business competitiveness and potential operation. The empirical result indicates that knowledge transfer, knowledge application can enhance the product innovativeness and process innovativeness, and potential operation. Therefore, an organization should pay attention to and emphasizing on knowledge transfer and knowledge application that are appropriate with the operational activities to attain success toward their goals.

Conclusion

This research is to test the relationships among knowledge management to organizational innovativeness, business competitiveness and potential operation via competitive intensity and market turbulence as a moderator. Data were collected from 104 managers of electric and electronics businesses in Thailand by using a questionnaire as the research instrument. This research has shown that the dimensions of knowledge management: knowledge transfer affect product innovativeness and knowledge application affect product, process innovativeness, and potential operation. While, competitive intensity and market turbulence not shown moderator effect.

Limitation and suggestion for future research

Although this research results have theoretical and managerial implications for researcher and executives, respectively, some a limiting factor in this study may be a sample size. While it was adequate to test a hypothesized effect, it may not have been adequate to detect the influence of the knowledge management process dimensions. A large sample size would offer more statistical power to detect relationships. Future research should continue to examine knowledge management with a new type of business such as hotel business. The second limitation of this research using of survey questionnaire it may lack of respondent awareness and response thus, future research may survey by field observations and interview with the full-time managers.

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Influencers of life insurance investments - an empirical evidence from Europe

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Keywords

European Union, Economic Growth, Investment Decisions, Insurance

Abstract

The main purpose of the study is to identify the economic, cultural and demographic determinants of life insurance consumption for 28 European countries. The study used panel data analysis techniques over the post financial crisis period 2009-2014 and considers many of the emerging Eastern European economies where there have been significant insurance sectors reforms recently. Europe is the largest insurance market with 35% of the overall insurance premium contribution but ranked third in insurance per capita in 2014, hence Europe is an interesting region to study the insurance demand. Among the explanatory variables assumed in the study, gross savings, inflation, GDP and openness of economy (economic variables), population (demographic variable), power distance, uncertainty avoidance, long term orientation and individualism (cultural variables) have been observed to have a significant impact on life insurance demand in the European region.

1. Introduction

Insurance is the nerve center of the financial services industry globally. The industry over the last decade has gone through a tremendous transformation due to globalization, deregulation and digitization. Insurance both (life and non-life) is primarily about managing risk. In case of life insurance, the insurer collects premiums from policy holders, invests the money in lower risk investments and reimburses the money back to the policy holder upon maturity or death.

Macroeconomic forces have a strong impact on the global insurance industry. According to report "World insurance in 2014: back to life" published by Swiss Re in 2014, the global real GDP rose by 2.7%, near to the 10-year annual growth rate average of 2.8% which led to an improvement in the economic environment for insurers. Global non-life premiums increased by 2.9% in 2014 to USD 2,124 billion, slightly higher than the 2.7% growth rate of 2013. For the life insurance sector there was a return to positive growth in 2014 with premiums up by 4.3% to USD 2,655 billion after a 1.8% decline in 2013. From a regional perspective the major growth drivers were Oceania, Western Europe and Japan which more than offset the contraction in the North American market. The emerging markets have been the growth engine for the life insurance premiums which improved to 6.9% from 3.6% in 2013 driven primarily by China. In other emerging regions such as Central and Eastern Europe (CEE) the premium growth generally slowed or even continued to decline. Benchmarking with the pre-crisis years the annual premium growth has been slower in the emerging markets. In comparison, the GDP of Austria and United Kingdom both are similar but the life insurance expenditure per capita of United Kingdom is more than three times that of Austria.

Development of insurance industry in Europe

Significant disparities exist in life insurance investments across regions. This has led researchers to believe that factors beyond macroeconomic forces exist, which determine the insurance spend in countries. Researchers worldwide have studied macroeconomic factors determining the investments in the insurance industry. Also looked into the role of national culture and demographics in determining the level of investments in the insurance industry.

What determines the demand for life insurance in the Emerging European region? With 35% of contribution to the global insurance premium Europe is the largest in the world followed by North America (29%) and Asia (27%). Insurance is a major contributor to the economic growth and

development of Europe. It is a key facilitator for economic transactions within Europe by providing risk transfer and indemnification. It also promotes financial stability by providing long-term investment in the economy and provides stable and sustainable savings and pension. The insurance sector is the largest institutional investor in Europe, with almost € 9,900bn of assets under management invested in the economy in 2014. This is equivalent to 63% of the GDP of the Europe.

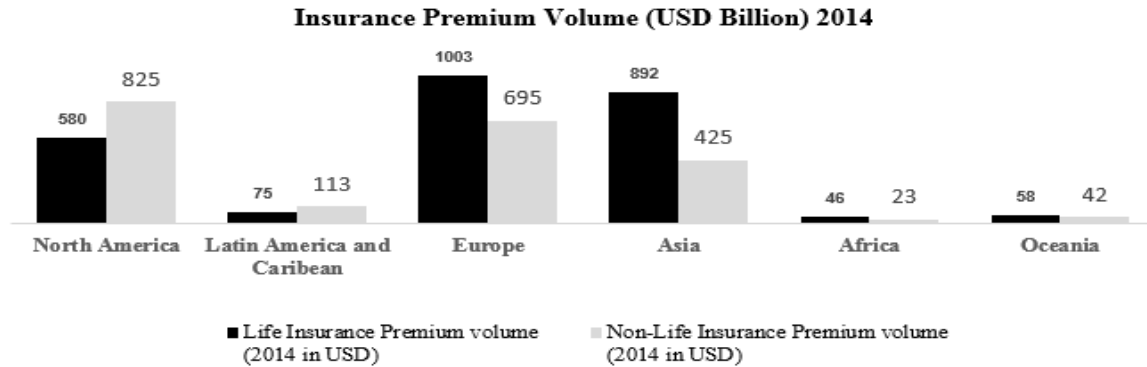


Figure 1: Insurance Premium Volume (USD Billion) in 2014

In 2014 life insurance premiums in Europe amounted to USD 1,002 billion an increase of 7.4% from 2013. Life insurance business contributed to 59.1% of the overall insurance business in 2014. United Kingdom with a premium volume of USD 235 million had the highest share in 2014 among the European countries at 23%, followed by France at 17%. United Kingdom was the third highest market in terms of life insurance premium globally top two markets being United States (USD 528 billion) and Japan (USD 371 billion). According to "Insurance Europe" the top five countries in Europe (United Kingdom, France, Italy, Germany and Ireland in terms of life insurance premium had a market share of 72% in Europe).

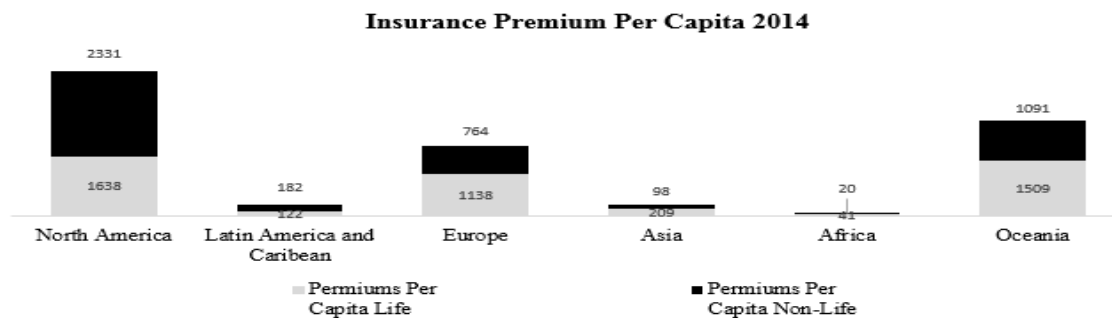


Figure 2: Insurance Premium per Capita 2014

Europe has the highest share of life insurance investments globally, though the life insurance density (premiums per capita) was the third highest in 2014. The premiums per capita for life insurance in Europe is USD 1138 which is less than North America (USD 1638) and Oceania (USD 1509)¹. Similarly, for the non-life insurance the premium per capita is 764 USD much lower than North America which is at USD 2331 and Oceania USD 1091. This provides further growth opportunities for companies operating in the region. There is significant disparity existing between the countries in Europe with (e.g. United Kingdom having a premium volume of USD 235 billion whereas Bulgaria has a premium volume of USD .20 billion which is less than an African country such as Algeria in 2014. Within the region there has been uneven growth with the emerging economies within the European sub-continent showing stagnant or decline in growth compared to more developed European economies. Around 4860 companies operate in the insurance sector in

Europe and employs over 1 million people directly. There are also around a million outsourced employees and independent intermediaries. Hence the insurance industry is a significant employer, both in terms of direct and indirect employment.

From prior literature review I observe no unique model exists in the economic theory which predicts the life insurance demand. There exist several models which were constructed and tested empirically. Limited literature exists on the impact of cultural factors on life insurance. Limited literature on cross sectional time lag country analysis for the insurance demand looking into both the Western European and Central and Eastern European countries. For the first time, the paper

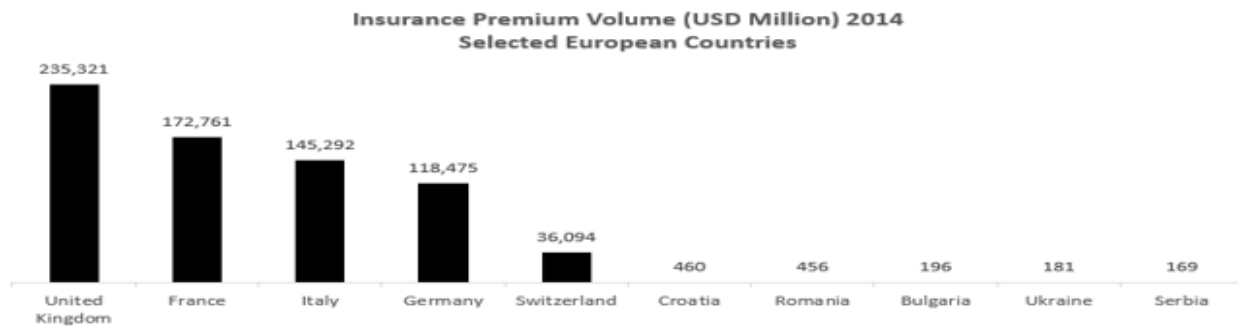


Figure 3: Insurance Premium Volume (USD Million) 2014 for top and bottom five European countries

introduces independent variables, such as the Global Competitiveness Index from World Economic Forum Global Competitiveness Report, Consumer Price Index in the econometric analysis on insurance consumption in Europe. For the first time, the post financial crisis period 2009-2014 in Europe is being analyzed through this paper. Thus, the paper aims to contribute to the existing literature by looking into these aspects. Additionally, by studying 28 countries from the European region the paper aims to investigate the key determinants (economic, demographic and cultural) which explains the life insurance demand in Europe and the sensitivity of the explanatory variables. The parameters identified in the study impacts life insurance demand and can be used further to develop prioritization frameworks for companies exploring opportunities in the region. Similarly, for policy makers the results identify the focus areas which needs to be strengthened to stimulate life insurance demand in the region. Results of the study provide insights for policy makers on economic factors to address in order to stimulate life insurance demand, and for investors to provide factors to consider for prioritizing markets.

The structure of the paper is as follows; section two focused on literature review. Section three outlines the variables used and the data specification of the empirical model and the various hypotheses assumed in the paper. In section four the theoretical model is presented, in section five results and key findings are presented, which is followed by the concluding remarks.

2. Literature Review

Factors impacting the investments in insurance industry has been a topic of research for many years in the financial literature. Earliest studies conducted in the area were performed by Yaari (1965), who was the first researcher to work out a theoretical background to explain the demand for life insurance. By developing a lifecycle utility model which deduced the optimal consumption and optimal savings plan of a consumer he demonstrated that an individual's increases their expected utility by buying insurance. Hammond et al. (1967) studied the impact of economic and demographic factors on the demand of life insurance using regression analysis. Neumann (1969) observed that inflation has no significant impact on life insurance consumption. Anderson and Nevin(1975) concluded that six independent variables; education, current household income, expected household income, net worth of household, husband's insurance before marriage and wife's insurance before marriage in explaining have a statistically significant impact on the levels of life insurance purchased. Burnett and Palmer (1984) studied the impact of demographic and psychographic

variables on demand of life insurance and concluded that the major demographic contributors were education, number of children and income; major psychographic variables were work ethic, fatalism, socialization preference, religion salience, and assertiveness.

Outreville (1996) performed a cross-sectional study of developing countries and presented empirical tests of the positive relationship between financial development and the development of the life insurance sector and provided empirical evidence of the negative effect of a monopolistic market on life insurance growth. Determinants of demand for life insurance in 68 economies was studied by using panel data by Beck and Webb (2003) for the period of 1961-2000 and observed that economic indicators such as income per capita, inflation, banking sector development and religious and institutional indicators are the most important variables in life insurance consumption; life expectancy, education, the young dependency ratio, and the size of the social security system do not affect it. Wang and Greenford (2005) studied insurance investment in three countries China, Hong Kong and Taiwan and observed that income, education and economic development have a positive effect on demand for life insurance. The one child policy and social structure have negative impact on life insurance consumption. Social security and price have no significant effect on life insurance demand. Li, Moshirian, Nguyen and Wee T (2007) studied life insurance consumption for the period between 1993 and 2000 using cross section data for 30 OECD countries and indicated that number of dependents, income, levels of financial development and education and degree of competition are positively related to life insurance demand.

Limited empirical studies exist on the impact of cultural factors on insurance consumption. Inclusion of cultural factors increases the predictive ability of the regression model on life insurance consumption by 13% was cited by Chui and Kwok (2008). Significant impact of cultural variables on non-life insurance consumption was found by Lemaire (2010). Blocking and bootstrapping statistical techniques Treerattanapun (2011) was used and significant impact of cultural factors was observed on non-life insurance consumption studying 82 countries across a 10-year period.

3. Research Hypothesis

The selection of the dependent variables requires some indicators which measures the development of the insurance industry in the selected European countries, with the independent variables between the demand determinants. The factors assumed have been divided into the following categories: insurance demand factors bring dependent variables and cultural factors, economic factors and demographic factors being independent variables.

Dependent Variables. Dependent variables assumed in the study are measures of the life insurance demand. It is assumed that insurance demand is impacted if any of the following variables have a significant relationship with the independent variables;

- I. **Premium volume:** Mantis and Farmer (1968), DePamphillis (1977), Diacon (1980), Browne and Kim (1983), Schwebler (1984), Babbel (1985), Beenstock, Dickinson and Khajuria (1986), Zhuo (1999), Lim and Haberman (2004), Ward and Zurbruegg (2002), concluded that the total insurance premium of a given country is a major indicator of the significance of insurance industry.
- II. **Insurance expenditure per capita (insurance density):** Beck and Webb (2003), Browne and Kim (1993), Outreville (1996), Zhuo (1999), Hwang and Greenford (2005), Truett and Truett (2005), have calculated insurance density by dividing direct gross premiums with the population and represent it as an average insurance spending per capita in a given region/country.
- III. **Insurance penetration:** hang and Nong (2005) studied that the ratio of direct gross premiums to GDP, indicate the relative importance of the insurance business in the given economy.

For the independent cultural variables in the study I have used Hofstede's five cultural dimensions:

- I. **Power Distance:** Expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally. The fundamental issue here is how a society handles inequalities among people. Studies suggest that the population of a high power distance country expects their political leaders to take sufficient actions to reduce their risk Chui and Kwok (2008). The observation is ambiguous as this also occurs in a low Power Distance country. In the current study I have assumed a positive and statistically significant relationship between power distance and demand for life insurance.
- II. **Individualism:** Defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families. Its opposite, collectivism, represents a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty. I have assumed in the study the more individualistic the society is, the greater will be the tendency to invest in insurance products as they are dependent less on their family members. Thus, a positive and statistically significant relationship between individualism and demand for life insurance.
- III. **Masculinity:** Represents a preference in society for achievement, heroism, assertiveness and material rewards for success. Societies which are more feministic tend to invest more in insurance as they are more caring and nurturing about the people around them Chui and Kwok (2008). Similarly, a contrasting view is more a society is masculine the greater will be the tendency of the individuals to have a control over their future and hence they would invest in insurance products more. In the current study I have assumed a positive and statistically significant relationship between masculinity and demand for life insurance.
- IV. **Uncertainty Avoidance:** Expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. Uncertainty avoidance is correlated to risk aversion, people who are risk averse are willing to take more risk if they are compensated to do so with a maximization of the utility function. People with a high degree of uncertainty avoidance prefer well defined predictable outcome. The impact of uncertainty avoidance hence is ambiguous Treerattanapun (2011). In the current study I have assumed a positive and statistically significant relationship between uncertainty avoidance and demand for life insurance.
- V. **Long term Orientation:** Societies which score low on this dimension prefer to maintain time honoured traditions and norms while viewing societal change with suspicion. Those with a culture which scores high, on the other hand, take a more pragmatic approach: they encourage thrift and efforts in modern education as a way to prepare for the future. Prior research shows a positive impact of long term orientation and life insurance demand Park, Lemaire and Chua (2010). In the current study I have assumed a positive and statistically significant relationship between Long Term Orientation and demand for life insurance.

For the independent economic variables in the study I have used the following indicators:

- i. **GDP:** Is an indicator of the level of economic development achieved in a country and also a possible proxy of the income levels in the country. In the study I have assumed it to have a positive impact on the insurance consumption. Prior studies which have included GDP are Beenstock, Dickinson and Khajuria (1986); Browne and Kim (1993) and Outreville (1996). In the current study I have assumed a positive and statistically significant relationship between GDP and demand for life insurance.
- ii. **Gross savings as % of GDP:** Calculated as gross national income less total consumption, plus net transfers is an indicator of the disposable income of the country. Prior research has not been able to establish any relationship between savings and demand of life insurance. Increased household assets due to greater savings may act as a household buffer and may

have a negative impact on the insurance demand Headen and Finley (1974). A positive influence of savings on life insurance demand exists Schwebler (1984) and Beck and Webb (2003). In the current study I have assumed a negative impact of the indicator on insurance consumption.

- iii. **Social Security Expenditure:** There are conflicting results on the impact of social expenditure on insurance demand. Some studies indicate that in countries with higher social expenditure spend there is a lesser need for citizens to spend on life insurance Yaari (1965) hence they are negatively correlated. Social security has little net effect on life insurance demand empirically Fitzgerald (1987). The study further investigates the relation between the two and assumes that the social security expenditure and insurance demand to be negatively correlated. In the current study I have assumed a negative and statistically significant relationship between social security expenditure and demand for life insurance.
- iv. **Inflation:** Some studies suggest that inflation negatively impact the demand for life insurance Hofflander and Duvall (1967), Babbel (1981); Beck and Webb (2003). Studies investigated the impact of inflation on life insurance consumption and found that inflation has no significant impact (Neumann, 1969). Since both hypothesis regarding the impact of inflation holds hence I have assumed decided to include it in the current study where I assume the inverse of Consumer Price Index (CPI) as an indicator of inflation. In the current study I have assumed a negative and statistically significant relationship between inflation and demand for life insurance.
- v. **Global Competitiveness Index:** An annual report published by World Economic Forum (WEF) which assesses the competitiveness landscape of 140 economies, providing insights into the drivers of their productivity and prosperity. The indicator has been assumed to study the openness of the economy which would lead to greater investments of the foreign insurance companies in the country and leading to modernization and marketization of the local economy. Using competitiveness as a parameter for measuring insurance demand has not been previously done in any study. The current study assumes the global competitiveness index score to have a positive impact on insurance consumption.

For the independent demographic variables in the study I have used the following indicators:

- i. **Population:** Size of the population is an indication of the addressable market for the insurance players in a country. Prior studies have used population as an indicator to determine insurance investment in a country/ region (Mantis and Farmer1968), (Schlag2003). In the current study I have assumed the impact of population on the demand of insurance to be positive.
- ii. **Education:** An individual's level of education determines the level of risk aversion Schlag (2003) leading to a higher probability of buying insurance Karni and Zilcha (1986), Pratt (1964) and Szpiro (1985) and showed through their studies that the higher the risk aversion of an individual higher is the amount insured. However, a negative relationship was proven by Anderson and Nevin (1975). A possible reason being with higher education level people tend to analyze their investments more critically and prefer to invest in other instruments of which provides higher returns on investment which typically a less educated person may not be aware of. In the current study I have assumed a positive and statistically significant relationship between education and demand for life insurance.
- iii. **Total Age Dependency Ratio:** The ratio of the total dependent young population and dependent old population to the working age population those between ages 15-64 have been assumed. The results of dependency ratio to insurance demand is inconclusive. Some studies Schlag (2003) indicate a positive relationship while others were inconclusive on the impact of total age dependency ratio. For the current study I assume a positive significant relationship between insurance demand and total age dependency.

- iv. **Life expectancy:** The factor is assumed for analyzing the demand of life insurance. Countries with higher life expectancy tend to have a lower demand for life insurance. Studies contradicted the above point of view and observed that life expectancy and life insurance demand are positively correlated because of the high savings element Beenstock, Dickinson and Khajuria (1986) and Outreville (1996). In the current study I have assumed is positive and statistically significant relationship between life expectancy and demand for life insurance

3. Data and Methodology

In order to counter the impact of endogeneity I follow the method of lagged variables whereby I assume any changes in the socio-economic conditions in a country will impact the insurance demand in a time difference. Hence to incorporate the time lag impact I have assumed the socio-economic 14 independent variables for the year 2009 and the dependent insurance demand variables for the year 2014. The values related to the cultural factors have been considered to be constant during the period with the assumption that national cultures are stable over time Hofstede (2003). Assuming the time period of the study from 2009-2014 also incorporates the development of the insurance industry post financial crisis which had a significant impact on the European economy. In the current study I have used the Swiss Re "World Insurance in 2014: back to life" report for insurance consumption data for 28 European countries. The report is published annually and provides a comprehensive coverage of the insurance consumption, market trends for 84 countries globally. I have used the cross section data for 16 countries from Western Europe and 12 countries from Central and Eastern Europe to ensure I do not have any regional bias.

In the study, I observe a fan-shaped relationship between life insurance premium volume and GDP and Population respectively which under the log-log transformation becomes more homoscedasticity. Though in the presence of homoscedasticity the estimators are unbiased, the standard errors will be underestimated thus the t-statistics will be inaccurate resulting in a possible wrong conclusion regarding the significance of explanatory variables. Therefore, the log-log transformation is employed Treerattanapun, (2011). Log-log transformations are assumed for GDP, inflation and population independent variables.

The following model is estimated with Ordinary Least Squares (OLS) to investigate the impact of the 14 independent variables on each of the three dependent variable. A multivariate regression analysis is performed for each of the equations below:

$$\begin{aligned} \log(LIPV) = & \beta_0 + \beta_1(PD) + \beta_2(IDV) + \beta_3(MASC) + \beta_4(UNCAVD) + \beta_5(LTO) + \beta_6 \log(GDP) \\ & + \beta_7(GROSSAV) + \beta_8(SOCIALEXP) + \beta_9 \log(INFL) + \beta_{10}(GCI) + \beta_{11} \log(POP) \\ & + \beta_{12}(EDU) + \beta_{13}(TADR) + \beta_{14}(LIFEEXP) + \varepsilon_t \end{aligned} \quad (a)$$

$$\begin{aligned} \log(LID) = & \beta_0 + \beta_1(PD) + \beta_2(IDV) + \beta_3(MASC) + \beta_4(UNCAVD) + \beta_5(LTO) + \beta_6 \log(GDP) \\ & + \beta_7(GROSSAV) + \beta_8(SOCIALEXP) + \beta_9 \log(INFL) + \beta_{10}(GCI) + \beta_{11} \log(POP) \\ & + \beta_{12}(EDU) + \beta_{13}(TADR) + \beta_{14}(LIFEEXP) + \varepsilon_t \end{aligned} \quad (b)$$

$$\begin{aligned} \log(LIP) = & \beta_0 + \beta_1(PD) + \beta_2(IDV) + \beta_3(MASC) + \beta_4(UNCAVD) + \beta_5(LTO) + \beta_6 \log(GDP) \\ & + \beta_7(GROSSAV) + \beta_8(SOCIALEXP) + \beta_9 \log(INFL) + \beta_{10}(GCI) + \beta_{11} \log(POP) \\ & + \beta_{12}(EDU) + \beta_{13}(TADR) + \beta_{14}(LIFEEXP) + \varepsilon_t \end{aligned} \quad (c)$$

LIPV: Life insurance premium volume (Source: "World insurance in 2014: back to life" published by Swiss Re)

LID: Life insurance density (Source: "World insurance in 2014: back to life" published by Swiss Re)

LIP: Life insurance penetration (Source: "World insurance in 2014: back to life" published by Swiss Re)

PD: Power Distance (Source: Hofstede's Cultural Dimensions)

IDV: Individualism (Source: Hofstede's Cultural Dimensions)

MASC: Masculinity (Source: Hofstede's Cultural Dimensions)

UNCAVD: Uncertainty Avoidance (Source: Hofstede's Cultural Dimensions)

LTO: Long Term Orientation (Source: Hofstede's Cultural Dimensions)

GDP: GDP (Source: World Bank Indicators)

GROSSSAV: Gross Savings as % of GDP (Source: World Bank Indicators)

SOCIALEXP: Expenditure for Social Insurance and Welfare to GDP Ratio (Source: OECD Social Expenditure Database)

INFL: Inflation Indicated by (1/Consumer Price Index) (Source: World Bank Indicators)

GCI: World Global Competitiveness Index (Source: World Economic Forum Competitiveness Index)

POP: Population (Source: World Bank Indicators)

EDU: Gross Enrolment Ratio, tertiary both Sexes (%) (Source: World Bank Indicators)

TADR: Total Age Dependency Ratio (% of working-age population) (Source: World Bank Indicators)

LIFEXP: life Expectancy (Source: World Bank Indicators)

4. Results and Discussions

TABLE 1. Determinants of the development of life insurance.

t-statistics are in brackets. *** Significance at 1%, ** significance at 5%, * significance at 10%.

Adjusted R² ranges from 90~95% indicating good-fit of regression.

	Premium Volume		Insurance Density		Insurance Penetration	
Power Distance	0.010 (1.083)		0.014 (1.903)	*	0.008 (1.118)	
Individualism	0.022 (2.081)	**	0.021 (2.431)	**	0.021 (2.615)	**
Masculinity/femininity	0.000 (0.022)		0.008 (1.519)		0.005 (0.916)	
Uncertainty avoidance	0.004 (0.416)		0.002 (0.234)		0.004 (0.624)	
Long-Term Orientation	0.022 2.090	**	0.028 3.279	***	0.020 2.560	**
GDP	2.420 (4.189)	***	1.582 (3.323)	***	0.275 (0.628)	
Gross savings (% of GDP)	-0.061 (-2.525)	**	-0.023 (-1.168)		-0.037 (-2.030)	**
Expenditure for social insurance and welfare to GDP ratio	0.049 (1.274)		0.038 (1.190)		0.025 (0.856)	
Inflation	-9.391 (-1.026)		-18.420 (-2.441)	**	-25.152 (-3.627)	***
Global Competitiveness Index	1.083 (2.177)	**	1.251 (3.051)	***	0.833 (2.211)	**

Population	1.590 (2.944)	***	1.637 (3.678)	***	0.313 (0.764)
Education	-0.017 (-2.200)	**	-0.000 (-0.012)		0.002 (0.293)
Age dependency ratio (% of working-age population)	-0.023 (-0.512)		0.024 (0.637)		0.026 (0.774)
Life expectancy	0.040 (-0.470)		0.041 (0.583)		-0.001 (-0.017)
R²	0.972		0.980		0.953
Adjusted R²	0.941		0.957		0.903
Number of Observations	28		28		28

Economic Variables

Life insurance demand shows a significant positive relationship with GDP which is consistent with the observations of Beenstock, Dickinson and Khajuria (1986); Browne and Kim (1993); Outreville (1996). Higher GDP is an indicator of higher wage and higher levels of economic activity within the country which has a positive impact on the insurance demand. Insurance premium volume has a significant negative relationship with Gross savings (%) of GDP which is consistent with the observations of Headen and Finley (1974). Observation supports the theory that the higher savings achieved acts as a buffer in case of need hence reducing the significance for investments in life insurance. Inflation has a high significant negative impact on both insurance density and insurance penetration. The observations are consistent with Babbel (1981) and Outreville (1996) and Çelik and Mustafa (2009). Studies explain that inflation with constraining regulations can lead to higher perceived real costs of life insurance Babbel (1981). So, life insurance demand decreases in inflationary periods. With increasing debt problems post financial crisis many of the European countries had higher inflation rates which impacted insurance demand. Life insurance demand shows a significant positive relationship with Global Competitiveness Index which is an indicator of the openness of an economy and the ability to attract investments. Countries which have a more competitive environment attract more insurance companies to operate and have higher levels of insurance demand. Social expenditure variable did not show any significant relationship with insurance demand which is consistent with the observation of Fitzgerald (1987).

Demographic Variables

Both life insurance premium volume and life insurance density have a positive significant relationship with population which is consistent with the observations of Mantis and Farmer (1968), Schlag (2003). Countries with higher GDP and population have a larger addressable market for insurance companies to target. Both dependency ratio and education did not show any significant relationship and their impact was inconclusive in the study as has been the case in prior studies. This contradicts the hypothesis that there is a positive and statistically significant relationship between education and demand for life insurance.

Cultural Variables

The relationship between the cultural factors and the life insurance demand and presents interesting observations. For Power Distance there is no significant relationship across all of the insurance demand parameters for the selected countries. Countries with high levels of individualism score have higher insurance demand across all the demand parameters (volume, density and penetration). The more the society is individualistic the more will be the tendency of individuals to

protect themselves through a life insurance cover hence the insurance demand will be higher. In a collectivist society there is greater dependence among the members of the families/societies and hence the dependence on insurance protection is lesser. Long term orientation positively impacts the insurance demand which is in-line to prior research done in the field by Park, Lemaire and Chua (2010). The greater a society is long term oriented higher will be the propensity of the society to invest in long term life insurance products. This would positively impact the sales of the life insurance products in a long term oriented society. No significant relationship exists between masculinity and uncertainty avoidance variables.

5. Conclusions

The study extends the literature on insurance demand determinants by investigating a larger number of countries focused in Europe and includes cultural, economic and demographic parameters (total 14 independent variables) in the study.

For life insurance in the European countries GDP positively impacts insurance volume and density and competitiveness of the countries positively impacts all the insurance demand parameters. On the contrary the inflation impacts negatively the insurance density and insurance volume while gross savings negatively impacts the insurance volume and penetration. These observations have an important implication for companies exploring investment opportunities in the region. When prioritizing markets in which to invest, it is essential to study the trend of the parameters identified as significant. The companies looking to build on market entry strategies for the Central and Eastern European countries can look at the significant economic indicators.

In case of demographic parameters, the population impacts positively the insurance volume and insurance density while education impacts negatively the insurance volume. For cultural factors individualism and long term orientation impacts positively all insurance parameters. Many of the observations are in line with the prior studies conducted in the field.

Many of the selected economies especially the ones in Central and Eastern Europe have undergone changes, particularly in regulatory reforms recently. The current study provides information on the determinants of insurance demand in the region. The current study limits itself to a macro level analysis of the insurance demand. Further detailed analysis can be performed on individual life insurance products which may result in more reliable findings. Future studies can further segregate the region into developed and developing economies and conduct a detailed time series analysis and incorporate both pre-crisis and post-crisis period. Culture which has been assumed to be constant may be an over simplification, socio-economic conditions may result in cultural changes hence it may not be static. Future studies can factor the dynamic nature of national culture.

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The influence of information security technostress on the job satisfaction of employees

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Keywords

Information Security, Technical Security, Techno-Stress, Job Satisfaction

Abstract

Information security is an important activity which is vital for corporate or organizational activities. However, focusing only on the strengthening for the performance of information security may act as a factor increasing the techno-stress the members of the organization feel.

This study inquired into the impacts of information security techno-stress on individual job satisfaction and empirically verified the relationship between information security techno-stress and individual job satisfaction, preceding factors and results, regarding how to use information security effectively.

The results of the analysis, the strengthening of information security caused techno-stress, and the information security techno-stress had negative impacts on individual job satisfaction. As security is inclined to technical countermeasures, security technology is further strengthened, and accordingly, the techno-stress of the members of the organization increases, while on the other hand, individual job efficiency decreases, which is judged that this will have negative impacts on the personal performance in the organization.

1. Introduction

For a long time, corporate have pursued various methods to prevent and cope against the information leakage, continuing the enforcement of security continuously. The information security achievements have enhanced, but the stress during carrying out the tasks by the workers is increasing much further. Such stress is referred to as information security technostress, and the information security technostress of the organization members may face the serious problem of deterring the productivity of tasks.

Information is a fundamental factor in the strategies and achievement of goals of corporate and organizations. Corporations are enforcing information security to protect important intellectual property and to prevent security accidents, such as leakage of personal information. On the other hand, as the managerial, technological, and physical security is enforced within the corporate, the roles of information security is being enlarged, and due to responsibilities and duties that must be kept while carrying out tasks, stress is increasing.

As additional managerial tasks increase due to information security, from the frequent application of security technology and various directions, the amount of work is increasing, causing considerable stress to the workers. The organization must thus study the methods to cope against the stress of the members to maintain not only the job efficiency but effectiveness, and make considerations to alter this to a constructive direction (Park and Im, 2012).

This research has the research topic of the process of information security affecting the job satisfaction of the members, and especially identifies the influence of technological security of information security to technostress to analyze whether it is connected to the job satisfaction. Also, exactly which factors influence the job productivity of the members is to be identified as well. Based on the identified research result, the implications are deducted, and solutions to alleviate technostress in the future are to be suggested. In other words, by decreasing the drawbacks, and composing a solution to emphasize the strengths, solutions to process the information security technostress in the method of processing the tasks of the organization members in the most effective and efficient way are to be suggest

2. Theoretical Background

2.1 Technostress

To quote the definition of stress by Ayyagari et al., (2001), “stress occurs when the individuals are carrying out various responsibilities that have the possibility of conflicting, or when experiencing inadequacy in the difficulties or complexities of the current tasks (Tarafdar et al., 2007)”, and it is mentioned that such failures often cause physical illness, fatigue, absence and switching jobs, and lead to the mental disorder that may deter the achievement of tasks.

Technostress is occurring in situation the organization members may not have the skills and competencies needed in the organization are performing their tasks. Technostress can be defined as individual adaptation of the reaction to stimulants when excessive psychological and physical demands are given. (Park and Im, 2012).

The development of the information communication technology is granting the existing corporations with much opportunity. However, new problems are occurring in intellectual, psychological, physical or social aspects. Therefore, in management of the corporation effectively, technostress is becoming a barrier (Park and Im, 2012).

Tarafdar et al. (2007) measured the items causing technostress and identified that the causes of these technostress have significant influence on the job productivity and role stress. There are various causes of technostress suggested in the existing research, but generally, the most general causes of stress are the following suggested by Tarafdar et al. (2007): Techno-overload, techno-invasion, techno-complexity, techno-insecurity and techno-uncertainty. First of all, techno-overload is the burden felt when individuals need to carry out tasks more fast and more tasks. Secondly, techno-invasion refers to the circumstance of creating the environment in which the individuals are able to work anytime, making the workers be overly focused in work. Thirdly, techno-complexity refers to the circumstance in which, with the introduction of new technology, due to the gap between the technological development and the abilities of individuals, the various learning, and time and effort for understanding are pressurized. Fourthly, techno-insecurity refers to the anxiety of losing jobs due to being threatened to be replaced by the new technology. Fifthly, techno-uncertainty refers to the circumstance of being agitated and uncertain due to the continuous changes and development of the security technology. When the five causes are recognized, positive or negative effects may be caused in job achievements.

2.2 Information Security

Information security is composed of the 3 aspects of technological, physical and managerial control. As managerial security, there are the existence of the information protection policy, creation of information protection organization and allotment of related responsibilities, identification and categorization of important assets, management of recruiting, hiring and retiring workers, and continuous plans for the continuous services of core tasks in cases of crisis and regular inspections and checks in case of physical controls. In technological control, there are the management of the computers and the networks, system access control, system development and the control of maintenance, and as physical control, there are preservation and management of the computer room and equipment (Jeong and Jeong, 2011).

Table1. Definition of Information Security Activities

Information Security Activity	Detailed Definition
Managerial Security	<ul style="list-style-type: none"> Existence of the information protection policy, creation of information protection organization and allotment of related responsibilities, identification and categorization of important assets, management of recruiting, hiring and retiring workers, and continuous plans for the

	continuous services of core tasks in cases of crisis and regular inspections and checks in case of physical controls
Technological Security	▪Management of the computers and the networks, system access control, system development and the control of maintenance
Physical Security	▪Preservation and management of the computer room and equipment

2.3. Technological Security

Many corporations are enforcing technological control for correct information security recognition and action. Through this, the technological stress of the organization members would become greater. Among the alternatives for information security, the technological security is being relied upon. This is because though the costs are high, it is a technological alternative in the fast and convenient method (Park and Im, 2012)

Information security recognizes that the responsibility of security is on the individuals and emphasizes the technological security to the organization members. However, as the actions and responsibilities on the technological security is conveyed in addition to the existing task responsibilities, and the stress felt by the organization members is not limited to the tasks, but is extended to technological stress as well (Park and Im, 2012). Therefore, the following hypothesis may be constructed.

H1.1) The enforcement of information security (technological security) will have positive (+) influence on the task overload.

H1.2) The enforcement of information security (technological security) will have positive (+) influence on the invasion of privacy.

H1.3) The enforcement of information security (technological security) will have positive (+) influence on the complexity of tasks.

H1.4) The enforcement of information security (technological security) will have positive (+) influence on the instability of tasks.

H1.5) The enforcement of information security (technological security) will have positive (+) influence on the uncertainty of tasks.

The technological security of information technology must be provided effectively in long-term perspectives. However, the companies may anticipate negative influence on the job satisfaction of individuals when the technological security is operated continuously. Therefore, the following hypothesis may be composed.

H2) The enforcement of information security (technological security) will have negative (=) influence on the job satisfaction of individuals.

2.4 The job satisfaction of individuals

The achievement of the organization and the achievement of the individual are not separate. They have major implications for each other, and to cause the achievement of the organization, the work productivity of the individuals is essential. Therefore, the work productivity of individuals is linked to the job satisfaction, maximizing the work productivity, and such achievement of individuals cause the achievement of the organization. Therefore, if the technostress influences the job satisfaction of individuals, the achievement of the organization may be influenced as well. Here, the job satisfaction of the individual being influenced by the information security technostress is researched.

The corporate must introduce information security technology, and the organization members have no choice but to follow this decision. Among the information security technology, the technological security refers to the activity of the corporations' network and internal system access

rights and the activity of adhering to them, and is an activity of close relationship with tasks. In this case, as the organization members must adjust to the information security technology, they feel objection against the information security technology.

Technostress may deter the job satisfaction of individuals as the 5 following conditions caused by the application of information security technology are applied.

First of all, due to work overload, the managers communicate more information necessary, and have the tendency of receiving more information than the amount that they are able to process and use efficiently. As it is possible, they feel pressurized to acquire information security technology and to process them. Thus, they must input more time and effort into information security technology. At the same time, they cannot check whether the information security technology is actually useful, and this causes dissatisfaction on the information security technology that they are using. Invasion of privacy makes them feel that they are never freed from the information security technology, or that they are always under surveillance, or that they are always waiting, and that their space has been invaded. This causes dissatisfaction on the information security technology that they use. The complexity of task means that the users must leave out other organizational tasks and input much time and effort to acquire and learn the information security technology. The most of the users, in the process of discovering the complexity of the information security technology and the variety of the functions, do not understand the actual usage or why they must use the technology.

The anxiety in work makes the users feel burdened when they have not coped appropriately to work process or the necessity of education related to the new and changed information security technology. The workers, even if the information security technology that they have recently learned or have been used is exterminated, must learn new technology and manipulation regularly. The necessity of continuous acquisition of information security technology leads to the dissatisfaction of users. Uncertainty in work causes burden on the security leakage by individuals. Also, through security leakage, they feel the nervousness that they may be disadvantaged or fired.

The organization members experiencing a high degree of technostress have the possibility of lowered of productivity, may cause accidents related to tasks, may have frequent absences or tardiness, or may even switch jobs. In other words, technostress may deter not only the job satisfaction of individuals but the achievement of the organization (Sankar and Natale, 1990). Technostress may be caused from the enforcement of information security, and the responsibilities of the individuals may be deterred to influence productivity negatively. Therefore, the next hypotheses are suggested.

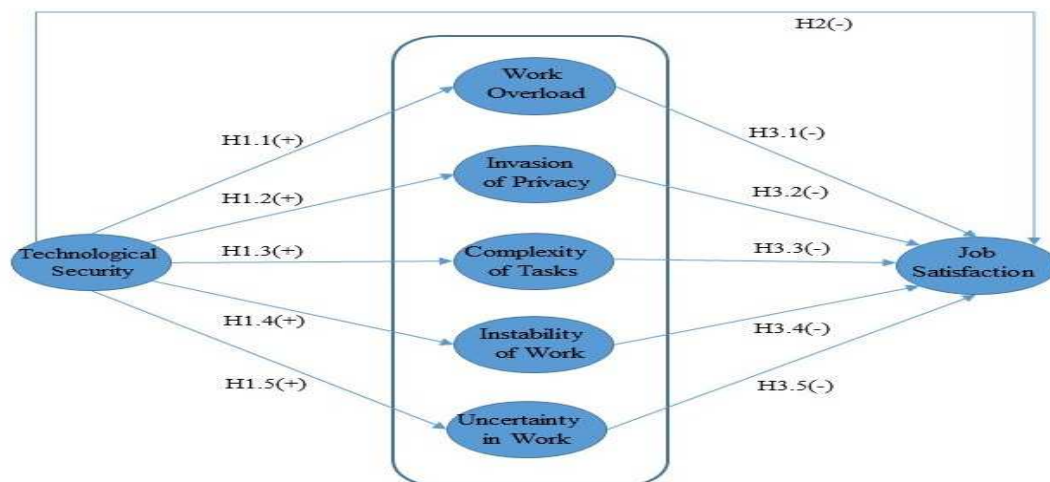


Figure1. Research Model

- H3.1) Work overload will have negative (-) influence on the job satisfaction of individuals.
 H3.2) Invasion of privacy will have negative (-) influence on the job satisfaction of individuals.
 H3.3) Complexity of tasks will have negative (-) influence on the job satisfaction of individuals.
 H3.4) Instability of work will have negative (-) influence on the job satisfaction of individuals.
 H3.5) Uncertainty in work will have negative (-) influence on the job satisfaction of individuals.

To suggest a research model centered on the literature review and the hypothesis, it is as Figure 1.

3. Analysis

3.1 Data collection

The survey was conducted in the method of actually visiting the surveyed corporations to explain the reasons of the survey, and by retrieving the written surveys, and was conducted on the workers and managers of corporations utilizing technological security. The demographic analysis result of the answerers is as Table2.

Table2. Demographic Analysis Result

Category		Frequency	Answer Proportion (%)
Gender	Male	90	61.2%
	Female	57	38.8%
Age	20s	33	22.4%
	30s	66	44.9%
	40s	44	29.9%
	50s	4	2.7%
Education	High School Graduate	5	3.4%
	College Graduate	32	21.8%
	University Graduate	92	62.6%
	Masters	17	11.6%
	Ph.D	1	0.7%
Corporation Name	A Corporation	40	27.2%
	B Corporation	28	19.0%
	C Corporation	28	19.0%
	D Corporation	24	16.3%
	E Corporation	11	7.5%
	F Corporation	9	6.1%
	Others	7	4.8%
Position	Executive	2	1.4%
	Department Head	12	8.2%
	Department Deputy Head	19	12.9%
	Section Chief	42	28.6%
	Deputy Section Chief	18	12.2%
	Worker	54	36.7%

3.2 Measurement Result

The model applied in this research, as a measurement model mixing the reflective indicator and formative indicator, as for the reflective indicator, the internal reliability of the each measured variables forming a potential variable must be secured (Wasko and Faraj, 2005), and in case of formative indicators, additional verification of reliability is not required, (Kim, 2012). Reliability refers to gaining integrated answer when measuring the same concept repeatedly with equal or similar measuring tools (Wasko and Faraj, 2005). The reliability of the reflective indicator

measurement model may be evaluated by the factor load, Cronbach's alpha, CR(Composite Reliability) or AVE (Average Variance Extracted) and other various methods.

The Cronbach's alpha value and CR may be secured of reliability by each potential variables when the 0.7 or higher (Fornell and Larcker, 1981), and 0.5 or higher for AVE (Chin et al., 1997; Fornell and Larcker, 1981). Also, the reliability is secured when the factor load of each items is 0.6 or higher, but for ideal research, it must be 0.7 or higher (Chin, 1998).

In this research, Cronbach's alpha, CR, and AVE were used to measure the reliability of the variables, but as suggested in Table 3, the reliability of some Cronbach's alpha is weak, yet the variables of reflective indicators included in this research has secured reliability.

Table3.The reliability of Each Variable

Variable	Composite Reliability	Cronbachs Alpha	AVE
Technological security(techno_security)	0.859	0.800	0.552
Complexity of work(stress_complexity)	0.948	0.930	0.783
Anxiety in work (stress_insecurity)	0.762	0.620	0.528
Invasion of privacy (stress_invasion)	0.845	0.758	0.578
Work overload (stress_overload)	0.929	0.908	0.685
Uncertainty in work (stress_uncertainty)	0.772	0.562	0.531
Job satisfaction (satisfaction)	0.924	0.905	0.604
Required value	$\alpha > 0.7$	CR > 0.7	AVE > 0.5

The intensity or the validity of the measured model may be evaluated by measuring the convergent validity. As for the reflecting indicators, the convergent validity refers to the extent of convergence of the items measuring the equal potential variables and the items measuring other potential variables, and means that there is a high correlation between the same concepts measured in different methods. The convergent validity is secured when the AVE value of each variable is 0.5 or higher, or when the factor load of the respectively measured items or 0.7 or higher and statistically significant, and lastly, when the reliability of each variable is 0.8 or higher (Fornell and Larcker, 1981). In the measured model of this research, the AVE value of all variable is 0.5 or higher, and the factor load of variable excluding e29, f34 and f35 is 0.7 or higher and statistically significant. Therefore, the convergent validity of each variable excluding e29, f34, and f35 may be evaluated to have been secured. The factor load of the measured items of the reflective indicator is as Table4.

Table4.The factor load of the measured items of reflective indicator

	techno_se curity	stress_ov erload	stress_inv asion	stress_co mplexity	stress_ins ecurity	stress_un certainty	satisfactio n
a4	0.848	0.382	0.332	0.306	0.347	0.071	0.176
a5	0.725	0.193	0.271	0.267	0.185	0.067	0.191
a6	0.747	0.152	0.197	0.241	0.145	-0.176	0.071
a8	0.785	0.310	0.214	0.264	0.341	-0.108	0.096
b13	0.223	0.761	0.455	0.357	0.464	0.235	0.272
b14	0.270	0.801	0.541	0.638	0.556	0.337	0.445
b15	0.409	0.837	0.593	0.578	0.554	0.233	0.383
b16	0.222	0.849	0.487	0.513	0.550	0.188	0.414
b17	0.146	0.849	0.533	0.544	0.538	0.225	0.405
b18	0.416	0.863	0.598	0.582	0.605	0.196	0.421

c19	0.275	0.508	0.833	0.460	0.414	0.219	0.331
c21	0.311	0.636	0.775	0.768	0.624	0.364	0.456
c22	0.208	0.404	0.830	0.515	0.463	0.289	0.350
d23	0.256	0.469	0.685	0.810	0.575	0.347	0.511
d24	0.341	0.600	0.667	0.896	0.679	0.340	0.533
d25	0.319	0.586	0.633	0.923	0.708	0.386	0.586
d26	0.366	0.665	0.676	0.885	0.769	0.352	0.542
d27	0.262	0.590	0.624	0.908	0.700	0.366	0.621
e28	0.373	0.654	0.656	0.784	0.951	0.276	0.553
e29	0.129	0.381	0.286	0.405	0.659	0.222	0.243
f34	-0.009	0.310	0.374	0.371	0.420	0.688	0.329
f35	-0.042	0.075	0.195	0.244	0.055	0.679	0.227
f36	-0.021	0.201	0.222	0.262	0.144	0.810	0.359
g37	0.070	0.371	0.341	0.539	0.477	0.285	0.782
g38	0.121	0.396	0.392	0.485	0.480	0.357	0.838
g40	0.180	0.380	0.440	0.553	0.434	0.311	0.851
g41	0.097	0.311	0.323	0.468	0.361	0.411	0.819
g42	0.158	0.456	0.458	0.562	0.450	0.453	0.865
g43	0.237	0.428	0.386	0.506	0.429	0.299	0.778

4. Analysis Result

As the reliability and the validity of the measured model of the research has been secured, PLS analysis was conducted to verify the relationship among each concepts suggested in the research model. In PLS analysis, the model utilizes the same method for the reflective indicator model and the formative indicator model. It may be evaluated with the size of the path coefficients, and by dependent variables, sign, t-value and the leading variables, and the analysis results of the model of this research model is as Figure 2.

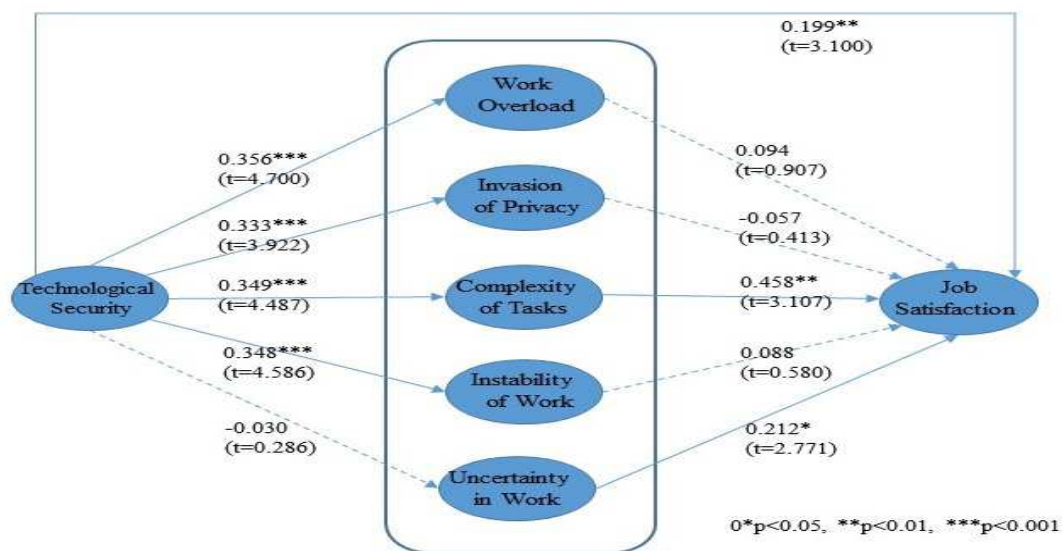


Figure2. Research Model

Among the 11 hypothesis, 7 hypotheses were statistically significant.

- H1.1) The enforcement of technological security will have positive (+) influence on the work overload.
- H1.2) The enforcement of technological security will have positive (+) influence on the invasion of privacy.
- H1.3) The enforcement of technological security will have positive (+) influence on the complexity of work.
- H1.4) The enforcement of technological security will have positive (+) influence on the instability of work.
- H1.5) The enforcement of technological security will have positive (+) influence on the uncertainty of work.

The hypothesis that enforcement of technological security of information technology was statistically significant in work overload (path coefficient: 0.356, $t=4.700$), invasion of privacy (path coefficient: 0.333, $t=3.922$), complexity of work (path coefficient: 0.349, $t=4.487$), instability of work (path coefficient: 0.348, $t=4.586$) in the significance level of 0.001, and through each path coefficient, the technostress is influenced the most. On the other hand, the hypothesis that the enforcement of technological security of information security (path coefficient: -0.30, $t=0.286$) did not have statistically significant results.

H2) The enforcement of technological security will have negative (-) influence on the job satisfaction of individuals. The hypothesis that the technological enforcement of information security will have influence on the job satisfaction of individuals (path coefficient: 0.199, $t=3.110$) was statistically significant on the significance level of 0.01, and means that the enforcement of technological security of information security on the job satisfaction of individuals negatively.

- H3.1) Work overload will have negative (-) influence on the job satisfaction of individuals.
- H3.2) Invasion of privacy will have negative (-) influence on the job satisfaction of individuals.
- H3.3) Complexity of work will have negative (-) influence on the job satisfaction of individuals.
- H3.4) Anxiety in work will have negative (-) influence on the job satisfaction of individuals.
- H3.5) Uncertainty in work will have negative (-) influence on the job satisfaction of individuals.

The hypothesis that the complexity of work will have negative influence in the job satisfaction of individuals (path coefficient: 0.458, $t=3.107$) in the job satisfaction of individuals was statistically significant in the significance level of 0.01, and the hypothesis that complexity of work will have negative influence on the job satisfaction of individuals (path coefficient: 0.458, $t=3.107$) was statistically significant on the significance level of 0.01, and the hypothesis that uncertainty of work will have negative influence on the job satisfaction of individuals (path coefficient: 0.212, $t=2.771$) had significant results on the convenience level of 0.05. However, the hypothesis that work overload (path coefficient: 0.094, $t=0.907$), invasion of privacy (path coefficient: -0.057, $t=0.413$), and uncertainty in work (path coefficient: -0.057, $t=0.413$) did not have statistically significant results. The results of validation of hypothesis is as Table 4.

5. Conclusion

This research has validated the influence on the task satisfaction of individuals by technostress. Through the prior research that the causes of technostress directly influence the achievement of the organization (Im and Han, 2013) and the prior theoretical basis that technological stress influences information security (Park and Im, 2012), research model was designed to identify how information security directly influences the job satisfaction of individuals.

Though research based on information security was made, there were no research identifying the relationship of work satisfaction of individuals by identifying the characteristic of information security. The analysis was made for the technological security among the 3 activities of information

security, and by identifying technostress into five types according to factor, research model was designed, and the research result is as follows.

First of all, it was identified that the technological security of information security had positive (+) influence on the technostress. However, among the influences of technological security on technostress, the uncertainty of work, the burden about security leakage was not selected.

Secondly, it was verified that the technological security if information security had negative (=) influence on the job satisfaction of individuals. In enforcing the technological security or introducing new systems, the new systems are not generalized but causes stress, and this means that through the technological complement of the information security, negative influence may be exercised on the job satisfaction of individuals.

Thirdly, it was verified that technostress has negative(-) influence on the job satisfaction of individuals. Organization members experiencing a high degree of technostress may have negative influence on job satisfaction, and it seems that the burden of the complexity of security technology has negative influence on the job satisfaction. However, work overload, invasion of privacy, and unstable work were not selected.

In summing up the analysis result, the enforcement of information security causes technostress, and negative influence is exercised on the job satisfaction of individuals due to information security techno stress, and this is because as the security is focused on the technological alternatives, the security technology is enforced, and the technostress of the organization members are increased, and the efficiency of individuals is deterred.

In the above results, the organization must establish specific means to reduce the technostress felt by the organization members, and to carry them out within the overall organization. By introducing or applying new security technology, the factors that may influence the work productivity of the organization members and the circumstance must be considered to make enhancements.

This research has the following limitations. First, because the variables measured by the survey methodological limitations are likely to have perceived the error implied answers of the respondents. Secondly, this research was conducted for the organization utilizing information security, and there are organizations introducing information security that the cognition on the information security stress by the organization members may be low. Thirdly, in this research, the demographic characteristics and the characteristics of the members were not considered, and various variables such as the cultural difference of the organizations and the environment of usage were not considered. The environment including the characteristic and culture of individuals has reciprocity with the environment (Bandura, 1997). In consideration of the various variables, more specific results on the information security technostress on the job satisfaction of individuals would be able to be deducted. Lastly, this research conducted analysis with the information security as the focus, and if the accumulation of influence and change of achievement or each organization member, the overall analysis on the information security and usage would be possible. Thus, by analyzing how the relationship of the dependent variables shifts according to the changes of the independent variable, more in-depth research results may be anticipated.

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How to increase FDI flows: a demonstration of the new determinant creation theory for Mexico and Chile

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Foreign direct investment, determinants, public policy, Mexico, Chile.

Abstract

In today's world, Mexico and Chile are nations with growing economic development. Both have different and interesting histories leading to that growth and have had to design in recent years, public policies which contribute to the accumulation of capital. One of the principal sources of capital is the attraction of foreign direct investment – which, starting with its normative aspect – and proceeding to the attraction of investment flows, have had to be modified lately. According to the theory of the creation of new determinants, the probability of improving some determinants will contribute to an increase in attracting foreign direct investment flows to the receiving state.

This research demonstrates that once the theory mentioned above has been applied to Mexico and Chile, the results shows that both nations attracted more FDI flows. For the case of Mexico, the skilled labor as well as low cost labor, tax incentives and natural resources contributed to get more inflows and for the case of Chile, inflows increased because it offers tax incentives, a better legal framework and an industrial policy focus on FDI to international investors. It is also remarkable that in both cases, they use regularly other determinants to attract FDI such as infrastructure, gross domestic product, geographical location, and the like.

1. Introduction

In recent years, FDI has grown faster than trade flows and global production for various reasons such as political and economic changes in many developing countries. Those changes are characterized by the shift to democratic political systems as well as changes toward economic and legal systems oriented in the direction of trade liberalization in which Mexico and other countries played an important role since 1986 when signed as a GATT member.

Many developing countries have made economic and structural changes in order to obtain some benefits and attract FDI, in that sense, FDI flows are likely to be attracted to developing economies that pursue an outward-oriented strategy of economic development such as Mexico and Chile.

In Latin America, the relative stability of the region and the adoption of outward-oriented public policies have reassured foreign and local investors based on market reforms (Ramírez, 2001). Because of such liberalization and changes, the FDI increased in developing countries in the 1990's (Erdal and Tatoglu, 2002) and particularly, Latin America has shown a sustainable growth since 2010 (CEPAL, 2013).

In Mexico, President Miguel de la Madrid (1982-1988) and Carlos Salinas (1988-1994) initiated the neoliberal reforms. Since 1993, the FDI became an important source of private capitals outflows and inflows for Mexico as well as for many countries around the world. From that year, Mexico's public policy oriented to FDI flows uptake changed since a new foreign investment law was created. The new law expressed the need to encourage domestic and foreign productive investment within the country. Later on, in 2007 the PROMEXICO federal office was open for the purpose of attracting

investment flows through different strategies like working together with the 32 states to make them attractive to foreign capitals.

As for the case of Chile, it began to liberalize its foreign investment regulations in 1974 when Pinochet promulgated Decree Law 600. In 2002, the Chilean government launched an Investment Platform initiative to attract international corporations by tax-exemption but, there are, however, some regional incentives for isolated geographical zones and to the information technology sector. Institutional offices like CORFO, has implemented the “Chile Invest” plan with an important mission on attracting capitals from abroad.

On the other hand, the attractiveness of a state or a city for foreign direct investment flows depends on the number and kind of determinants they possess.

Deichmann *et al.* (2003) found that some factors determining the spatial decisions of multinational firms in a Middle East country depend on policy implications.

Considering the above, the government agenda should focus on making the country more attractive for FDI, especially in times of crisis when traditional determinants are put to the test and inspire proposals for new opportunities.

Popovici (2012) notes that the idea of entering a new era of determinants of FDI is not new as there are several studies that highlight the key factors for attracting FDI. This emphasizes that the classical theories of FDI probably should be changed and others should be based on the emergence of new local capacities.

This research is divided as follows. In second part, a literature review is offered. Several research papers were analyzed to describe the key factors for attracting FDI considering classical theories in order to compare them with the determinants used by Mexico and Chile during 2000 to 2013. Section three includes the data and variables used to explain the new determinant creation theory; based on the Mexican case where the most relevant determinants used to obtain FDI are infrastructure, skilled labor, low labor cost, security, tax-break, natural resources, gross domestic product, legal system, geographical location and industrial policy. Descriptive statistics are presented in section four as well as a probit model to test the theory in section five. Finally, conclusions are discussed in section six.

2. Literature review

Most of the literature related to the attraction of FDI by countries is based on different theories such as localization economies and their determinants, trade and resource endowments. In that sense, the eclectic paradigm of Dunning (1988) argues that the path FDI takes is partly due to the specific advantages which one country has, because of its regional geographic location and / or location in the world. These advantages arise from using resource endowments and / or assets held abroad by some countries in the world which are attractive to a company by combining them with its own resources.

That combination suggests that if a foreign company wants to use the resources of a country, it should establish a subsidiary by initiating a flow of FDI and then establish a start-up operating facility (Hill, 2008) but, the risk is a main determinant that has to be considered. As for the case of some nations in Latin America like Chile and Mexico, the recently inward flows demonstrate that multinational companies consider these two nations as reliable markets to invest in.

Likewise, the theory of international production suggests that the decision of a company to start manufacturing operations in other countries depend on certain attractions that the country of origin of the company has compared to the resources and benefits that it will obtain in locating a manufacturing subsidiary abroad (Morgan and Katsikeas, 1997).

According to the CEPAL (2011), most of investments made in Latin America have a significant impact on the consolidation or diversification of the production profiles, particularly as foreign direct investment has a major impact on host economies, roughly measure the relationship between foreign direct investment and gross domestic product.

In 2012, Chile received flows equivalent to 11.3% of its gross domestic product mostly for mining while in Mexico; natural resources and low labor cost industries were not the main destiny.

The theory of trade and resource endowment explains that FDI is directed toward countries with low wages and abundant natural resources that provide inherent differences of opportunity and initial favorable conditions for businesses.

There is a consensus about the characteristics required for a host country to attract FDI which is that it depends on the motivations that foreign investors have in relation to their investment projects. According to Dunning (1983), the first reason is related to the market, whose main purpose is to serve local and regional markets from the FDI host country if the market grows and generate some return for the investor, the second relates to the investment made by a company in acquiring resources that are not available in the country of origin such as natural resources and low-cost inputs including labor. The latter corresponds to the level of efficiency achieved through the dispersion of value chain activities considering that the geographical proximity to the country of origin will minimize transportation costs.

All this suggests that the direction, in which FDI is aimed, is highly related to the comparative advantages (Kinoshita, 2003) of a given country. Then, one country that has, among other determinants, access to markets as well as cheap labor and abundant natural resources will attract larger inflows of FDI.

Berkoz (2009) argues that countries have traditional factors and environmental variables that are attractive to foreign companies. The traditional factors are market potential, labor costs, economic growth and government policies. The environmental variables correspond to political, economic, legal and infrastructural factors.

Kinoshita (2003) in turn, maintains that the most important determinants a country has to attract FDI are government institutions, natural resources and economies of agglomeration. Government institutions are one factor contributing to decisions by investors as to whether to invest or not in a particular country because these institutions directly affect the operating conditions of enterprises. The investment cost for companies is not only economic but they also have to fight against entrenched practices in countries such as bribery and time lost in engaging in diverse and various negotiations resulting from the arrival of the company to a new market. Therefore, for the operating conditions of a company to appear reliable to the investor, there are two institutional variables to be considered: The legal system and the quality of the bureaucracy. As for the legal system, both its impartiality as well as popular perception of it is good determinants of the reliability of legal institutions in the country.

Likewise, the variable related to the quality of the bureaucracy describes a non-political and professional bureaucracy which in turn facilitates the procedures for staff to be hired. With respect to agglomeration economies, investors seek those markets where there are benefits derived from the concentration of economic units which results in positive externalities (benefits and technological spill, use of skilled labor and concentrated in specific locations and links forward and backward with related industries) but also by investments made by other investors which can be seen as a positive sign of favorable investment conditions reducing uncertainty. As for the natural resources, Rasiah (2000) argues that developing economies with a resource-rich endowment obtains FDI.

Other studies describing the FDI determinants indicate that the infrastructure, good governance, taxes (Rasiah, 2000) and the labor market are conditions that governments must maintain (Bellak, et. al., 2010) but Lim (1983) found a negative relationship between investment incentives and FDI in 27 developing countries.

De los Santos (2014) suggests that the system of incentives offered by one nation cannot significantly fall out of line from the incentives provided by other nations that compete with one another for the worldwide flows of FDI.

Government policy can also enhance the attractiveness of FDI flows by ensuring the adequate provision of economic and social infrastructure in the form of paved roads, ports, airfields, relatively cheap energy supplies and a well-educated work force. Those quasi-public goods are used by the private sector from Mexico and Chile to serve themselves for their operations (Ramirez, 2001).

Groh and Wich (2009) describe the determinants to attract FDI in a country as labor costs, quality and the provision of quality infrastructure and legal systems. On the other hand, some authors consider that the provision of infrastructure should be a precondition for companies to establish subsidiaries in foreign markets as are a major emphasis on the provision of transport infrastructure as well as information and communication technologies (Botric and Skuflic, 2006, Goodspeed, et. al., 2009).

Studies by Wei *et al.* (1999), Mariotti and Piscitello (1995), Broadman and Sun (1997) and He (2002) conclude that there is a positive relationship between infrastructure and FDI because the better the infrastructure is in a location the higher its desirability. Rasiah (2000), states out that FDI in developing countries is concentrated in economies endowed with good infrastructure.

In a recent research conducted by Botello and Davila (2013), concluded that public policy used in some states of Mexico to attract FDI, is based on the attractiveness of some determinants like skilled labor, cheap labor and infrastructure.

As opposed to what Botello and Davila (2013) concluded, Ondrich and Wasylenko (1993) and Rasiah (2000) found that there is no evidence that wages affect the location of new foreign plants, specially cheap labor but that it's not the case for skilled labor. Flexible production forms have given rise to greater dispersal of organizational power as well as process innovation; local accumulation at peripheral sites has stimulated economic progress, albeit only in locations generating the requisite skills (Rasiah, 2000), suggesting that specialized FDI requires skilled labor. In the same way, Mendoza (2011) found that manufacturing companies established with foreign economic resources in Mexico demands skilled labor.

Despite the Chilean government public policy to attract FDI, it is a fact that flows in 80's and 90's were primarily confined to mining and traditional industries where the country has a comparative advantage on low unit cost labor and natural resources while in Mexico the manufacturing sector was the great winner although the maquiladora is a low cost industry. This means that Mexico started a few years ago a well development plan focused on green field investments with a strong multinational participation.

According to the research studies mentioned above, there are similarities in the description of the traditional determinants, which explain the attractiveness of a country with respect to foreign capital which suggests that the design of public policy in some countries like Mexico and Chile, in relation to attracting financial resources from abroad, is very similar. In the case of Mexico, the statistics of attracting FDI for the period covering 2000 to 2013 show that relationship. In fact, the 32 Mexico's states reports for 2000 to 2013 showed that the most common used determinants for attracting FDI are infrastructure, skilled labor, cheap labor, industrial policy, natural resources, gross domestic product, the legal system, geographic location, tax break and security. Berkoz (2009) found almost the same determinants for the case of Turkey and suggests that a location analysis needs to be done in order to develop specific growth strategies to be applied by policy-makers in their plans to attract FDI to certain locations.

Figuroa (2012) assumes that tax facilities, proximity to markets, and cheap labor are insufficient factors to guarantee the cycle of capital, since what stands out is the outgoing transfer of the innovation activity itself, which suggests that the attraction of new FDI flows requires the creation of new determinants or the renewal of the most used. The advance of global knowledge has become itself as an attractive determinant to catch the attention of investors. In recent years, many countries around the world are worried about the way they are going to attract capitals.

Perhaps, their research agenda would change to more focused analyses of the fundamental determinants that drive such flows of FDI (De los Santos, 2014). Should they create new determinants or renew the ones that are already used to?

As for the case of Mexico and Chile, an FDI behavior from 2000 to 2013 is described in section 5.

3. Objectives, Variables, Hypotheses and Data

3.1 Objectives

The objective of this research is to compare the behavior of inflows in Mexico and Chile from 2000 to 2013 after applying the new determinant creation theory.

3.2 Variables

The dependent variable used in this research is:

3.2.1 fdi (amount of foreign direct investment). Foreign Direct Investment (FDI) has been selected as a dependent variable relative to the amount of Mexico's and Chile's foreign direct investment inflows from 2000 to 2013.

3.2.2 impde (improvement of determinants). This variable was selected as a dependent variable to use it in the *probit* model in order to explain if the probability of improvement of the determinants used to attract foreign direct investment contributed to increase inflows from 2000 to 2013 by Mexico and Chile.

The independent variables in their different modalities that will be considered for the theoretical model are:

3.2.3 ifra (infrastructure). This variable explains if infrastructure was used as a determinant to attract foreign direct investment from 2000 to 2013 by Mexico and Chile. Infrastructure is considered as paved roads (km) and airports (number).

3.2.4 qualab (qualified labor). This variable explains if skilled labor was used as a determinant to attract foreign direct investment from 2000 to 2013 by Mexico and Chile. This variable was measured by the number of professionals that every State has in the two countries.

3.2.5 wage (minimum wage). This variable explains if low cost labor was used as a determinant to attract foreign direct investment from 2000 to 2013 by Mexico and Chile.

3.2.6 sec (security). This variable explains if security was used as a determinant to attract foreign direct investment from 2000 to 2013 by Mexico and Chile.

3.2.7 taxex (exemption from tax payment). This variable explains if exemption from tax payment was used as a determinant to attract foreign direct investment from 2000 to 2013 by Mexico and Chile. Some Mexican States offer in their annual reports tax payment exemptions for international investors as well as some Chilean provinces.

3.2.8 natures (natural resources). This variable explains if natural resources were used as a determinant to attract foreign direct investment from 2000 to 2013 by Mexico and Chile. Some Mexican States offer in their annual reports natural resources to be used by international firms as well as Chile.

3.2.9 gnp (gross national product). This variable explains if gross national product was used as a determinant to attract foreign direct investment from 2000 to 2013 by Mexico and Chile. A few Mexican states offer as an argument to attract capital from abroad that they have well-developed industries as well as Chile but with different sectors like Mexico.

3.2.10 legal (legal framework). This variable explains if a legal framework was used as a determinant to attract foreign direct investment from 2000 to 2013 by Mexico and Chile

3.2.11 geoloc (geographical location). This variable explains if geographical location was used as a determinant to attract foreign direct investment from 2000 to 2013 by Mexico and Chile.

3.2.12 indpol (industrial policy). This variable explains if a foreign direct investment industrial policy was used as a determinant to attract foreign direct investment from 2000 to 2013 by Mexico and Chile.

3.3 Hypotheses

For main model is:

H₁: The attraction of foreign direct investment in Mexico and Chile depend on infrastructure development, on skilled labor, on low cost labor, on security, on tax exemption, on natural resources, on gross national product, on legal framework, on geographical location and industrial policy from 2000 to 2013.

For Probit model representing the most efficient variables:

H₂: The probability of improving infrastructure, skilled labor, low cost labor, security, tax exemption, natural resources, gross national product, legal framework, geographical location and industrial policy will attract more foreign direct investment flows.

3.4 Data

Four hundred and sixteen yearly state reports were reviewed by the authors to build a database for the case of Mexico in this research. These reports were accumulated by the government of each state of Mexico. The authors found in those reports that the determinants used to attract foreign direct investment by the 32 states during 2000 and 2013 were skilled labor, cheap labor, tax exemption, legal framework, security, natural resources, infrastructure, gross national product by state, industrial policy and geographical location which according to different authors, are the most common used around the world despite that it is not clear if the determinants are new or renewal for countries. The same data was collected for the Chilean case through information provided by the embassy located in Mexico City as well as official web pages. A second database was also built to make the comparison but also a panel data analysis.

4. Descriptive statistics

In this section, authors show the most relevant descriptive statistics for this research.

First, we present in Table 4.1 some relevant statistics about the FDI inflows from 2001 until 2012 for the Mexican case.

Table 4.1

Period	Mean	Std. Dev.	Min	Max	Total
2001	950	3,917	-46	22,283	30,053
2002	742	2,892	-17	16,413	24,040
2003	593	2,018	-12	11,442	18,893
2004	790	2,594	-2	14,492	25,140
2005	760	2,355	-532	12,514	24,890
2006	630	1,739	-110	9,717	21,026
2007	937	2,826	-54	15,993	32,409
2008	864	2,401	-25	13,613	28,937
2009	523	1,511	-56	8,426	17,890
2010	702	1,613	-53	7,417	26,369
2011	619	2,067	-17	11,802	23,746
2012	403	586	-1	2,693	20,306
Total	709	2,322	-532	22,283	293,700

As we can see, the most important average of inflows was in 2001 (see table 4.1 and figure 4.1), equally for the maximum amount for the FDI (see figure 4.2), however the biggest amount of inflows was in 2007 (see table 4.1 and figure 4.3). In the following figures we want to show graphically the trend of the FDI flows in Mexico during the same period.

Figure 4.1

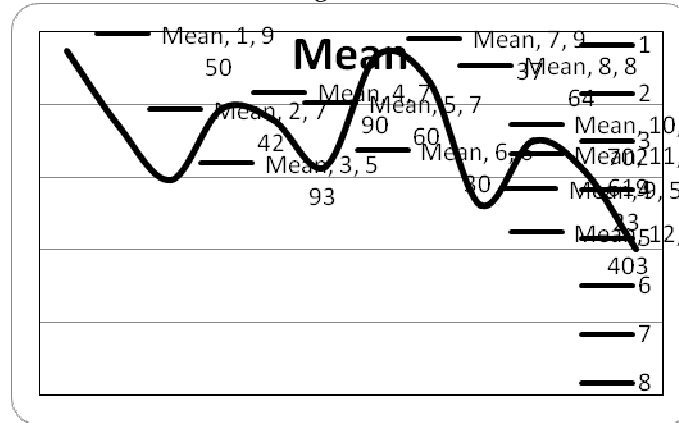


Figure 4.2

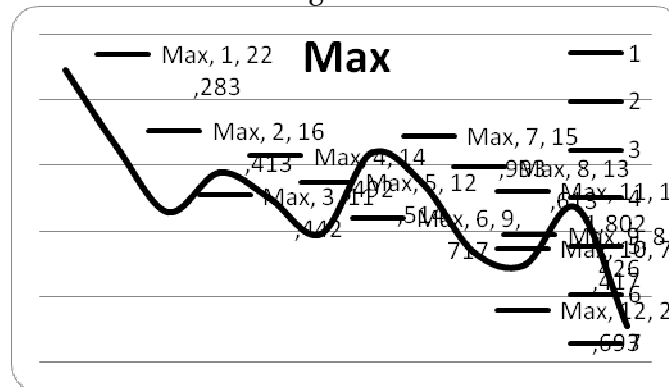
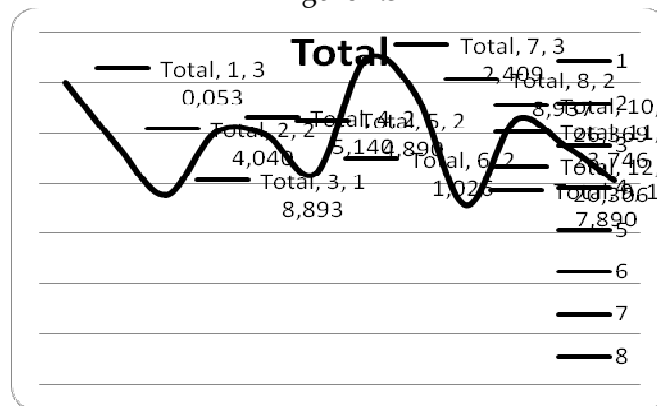


Figure 4.3



As shown above, Mexico's FDI flows were very volatile, there are years in which the FDI grows and there are years in which FDI downs. Besides the trend, it seems going down year by year.

In table 4.2 we also show some relevant statistics for the Chilean case considering the same period of time.

Table 4.2

Period	Mean	Std. Dev.	Min	Max	Total
2001	162,217	369,025	0	1,081,110	6,060
2002	186,573	405,702	0	1,494,584	5,035
2003	49,230	81,425	113	263,447	2,674
2004	66,365	89,219	0	267,072	6,755
2005	81,413	164,008	0	494,674	3,929
2006	103,408	198,222	0	673,170	5,945
2007	42,109	62,501	0	203,229	7,413
2008	218,670	450,359	0	1,518,799	12,157
2009	156,076	269,943	0	965,779	11,154
2010	72,320	205,077	0	800,318	11,764
2011	169,071	436,952	0	1,595,217	13,790
2012	0	0	0	0	30,323
Total	108,954	157,236	0	1,595,217	116,999

As we can see in Table 4.2, the most important average amount of inflows was in 2008 (see table 4.2 and figure 4.4), meanwhile in 2011 Chile reached the maximum amount for the FDI (see table 4.2 and figure 4.5), however the biggest amount of inflows was in 2012 (see figure 4.6). In the following figures we want to show graphically the trend of the FDI flows in Chile.

Figure 4.4

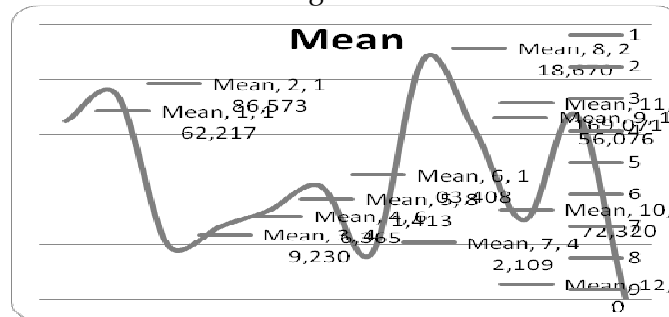


Figure 4.5

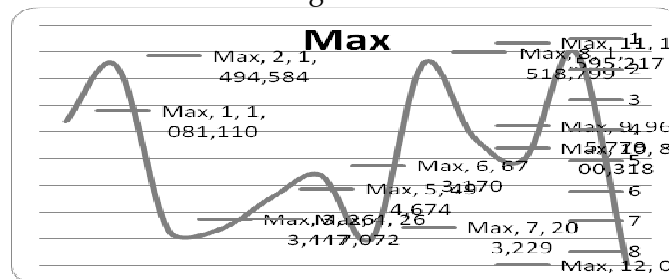
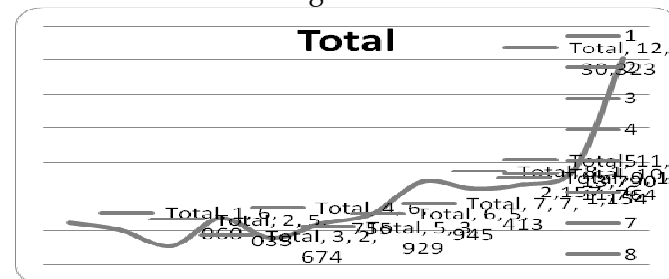
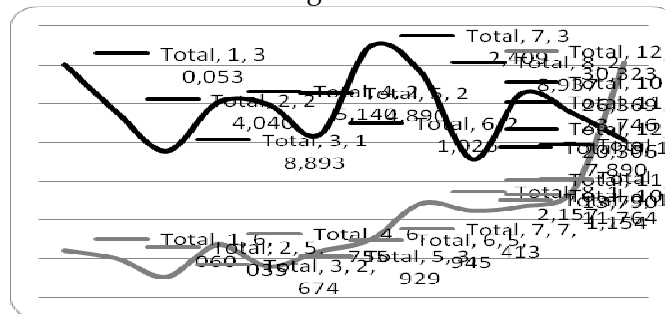


Figure 4.6



If we see this figures, the mean and the maximum are very similar to Mexico, but for the total amount of FDI flows looks like very impressive its upward trend.

Figure 4.7



In Figure 4.7, authors offer a comparisson between the total amount of inflows for Mexico and Chile and we see that the amount for Chile is lower than Mexico, however, since 2007 Chile had and impressive increase in the FDI flows, meanwhile in Mexico the trend decreased since 2009 but it is more difficult to have a sustainable trend when capturing important amount of flows.

5. Methodology, Models and Results

5.1 Methodology

It is important to state out that the same hypotheses were used for Mexico and Chile, however to test them, were carried out several models of time series data, the results for these models indicate the nature of each of the variables used, and the relationship they have with the dependent variable and its statistical significance.

Once we have variables that will be employed in a probit model originally used by Bliss (1934) as well as applied to stochastic models by Steinbrecher and Shaw (2008) it was necessary to check and simulate the dependent variable (*impde*), which was developed as the probability that there is an improvement in the determinants that each one of the Mexican and Chilean states/provinces raised in their public policies and in their development plans, related to foreign direct investment flows. The probit model tested the hypotheses and the main objective of this research.

The probit model was used to propose a new theory of attraction of foreign direct investment based on the creation of new determinants or renewal thereof as part of the public policy of the countries. The database developed for this study contains data on the determinants used by each of the states of Mexico and Chile for a period of thirteen years. During those years, there are states that do not use the ten determinants commonly used to attract foreign direct investment or there are states that decide to improve the determinants and previously used by the states. In any of these circumstances apply to the proposal of the new theory.

5.2 Models

The following equations are the proposal models to prove the hypotheses postulated earlier:

For Mexico,

Main model is:

$$fdi_t = \beta_0 + \beta_1 ifra_t + \beta_2 qualab_t + \beta_3 wage_t + \beta_4 sec_t + \beta_5 taxex_t + \beta_6 natures_t + \beta_7 gnp_t + \beta_8 legal_t + \beta_9 geoloc_t + \beta_{10} indpol_t + u_t$$

For the main model we have the following equation for efficiency:

$$fdi_t = \beta_0 + \beta_1 qualab_t + \beta_2 wage_t + \beta_3 taxex_t + \beta_4 natures_t + \beta_5 gnp_t + u_t$$

The Probit model for Mexico using the variables for the efficient model is:

$$P(impde_t) = \beta_0 + \beta_1 qualab_t + \beta_2 wage_t + \beta_3 taxex_t + \beta_4 natures_t + u_t$$

For Chile,

Main model is:

$$fdi_t = \beta_0 + \beta_1 ifra_t + \beta_2 qualab_t + \beta_3 wage_t + \beta_4 sec_t + \beta_5 taxex_t + \beta_6 natures_t + \beta_7 gnp_t + \beta_8 legal_t + \beta_9 geoloc_t + \beta_{10} indpol_t + u_t$$

For the main model we have the following equation for efficiency:

$$fdi_t = \beta_0 + \beta_1 ifra_t + \beta_2 qualab_t + \beta_3 wage_t + \beta_4 sec_t + \beta_5 gnp_t + \beta_6 geoloc_t + u_t$$

The Probit model for Chile using the variables for the efficient model is:

$$P(tmpds_t) = \beta_0 + \beta_1 taxex_t + \beta_2 legal_t + \beta_3 indpol_t + u_t$$

5.3 Results

As the models described before were handled through time series, we verified that the variables have a stationary stochastic process. The variables presented a nonstationary process so, the models are not useful to find reliable results by the method of ordinary least squares (OLS), in accordance with Engle and Granger (1987) that conducted a cointegration study. Then, we made a linear combination of two series, each of which is integrated of any kind of order, additionally checked and corrected the errors through the Granger causality (Granger, 1969 and Granger and Newbold, 1974) to verify that indeed the time series used are stationary, the following model show this test and in the Table A1 for Mexico and in the Table A6 for Chile show the results for them:

$$fdi_t = \delta_0 + \alpha_1 fdi_{t-1} + \alpha_2 fdi_{t-2} + \alpha_3 fdi_{t-3} + \alpha_4 fdi_{t-4} + \gamma_1 ifra_{t-1} + \gamma_2 ifra_{t-2} + u_t$$

In addition, was revised collinearity of the variables through a model of vector autoregressive (VAR), where it was found that indeed the variables presented a high collinearity and that has to be corrected for the stationary variables; besides that, we use the Wald test (Wald, 1940) to prove if the model has an asymptotic chi-square distribution. The model was as follows and in Table A2 for Mexico and in Table A7 for Chile show the results for them:

$$fdi_t = \delta_0 + \alpha_1 fdi_{t-1} + u_t$$

Once we have corrected the errors that could be present in the time series, and we are sure that the variables shown a Stationary Stochastic Process we proceeded to find the corresponding relations with each of the proposed variables as determinants for foreign direct investment flows that have been submitted in Mexico by 2001 to 2012.

The interaction of all independent variables in the Main model is shown with respect to the dependent variable in Table A3 for Mexico and Table A8 for Chile. Here, we had to analyze the model separately. First, in the case of Mexico as we can see in Table A3, there are variables with poor significance, so, with the general-to-specific method we dropped the following variables *ifra*, *sec*, *legal*, *geoloc* and *indpol*. It was expected that all the variables were significant but, the independent variables corresponding to infrastructure, security, legal system, geographic localization and for industrial policy, were not. Secondly, for the case of Chile we show the econometrical results in Table A8. The variables we dropped were *taxex*, *natures*, *legal*, and *indpol* corresponding to Tax exemption, natural resources, legal system and for industrial policy, respectively.

Subsequently, we build some more efficient models with a great significance in each of them that we show in Table A4 for Mexico and in Table A9 for Chile.

Once interactions were tested using linear regressions, a simulation using the *probit* model was done. The results showed that the probability of an improvement in the determinants increased flows of foreign direct investment. The presented results correspond to Mexico in Table A5 and for Chile in Table A10, and we only use the most efficient variables to demonstrate the theory. When we tested the probit model for each country, it had a good response for the most efficient variables shown in the model earlier.

6. Conclusions

The theories proposed by several authors to explain how countries attract FDI are diverse. Some of them are based on the use of different determinants as part of its public policy. In this sense, during the 2001-2012 period, Mexico used ten determinants in common for each of the 32 states to attract foreign direct investment, however, the main model with efficiency demonstrated that the most important determinants used by Mexico to attract FDI were skilled labor, low cost labor, tax exemption, natural resources and gross national product.

We found out that the other determinants apparently were less important but they do have a great significance. For example, the safety-related determinant was found not to be significant as part of its public policy because it is now known that Mexico is facing serious security problems and cannot use that determinant in attracting foreign direct investment. On the other hand, Mexico is also considered as a three-zone divided nation (Northern, Centre and Southern) that have differences among them. The North and Centre zones are well connected with infrastructure such as paved roads, ports, airports but it is not the case of the south zone.

On the other hand, it is well-known in international markets that Mexico has an enormous free trade agreement network that has been used in the last decades to attract FDI with a combination of industrial policy and geographical location and they have become part of the firm's decisions when going abroad.

There are positive relations between the rest of the determinants and the dependent variable which is coherent with the literature review.

Since the period studied is twelve years, it was observed that some states of Mexico during that period decided to create or renew their determinants in order to attract more and new flows of foreign direct investment. In that sense, the purpose of this article was to test the new determinant creation theory proposed by Botello and Davila (2015) as part of the public policy of the 32 state governments and the probit model demonstrates that relationship.

The case of Chile is very interesting because it shows that is currently using six determinants proposed by the authors to attract FDI. The use of infrastructure, skilled labor, low labor cost, security, gross national product and geographical location are the most relevant of the tenth to attract inflows. Reports from CEPAL (2013) indicate that Chile is the only nation in Latin America that is capturing more inflows related to its gross national product. The mining sector still continues to be one the most relevant sector to attract FDI specially because low cost labor but on the other hand we found out that there are another zones that are focused on attract international firms that need skilled labor. The term security means that Chile is a safe country where investors can trust in.

The comparison that was made between the two countries demonstrated that they are using at least three of the same determinants to attract FDI but with a different focalization strategy in their public policy. For example, Chile uses low cost labor for mining while Mexico uses it for "maquiladora" sector. We can assume that this depend on the use of natural resources for Chile and; proximity and NAFTA for Mexico.

As a last idea, if any government in the world is interested in attracting new or more foreign direct investment must create or renovate the determinants used to attract investment flows. There are probably cities or provinces who want to attract resources for certain types of industry but they must create or renew the related determinants, such that the different types of industry prevailing in a country use different determinants and some of them they shall not be used to attract new resources and should focus on the development of new determinants.

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Appendix

Table A1. Econometric results for the Vector Autorregresive (VAR) models, to prove collineality (Mexico).

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
fdi					

L1	0.508729	0.052105	9.76	0.000	0.4066052	0.6108529
L2	0.3263268	0.0534649	6.1	0.000	0.2215375	0.4311161
qualab						
L1	30.23529	1652.03	0.02	0.985	-3207.684	3268.154
L2	73.59285	1657.667	0.04	0.965	-3175.375	3322.56
wage						
L1	118.0432	1308.728	0.09	0.928	-2447.016	2683.102
L2	-90.3526	1324.556	-0.07	0.946	-2686.434	2505.729
taxex						
L1	-4.16302	357.4516	-0.01	0.991	-704.7553	696.4293
L2	94.46906	355.3705	0.27	0.790	-602.0444	790.9825
natures						
L1	-89.96946	513.2468	-0.18	0.861	-1095.915	915.9758
L2	-68.92927	526.3356	-0.13	0.896	-1100.528	962.6696
gnp						
L1	39.08159	530.368	0.07	0.941	-1000.421	1078.584
L2	137.0884	535.216	0.26	0.798	-911.9157	1186.092
_cons	34.15935	162.6493	0.21	0.834	-284.6275	352.9462

Table A2. Econometric results to find the Granger causality Wald tests (Mexico).

Equation	Excluded	chi2	df	Prob> chi2
fdi	qualab	0.27296	2	0.872
fdi	wage	0.03027	2	0.985
fdi	taxex	0.31046	2	0.856
fdi	natures	0.87606	2	0.645
fdi	gnp	0.71715	2	0.699
fdi	ALL	2.8653	10	0.984

Table A3. Econometric results to prove the Main model (Mexico).

fdi	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
ifra	-340.6887	471.7757	-0.72	0.471	-1269.61 588.2331
qualab	1398.227	454.5108	3.08	0.002	503.2996 2293.154
wage	1415.295	367.7762	3.85	0.000	691.1473 2139.443
sec	-83.17773	345.2768	-0.24	0.81	-763.0245 596.669
taxex	976.0842	338.4365	2.88	0.004	309.7059 1642.463
natures	-1931.841	317.8878	-6.08	0.000	-2557.759 -1305.923
gnp	888.0013	419.6766	2.12	0.035	61.66194 1714.341
legal	852.9122	396.8614	2.15	0.033	71.49596 1634.328
geoloc	-267.715	497.5836	-0.54	0.591	-1247.452 712.0225
indpol	-736.166	549.2051	-1.34	0.181	-1817.546 345.2135
_cons	347.5979	629.5481	0.55	0.581	-891.9764 1587.172

Table A4. Econometric results for the efficiency for the Main model (Mexico).

fdi	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
qualab	1202.727	387.9903	3.1	0.002	438.8434	1966.611
wage	1230.081	352.4779	3.49	0.001	536.1149	1924.047
taxex	945.1029	319.7686	2.96	0.003	315.5355	1574.67
natures	-1835.417	306.8978	-5.98	0.000	-2439.645	-1231.19
gnp	1031.067	389.8551	2.64	0.009	263.5119	1798.623
_cons	-125.1932	317.7903	-0.39	0.694	-750.8657	500.4793

Table A5. Econometric results for the probit model (Mexico).

impde	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
qualab	2.221216	0.3491229	6.36	0.000	1.536947	2.905484
wage	1.165196	0.3128022	3.73	0.000	0.5521149	1.778277
taxex	1.243878	0.2587321	4.81	0.000	0.7367728	1.750984
natures	1.947812	0.2923151	6.66	0.000	1.374885	2.520739
_cons	-2.06253	0.3380848	-6.1	0.000	-2.725164	-1.399896

Table A6. Econometric results for the Vector Autorregresive (VAR) models, to prove collineality (Chile).

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
fdi						
L1	0.0452078	0.0909708	0.5	0.619	-0.1330918	0.2235074
L2	0.2116691	0.097692	2.17	0.030	0.0201963	0.4031419
ifra						
L1	-140521.3	285761.6	-0.49	0.623	-700603.8	419561.1
L2	35017.72	307217.7	0.11	0.909	-567117.9	637153.4
qualab						
L1	-57566.71	490302.1	-0.12	0.907	-1018541	903407.8
L2	-173939	489935.2	-0.36	0.723	-1134194	786316.5
wage						
L1	-23703.95	308734.1	-0.08	0.939	-628811.6	581403.7
L2	-27868.51	309538.9	-0.09	0.928	-634553.6	578816.5
sec						
L1	51169.65	139161.1	0.37	0.713	-221581	323920.3
L2	84133.8	138932.4	0.61	0.545	-188168.7	356436.4
gnp						
L1	1509.544	189543.6	0.01	0.994	-369989	373008.1
L2	88217.98	191585.1	0.46	0.645	-287282	463717.9
geoloc						
L1	465049.5	281293.4	1.65	0.098	-86275.45	1016374
L2	-679104.5	279923.9	-2.43	0.015	-1227745	-130463.8
_cons	448189.9	169845.1	2.64	0.008	115299.7	781080.2

Table A7. Econometric results for find the Granger causality Wald tests (Chile).

Equation	Excluded	chi2	df	Prob> chi2
fdi	ifra	0.76602	2	0.682
fdi	qualab	7.1837	2	0.028
fdi	wage	0.55204	2	0.759
fdi	sec	5.713	2	0.057
fdi	gnp	1.3134	2	0.519
fdi	geoloc	12.46	2	0.002
fdi	ALL	2.8653	12	0.984

Table A8. Econometric results to prove the Main model (Chile).

fdi	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ifra	-275976.2	151734.3	-1.82	0.071	-576208.3	24256.03
qualab	-359871.5	70963.9	-5.07	0.000	-500285.7	-219457.3
wage	-114422.6	76357.41	-1.5	0.136	-265508.8	36663.59
sec	164059.4	53789.13	3.05	0.003	57628.43	270490.4
taxex	14142.65	68411.69	0.21	0.837	-121221.6	149506.9
natures	12764.68	54525.17	0.23	0.815	-95122.68	120652
gnp	122554.2	68417.35	1.79	0.076	-12821.19	257929.6
legal	67997.02	65944.64	1.03	0.304	-62485.72	198479.8
geoloc	-204993.7	81330.97	-2.52	0.013	-365920.9	-44066.48
indpol	31734.49	90332.88	0.35	0.726	-147004.6	210473.5
_cons	640284.6	150905.2	4.24	0.000	341692.9	938876.4

Table A9. Econometric results for the efficiency for the Main model (Chile).

fdi	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ifra	-222450.9	119302.4	-1.86	0.064	-458442.7	13540.93
qualab	-348030	66890.92	-5.2	0.000	-480346.9	-215713.2
wage	-96531.58	56814.62	-1.7	0.092	-208916.5	15853.35
sec	191730.4	46876.39	4.09	0.000	99004.32	284456.6
gnp	147637.1	64151.28	2.3	0.023	20739.55	274534.7
geoloc	-210663	68516.82	-3.07	0.003	-346196	-75129.97
_cons	640827.6	130717.2	4.9	0.000	382256.1	899399.1

Table A10. Econometric results for the probit model (Chile).

impde	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
taxex	0.8998633	0.4470276	2.01	0.044	0.0237053	1.776021
legal	2.180706	0.4004419	5.45	0.000	1.395854	2.965558
indpol	1.865219	0.4729674	3.94	0.000	0.9382194	2.792218
_cons	0.1999643	0.0775323	2.58	0.010	0.0680037	0.3519249

Dividend announcements effects on stock market returns: a comparative study between conventional and Shari'ah compliant stocks on Bursa Malaysia

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Keywords

Conventional Stocks, Shari'ah Compliant Stocks. Unexpected Changes in Dividend Announcements, Cumulative Abnormal Returns.

Abstract

Numerous studies have been conducted in Islamic compliant securities, and yet the debate surrounding whether these securities have a significant influence on the stock market rages on. This paper therefore examines the effects of changes in dividend announcements in respect to the conventional and Shari'ah compliant stocks on Malaysian stock market returns. In addition, the investigation will be conducted based on five different economic conditions namely for the: (1) overall period (1990-2010); (2) before the Asian financial crisis (1990-1996); (3) during the Asian financial crisis (1997-1998); (4) after the Asian financial crisis (1999-2007); and (5) during the global financial crisis (2008-2010). Our findings reveal that the changes in dividend announcements of Shari'ah compliant stocks had a significant effect on the Malaysian stock market returns compared to the conventional stocks for every economic condition, except for the period during the global financial crisis. The findings indicate that the Malaysian investors are more sensitive with changes in dividends of Shari'ah compliant stocks rather than the conventional stocks.

1. Introduction

There are abundance studies when it comes to examine the effects of dividend change announcements on stock returns in developed and emerging markets and yet no consensus is achieved due to the inconsistent nature of the findings. The insignificant findings in emerging markets can be found in the studies of Abdullah, et al. (2004), Nobanee, et al. (2009), and Ali and Chowdhury (2010). According to Abdullah, et al. (2004), increasing dividend and decreasing dividend announcements causing variations in cumulative abnormal returns (CAR), and none of the determinant variables of dividend increasing and dividend decreasing have significant effect on the CAR, using cross-sectional regression. Similar results are obtained when using stepwise regression except for BUMIPUTRA ownerships in a company, and pre-announcement CAR with significant effect on CAR for decreasing dividend announcements. Their results constitute no support on the dividend signalling, free cash flow and agency costs hypotheses. Unlike Abdullah, et al. (2004), Nobanee, et al. (2009) includes dividend no change, and no dividend no change samples in their study. They find MAR negatively correlated with dividend increases, dividend decreases, dividend no change, and no dividend no change, individually on the event date. Their results are similar using 3-day CAR. Ali and Chowdhury (2010) using sample data of a financial industry in Bangladesh for 9 months. They find stock prices increased by 1.84% in the seven 7-day price adjustment period after the dividend announcement date rather than 7.09% for the latter 7-day before the record date when investors wishing to gain dividend benefits. The results indicate that dividend announcements have no significant influence on stock prices. According to them, the role of speculators consist of insiders, brokers and exchange employees for short-term gains causing the dividend information to be ineffective. Among studies in developed countries that do not support the signalling theory include Amihud and Li (2005) and Grullon et al. (2002). Amihud and Li (2005) find that there is a significant decline over the years in the (absolute) stock price reactions to dividend change announcements that support their proposition that the information content of dividend announcements declines over

time. The effect of RMy (average monthly market return (value weighted) in year y) for dividend increases is negative and significant. They conclude that the increased stockholding by institutional investors, who are more informed than retail investors have reduced the dividend announcement effects on stock prices. Unlike other studies, Grullon et al. (2002) investigate the subsequent changes in the cash flows of the firms after announcing dividends to confirm the dividend signalling theory. They document the profitability represent by ROA decrease of 0.53% during the 3 years after the increase in dividends. Similarly, ROA increase by 0.44% a year in the 3 years after a decrease in dividends.

In contrast to the above findings, Mohamed, et al. (2006), and Bhana (1998) support the dividend signalling theory in emerging markets. Mohamed, et al. (2006) find the relationship between SUDC and CAR is significantly positively correlated in long event and short event windows. Their findings suggest that an increase (decrease) in dividend will increase (decrease) the stock prices. Weak support on the dividend clientele hypothesis because of dividend yields is significant only in short event window and partial support on free cash flow hypothesis for using Tobin Q (Dummy) as a proxy for firm growth. Different with Mohamed, et al. (2006), Bhana (1998) examines the effects of special dividend announcement to excess returns on the Johannesburg Stock Exchange. He finds companies with infrequent declaration (5 or fewer) of special dividends conveys more information with announcement period excess return of 1.81% that is significantly higher than the 1.29% earned by companies that appear on a more regular basis (6 or more declarations of special dividend). The results support the signalling effects but the extent of the signalling effects is determined by market anticipation. The subsequent findings are based on the developed markets and they support the signalling theory. Borde, et al. (1999) examines the effects of dividend increases to stock prices on hospitality industry on New York Stock Exchange (NYSE) from 1979 to 1994 for 15 years. According to them, dividend increases have significant positive relationship with AR and CAR. Similarly, Zhong (1999) emphasises mainly on a particular industry. He documents dividend increases have significant positive effect on the 2-day CAR on insurance industry. Capstaff, et al, (2004) report mixed results except for dividend increases with support on signalling theory. They conclude that the significant negative results on dividend decreases might be contributed by smaller magnitude of 19 observations only from 1993-1998. Sponholtz (2005) reports dividend surprise and CAR are significantly positive. The regression results between CAR with respective current earnings and expected earnings surprises, suggest that the information content of the surprise in management forecast of next year's earnings is much larger than that of the surprise component of current earnings. Ryan and Lee (2000) examine the signalling effects using dividend initiations and omissions on the CAR respectively. Their results suggest that dividend initiations (dividend omissions) will increase (decrease) the CAR. Their findings are consistent with that of Chemmanur, et al. (2010), who found that U.S. stocks prices react more positively for the dividend initiations and more negatively for the dividend omissions compared to Hong Kong. Different from other studies, Banker, et al. (1993) wanted to test the signalling effect using stock dividend announcements. They found that the 7-day CAR is significantly positive with stock dividend announcements with good history (if cash dividends are maintained or increased prior to stock dividend announcement) and statistically insignificant with negative relationship with the stock dividend with bad history (if cash dividend are decreased prior to stock dividend announcement).

Recently, numerous studies had been conducted on the Shari'ah compliant securities and yet the argument on whether the securities have significant influence on the stock market returns still remains unsolved. Shafi, R. M. (2011), investigates the effects of addition and deletion announcements of Shari'ah compliant securities from the Syariah Advisory Council (SAC) list on the MCARs (Mean Cumulative Abnormal Returns). The scholar found that there is no significant effect of the addition and deletion of the securities on the MCARs, in the pre and post events. In opposition, Jr., C. M., & Muhammad, J. (2010) states that the inclusion and exclusion exercise of

Shari’ah compliant stocks from the KLSE Shari’ah Index (SI) should have affected the stock prices and trading volume. This is due to 80 percent of the stocks listed on Bursa Malaysia are Shari’ah compliant securities. Moreover, investment decision by fund managers of Shari’ah based unit trust funds and Muslim investors are induced if only the stocks are included in the SI. Sadeghi, M. (2008) constitutes support on the justification as he found that the introduction of the Shari’ah-compliant index (SI) has significant positive effect on both the MCARs and liquidity of Bursa Malaysia over the long period. The scholar claims that the significant negative abnormal returns in the pre and post events over short period is attributed by the sale of shares by certain investors who concern with the introduction of SI. Due to the inconsistent findings on the Shari’ah compliant stocks, this paper therefore attempts to provide empirical evidence on the effects of unexpected dividend changes (UDC) in respect to Shari’ah and conventional stocks on the cumulative abnormal returns (CAR). In addition, the investigation will be conducted according to Malaysian economic conditions namely before the Asian financial crisis (1990-1996), during the Asian financial crisis (1997-1998), after the Asian financial crisis (1999-2007) and during the financial global crisis (2008-2010).

2. Model

The empirical model consists of the predictor variable is unexpected dividend changes (UDC) that have subgroups of dividend increases (DI), dividend decreases (DD), and dividend no-change (DNC) groups. The use of UDC is based on Sponholtz (2005). The scholar examines the effects of dividend surprises (similar to UDC comprises of DI, DD and DNC samples) on 2-day CAR on Copenhagen Stock Exchange, Denmark. The dividend changes are classified as DI if the amount of the dividend has increased for more than 10% from the previous year. The same concept also applies to DD if the amount of dividend has decreased of more than 10% from previous year. If the amount of announced dividend is similar or between +10% to -10% from the previous year, the dividend is classified as DNC. The changes in dividends are computed by the model below as used by Nur Adiana et al. (2004), Norhayati et al. (2006) and Karim (2010). Let D_{it} = expected dividend per share of firm i at time t , and let D_{it-1} = actual dividend per share of firm i at time t .

$$\Delta Div_{it} = \frac{D_{it} - D_{it-1}}{D_{it-1}} \dots\dots\dots (1)$$

The response variable is the cumulative abnormal returns (CAR). The abnormal return (AR) is the difference between actual return of firm i at time t and expected return generated by a risk-adjusted market model. This study used Market model of the Sharpe-Lintner Capital Asset Pricing Model (Sharpe, 1964; Lintner, 1965) to calculate the abnormal return based on Mohamed, et al. (2006) and Abdullah, et al. (2004). Let R_{it} = actual returns of firm i at time period t , let $\hat{\alpha}_i, \hat{\beta}_i$ = the parameters of market model, and let R_{mt} = return on Bursa Malaysia KLCI at period t .

$$AR_{it} = R_{it} - [\hat{\alpha}_i + \hat{\beta}_i R_{mt}] \dots\dots\dots (2)$$

To overcome the thin trading bias in Bursa Malaysia, the Dimson-Fowler-Rorke model is applied based on Mohamed, et al. (2006), Lonie and Abeyratna (1996), Gunasekarage and Power (2006) and Bujang and Nassir (2007). According to Dimson (1979) the estimation of unbiased $\beta_{t, dim}$ for security i on t time is as follows:

$$R_{it} = \alpha + \beta_{-2} R_{m, t-2} + \beta_{-1} R_{m, t-1} + \beta_t R_{m, t} + \beta_{+1} R_{m, t+1} + \beta_{+2} R_{m, t+2} \dots\dots (3)$$

However, Fowler and Rorke (1983) as outlined by Imbarine (2005) recommended that the beta coefficients should be weighted by serial correlation in the market return in order to yield a consistent and unbiased beta coefficient. This study used two-lead and two-lag market returns as stated in equation 4. This is based on Ariff et, al (1998) as cited in Mohamed (2005), which specifying that the utilization of two leads and two lags of market returns in the market model, appears to lead to both stable and unbiased beta estimation in the Malaysian capital market. The market model is stated as follows;

$$R_{mt} = \rho_0 + \rho_1 R_{m, t-1} + \rho_{-2} R_{m, t-2} + U_t \dots\dots\dots (4)$$

The weight (W) for correcting the beta coefficients is:

$$W1 = (1 + 2 \rho1 + \rho2) / (1 + 2 \rho1 + 2 \rho2) \dots\dots\dots (5)$$

$$W2 = (1 + \rho1 + \rho2) / (1 + 2 \rho1 + 2 \rho2) \dots\dots\dots (6)$$

Based on Dimson (1979) and Fowler and Rorke (1983) model, the adjusted beta, $\beta_{i,0}$ for stock i on day 0 is as follows:

$$\beta_{i,0} = W_2(\beta_{i,-2}) + W_1(\beta_{i,-1}) + \beta_{i,0} + W_1(\beta_{i,+1}) + W_2(\beta_{i,+2}) \dots\dots\dots (7)$$

The adjusted beta, $\beta_{i,0}$ is then, substitute to equation (2). The alpha (α) is measured based on daily returns derived from the market returns regression. Once the parameters of market model, α_i, β_i are measured, the abnormal return is calculated based on the equation (2).

The event period for this study is from the announcement date to two days after the announcement date (0 to +2 days) for short event windows based on Mohamed, et al. (2006). This is because the scholars found that dividend changes and cumulative abnormal returns are statistically significant for short event period for 0 to +2 days. The abnormal returns are aggregated over event windows to derive the cumulative abnormal returns. The cumulative abnormal return is computed as follows:

$$CAR_i(t_1t_2) = \sum_{t_1}^{t_2} AR_{it} \dots\dots\dots (8)$$

Based on panel data approach on cumulative abnormal return, the empirical model used is as follows:

$$\text{Log } CAR_{it} = \alpha + b_1 \text{UDC}_{it} + e_{it} \dots\dots\dots (9)$$

Let $\text{Log } CAR_{it}$ = log cumulative abnormal returns of firm i at time t, let UDC_{it} = unexpected dividend changes of firm i at time t, let e_{it} = disturbance term assumed to be normally distributed, let t = time, and let i = firm.

3. Data and Methodology

Table 1: No. of Observations of Unexpected Dividend Changes Comprised of Dividend Increases, Decreases and No-Change Announcements in Respect to Shari’ah Compliant and Conventional Stocks Based on Economic Condition

Economic Condition	N	Unexpected Dividend Changes (UDC)		Dividend Increases (DI)		Dividend Decreases (DD)		Dividend No-Change (DNC)	
		Shari’ah Stocks	Conventional Stocks	Shari’ah Stocks	Conventional Stocks	Shari’ah Stocks	Conventional Stocks	Shari’ah Stocks	Conventional Stocks
Overall Period (1990-2010)	861	525	336	156	109	103	72	266	155
Before Asian Financial Crisis (1990-1996)	287	175	112	49	44	26	19	100	49
During Asian Financial Crisis (1997-1998)	82	50	32	8	7	12	13	30	12
After Asian									

Financial Crisis (1999-2007)	369	225	144	73	45	47	27	105	72
During Global Financial Crisis (2008-2010)	123	75	48	25	13	19	13	31	22

Table 1 shows the number of observations of unexpected dividend changes (UDC) with subgroups of dividend increase (DI), dividend decrease (DD) and dividend no-change (DNC) according to Malaysian economic conditions. The sample size is limited to only 41 listed companies as they had consistently announced cash dividends from the year 1990 to 2010 over the 21-years. The reason is to apply panel data analysis and to identify the type of economic condition that can stimulate investors' reactions to changes in dividend announcements in respect to Shari'ah compliant stocks and conventional stocks.

Table 2: Summary of Hypotheses Testing Between Cumulative Abnormal returns (LnCAR) and Unexpected Dividend Changes (UDC) in Respect to Shari'ah and Conventional Stocks Based on Economic Conditions

Overall Period (1990-2010)	Before Asian Financial Crisis (1990-1996)	During Asian Financial Crisis (1997-1998)	After Asian Financial Crisis (1999-2007)	During Global Financial Crisis (2008-2010)	Type of Stocks
H1	H2	H3	H4	H5	<i>Shari'ah compliant Stocks</i>
H6	H7	H8	H9	H10	<i>Conventional Stocks</i>

Notes: H1 = Hypothesis 1, H2 = Hypothesis 2, H3 = Hypothesis 3, H4 = Hypothesis 4, H5 = Hypothesis 5, H6 = Hypothesis 6, H7 = Hypothesis 7, H8 = Hypothesis 8, H9 = Hypothesis 9, and H10 = Hypothesis 10

As shown in Table 2, this study produces ten (10) hypotheses testing. The first five (5) hypotheses are to examine the relationship between the unexpected changes in dividend of the Shari'ah compliant stocks and the cumulative abnormal returns in every economic condition. The remaining hypotheses have the same objectives but the explanatory variable is the unexpected changes in dividend of the conventional stocks.

4. Analysis of Findings

The panel unit root used is: (1) Levin, Lin and Chu (LLC) test; and (2) Im, Pesaran and Shin (IPS) test. These tests have the same null hypothesis that all panels contain unit roots and are not stationary and the alternative hypothesis contains otherwise. The cumulative abnormal returns (CAR) had been transformed into natural logarithms (LnCAR) due to the CAR being found to have skewed distribution. The results of panel unit root tests can be seen in Table 3. The adjusted t-statistic of LnCAR and UDC in respect to Shari'ah compliant and conventional stocks are significant at the 10% and 1% level, indicating that the panels used are stationary for the overall period (1990-2010), before the Asian financial crisis (1990-1997) and after the Asian financial crisis (1999-2007). However, these tests cannot be performed in the period during the Asian financial crisis (1997-1998) and during the global financial crisis (2008-2010) due to data being insufficient.

Table 3: Results of Panel Unit Root Tests on Cumulative Abnormal Returns (LnCAR) and Unexpected Dividend Changes (UDC) in Respect to Shari'ah Compliant and Conventional Stocks.

Economic Condition	LnCAR		UDC	
	Shari'ah Stocks	Conventional Stocks	Shari'ah Stocks	Conventional Stocks
Overall Period (1990-2010)				
LLC	-2.4246	-5.2859	-17.2569	-14.1468
p-value	(0.0077)***	(0.0001)***	(0.0001)***	(0.0001)***
IPS	-1.4327	-4.0285	-17.2787	-12.6708
p-value	(0.0760)*	(0.0001)***	(0.0001)***	(0.0001)***
Before Asian Financial Crisis (1990-1996)				
LLC	-8.1426	-5.1079	-11.6279	-15.1562
p-value	(0.0001)***	(0.0001)***	(0.0001)***	(0.0001)***
IPS	-1.1131	0.2732	-7.1487	-6.0873
p-value	(0.1328)	(0.6077)	(0.0001)***	(0.0001)***
During Asian Financial Crisis (1997-1998)				
LLC	N/A	N/A	N/A	N/A
p-value				
IPS	N/A	N/A	N/A	N/A
p-value				
After Asian Financial Crisis (1999-2007)				
LLC	-0.9842	-2.20E+02	-7.7972	-11.3749
p-value	(0.1625)	(0.0001)***	(0.0001)***	(0.0001)***
IPS	1.4289	-61.6047	-5.6856	-6.9089
p-value	(0.9235)	(0.0001)***	(0.0001)***	(0.0001)***
During Global Financial Crisis (2008-2010)				
LLC	N/A	N/A	N/A	N/A
p-value				
IPS	N/A	N/A	N/A	N/A
p-value				

Notes: Figures in the parentheses are the p-values. * denotes significance at the 10% level, ** denotes significance at the 5% level and *** denotes significance at the 1% level.
N/A denotes the variable is not included in model tested.

Table 4: Results of Regression Analysis Between Unexpected Changes in Dividend (UDC) of Shari'ah Compliant Stocks and Cumulative Abnormal Returns (LnCAR).

Dependent Variable: LnCAR

Statistic	Overall Period	Before Asian Financial Crisis	During Asian Financial Crisis	After Asian Financial Crisis	During Global Financial Crisis
Breusch Pagan LM Test	1741.97	195.24	6.49	576.36	61.56
p-value	(0.0001)***	(0.0001)***	(0.0108)***	(0.0001)***	(0.0001)***
Hausman Specification Test	3.29	N/A	0.07	0.001	0.81
p-value	(0.0696)		(0.7842)	(0.9752)	(0.3678)
UDC					
β	0.2098631		0.8466595	0.2639258	0.042743
Z-stat	4.63		2.65	5.41	0.97
p-value	(0.0001)***		(0.008)***	(0.0001)***	(0.331)
Constant					
β	1.84691		1.860719	1.786287	2.309797
Z-stat	14.41		13.09	11.93	14.06
p-value	(0.0001)***		(0.0001)***	(0.0001)***	(0.0001)***
UDC					
β		0.2573481			
t-stat		2.6			
p-value		(0.010)**			
Constant					
β		1.717073			
t-stat		29.03			
p-value		(0.0001)***			
R-Squared		0.026			

Notes: Figures in the parentheses are the p-values. * denotes significance at the 10% level, ** denotes significance at the 5% level and *** denotes significance at the 1% level.

Table 5: Results of Regression Analysis Between Unexpected Changes in Dividend (UDC) of Conventional Stocks and Cumulative Abnormal Returns (LnCAR).

Dependent Variable: LnCAR

Statistic	Overall Period	Before Asian Financial Crisis	During Asian Financial Crisis	After Asian Financial Crisis	During Global Financial Crisis
Breusch Pagan LM Test	2139.36 (0.0001)***	181.24 (0.0001)***	7.04 (0.0080)***	493.93 (0.0001)***	44.25 (0.0001)***
Hausman Specification Test	0.01 (0.9129)	4.31 (0.0379)	0.44 (0.506)	0.09 (0.7703)	0.03 (0.8593)
UDC	0.0253434		1.07692	0.0526375	0.028371
β					
Z-stat	0.6		2.65	1.46	0.66
p-value	(0.551)		(0.008)***	(0.144)	(0.508)
Constant					
β	2.152201		2.291145	2.114437	2.398513
Z-stat	8.73		9.87	7.77	8.75
p-value	(0.0001)***		(0.0001)***	(0.0001)***	(0.0001)***
UDC					
β		0.122106			
t-stat		0.65			
p-value		(0.527)			
Constant					
β		2.031517			
t-stat		73.97			
p-value		(0.0001)***			

Notes: Figures in the parentheses are the p-values. * denotes significance at the 10% level, ** denotes significance at the 5% level and *** denotes significance at the 1% level.

Table 4 illustrates the results of regression analysis between unexpected changes in dividend (UDC) of Shari'ah compliant stocks and log cumulative abnormal returns (LnCAR) using panel data analysis. The UDC comprises of subgroups of dividend increases (DI), dividend decreases (DD) and dividend no-change (DNC) without the restriction of dividend changes of more than 10%. By using UDC, this study is dealing with the balanced panels. The inclusion of DNC in the sample of UDC is due to DNC having dominated the total number of observations of dividend changes for every economic condition. Overall results in Table 4 constitute support that the unexpected increases (decreases) in dividends of Shari'ah compliant stocks lead the stock market returns to increase (decrease). This significant positive relationship also indicates that dividend no-change (DNC) has a positive impact on the market as investors regard DNC as a stable dividend policy. The significant positive results are consistent with Mohamed, et al. (2006), Borde, et al. (1999), Lonie and Abeyratna (1996), Gunasekarage and Power (2006) and Ryan, et al. (2000).

Overall results in Table 5 however show that the relationship between unexpected changes in dividends of conventional stocks and cumulative abnormal returns have a positive relationship but

are insignificant, for every economic condition except for the period during the Asian Financial Crisis. These findings are consistent Abdullah, et al. (2004), Nobanee, et al. (2009), and Karim (2010) who found that dividend changes have insignificant relationship with the stock returns. This study concludes that the changes in dividend announcements of Shari'ah compliant stocks had strong significant effect on the Malaysian stock market returns compare to the conventional stocks for every economic condition, except for the period during the global financial crisis suggesting that other economic factors might cause the dividend signaling effects is ineffective in the stated period. These findings also indicate that the Malaysian investors are more sensitive with changes in dividends of Shari'ah compliant stocks rather than the conventional stocks.

Table 6: Results of Hypotheses Testing Between Unexpected Dividend Changes of Shari'ah Compliant Stocks and Cumulative Abnormal Returns (LnCAR).
Dependent Variable: LnCAR

	Before Asian Financial Crisis (1990-2010)	During Asian Financial Crisis (1997-1998)	After Asian Financial Crisis (1999-2007)	During Global Financial Crisis (2008-2010)
Overall Period				
<u>H1:</u>	<u>H2:</u>	<u>H3:</u>	<u>H4:</u>	<u>H5:</u>
Reject H_0	Reject H_0	Reject H_0	Reject H_0	Fail to Reject H_0

Notes: H1 = Hypothesis 1, H2 = Hypothesis 2, H3 = Hypothesis 2, H4 = Hypothesis 4, and H5 = Hypothesis 5.

The results shown significance at 1% and 5% level.

Table 6 shows the summary results of hypotheses testing between unexpected changes in dividend of Shari'ah compliant stocks and cumulative abnormal returns. The null hypothesis (H_0) of hypothesis 1, 2, 3 and 4 except 5 are rejected indicate that there is a significant positive relationship between unexpected changes in dividend of Shari'ah compliant stocks and cumulative abnormal returns in the stated periods.

Table 7: Results of Hypotheses Testing Between Unexpected Dividend Changes of Conventional Stocks and Cumulative Abnormal Returns (LnCAR). Dependent Variable: LnCAR

	Before Asian Financial Crisis (1990-2010)	During Asian Financial Crisis (1997-1998)	After Asian Financial Crisis (1999-2007)	During Global Financial Crisis (2008-2010)
Overall Period				
<u>H6:</u>	<u>H7:</u>	<u>H8:</u>	<u>H9:</u>	<u>H10:</u>
Rejected H_1	Rejected H_1	Rejected H_0	Rejected H_1	Rejected H_1

Notes: H6 = Hypothesis 6, H7 = Hypothesis 7, H8 = Hypothesis 8,

H9 = Hypothesis 9, and H10 = Hypothesis 10.

The results shown significance at 1% level.

Table 7 however shows opposite findings between the unexpected changes in dividend of conventional stocks and cumulative abnormal returns. The rejection of alternate hypothesis (H_1) in hypothesis 6, 7, 9 and 10 except 8, indicate that the given dependent variable have insignificant relationship towards the independent variable in the stated periods.

5. Conclusion

This study concludes that the changes in dividend announcements of Shari'ah compliant stocks had strong significant effect on the Malaysian stock market returns compare to the conventional stocks for every economic condition, except for the period during the global financial crisis suggesting that other economic factors might cause the dividend signalling effects is ineffective in the stated period. These findings indicate that the Malaysian investors are more sensitive with changes in dividends of Shari'ah compliant stocks rather than the conventional stocks. This is consistent with findings of Jr., C. M., & Muhammad, J. (2010) and Sadeghi, M. (2008) who claim that the Shari'ah compliant stocks and Shari'ah-compliant index (SI) have significant positive effect on the stock returns and trading volume on Bursa Malaysia.

6. Research Limitations and Recommendations

This section is designated for limitations of this study. Firstly, the sample size of this study is relatively small with 25 companies from the Shari'ah approved counters and 16 companies from the conventional counters. This is due to the fact that the sample must comply with the following criteria: (a) the company must be available from the year 1990 to 2010 for the 21-year period; (b) companies must have consistently announced cash dividends from the year 1990 to 2010 for the 21-year period; (c) the dividend announcements must be on a cash basis; and (d) there are no corporate events such as the announcement of stock splits, stock dividends and bonus issues, and mergers and acquisitions surrounding the dividend announcement dates that could have an influence on stock price movements. Secondly, some tests could not be performed under certain economic conditions due to the small size of the sample. For example, panel unit root and diagnostic tests were unable to be performed in the period during the Asian financial crisis and during the global financial crisis due to insufficient data. Finally, the event (period) of interest of this study is only from the announcement date to two days after the announcement date (0 to +2 days), based on the study of Mohamed, et al. (2006) for short event windows. This study did not investigate the long event window due to confounding events such as stock dividends, stock splits and bonus issues were found on the outside of short event windows. If the long event window is to be included, this study must eliminate some of the samples. The exclusion of the long event window causing pre event and post event returns is not included in this study. It is recommended that further research should be undertaken in the following areas. The sample size should be expanded. This can be done if the focus is given to listed companies that have announced stock dividends rather than cash dividends. Next, the investigation on the pre-event and post-event announcement returns should be included for the upcoming studies.

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Inventory management practices among Malaysian micro retailing enterprises

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Keywords

Inventory management, retailing sector, Malaysia, micro enterprises, SMEs

Abstract

Inventory management represents a key success factor that shows how efficient a company is controlling its inventories. However, there is little information on inventory management practice in a small business setting. Therefore, this study examines the current state of inventory management practices and factors that influence their use in micro retailing enterprises. A questionnaire survey was employed to gather data from the targeted respondents. Using 100 completed replies, the results demonstrate that most responding enterprises have adopted both unsystematic and systematic inventory management approaches in their business. A fully systematic approach of inventory management was only utilized by 33 per cent of the total respondents. In terms of inventory management techniques used, 'the rule of thumb' is the most popular among respondents. Meanwhile, EOQ, Bar Code Tagging and VMI are only applied by a small number of respondents. The results also indicate that Purchasing and Controlling are the most frequent inventory management activities applied by micro enterprises as opposed to Storage and Tracing. Finally, the results suggest that owner/managers' attitude and knowledge in inventory management have significant and positive influences on inventory management practices. On the other hand, the cost factor has a significant and negative influence on inventory management practices. Thus, all three proposed hypotheses developed in this study are supported.

1. Introduction

Inventory management is one of the most important components in operation management (Capkun et al., 2009), as this area has been a central management function in material management systems (Mohanty, 1985; Rajeev, 2008; and Ahmad et al., 2014). It is also a crucial aspect of management, since inventory is one of the significant financial assets of a business that can indirectly affect profitability. Dobler (2006) claimed that firms with good inventory management can increase the firms' overall profit that will result in an increased level of working capital, production and customer satisfaction (Rajeev, 2008). The roles and functions of inventory management should be clearly assessed through linking the firm's goal to the requirement of the inventory. Pirtila and Virolainen (1992) argued that the task of inventory management is to transform broad and general business objectives into operational actions in day-to-day inventory control and aims to strike a balance between inventory investment and customer service (Heizer and Render, 2014, p. 512). This is because firms with high volume of inventories usually have to bear substantial inventory costs such as the holding cost, transportation, and management costs (Waller et al., 2006). Thus, these financial commitments need to be controlled carefully. Apart from that, the objective of inventory management is to turn over the inventory as quickly as possible without losing sales (Gitman and Zutter, 2012). In achieving these goals, enterprises should understand customer needs, vendor partnerships, technology, data integrity, and performance measurements (Lee and Kleiner, 2001).

In the retailing industry, an efficient inventory management practice may give a significant implication to the firm's performance. Retailing refers to a process of selling consumer goods or services to customers through multiple channels of distribution to earn a profit (Gaur et al., 2005). Demand is made through various target markets and promotional activities, for fulfilling the consumers' wants and needs through a lean supply chain (Gaur et al., 2005). Therefore, the retailing

industry involves a substantial amount of inventories that need to be sold to the end customers. For the past 25 years, retailing has gone through a phase of unprecedented change as the intensity of competition among retailers and customers' demands have increased (Bala, 2012). During this phase, the operations in retail businesses have transformed from manual inventory control systems to computerized systems. This is in line with the changes that occurred in technology and to meet with the current economic demand. Beheshti (2010) argued that in today's dynamic and competitive business environment, inventory managers of retail organizations are increasingly under pressure to develop systems that will enable them to minimize inventory costs, improve the flow of inventory in the supply chain, and meet customer demand in a timely fashion. The successful retailers will utilize a systematic inventory management in improving their customers' satisfaction through refined merchandise assortments and in-stock position (Lee and Kleiner, 2001). High level of customer satisfaction will result in increased revenue, lower inventory level, greater liquidity, and improved return on investment. Thus, inventory management represents a key success factor that displays how efficiently a company is controlling its inventories.

In most countries, the retailing industry consists of a significant number of businesses, especially in the small and medium-sized enterprises (SMEs) sector. For example, in Malaysia, almost half of the SMEs come from wholesale and retail industries. Out of this portion, 80 per cent of the establishments fall into the category of micro enterprises. Malaysian micro enterprise is defined as businesses that fall within the criteria of having either an annual sales turnover of less than RM 300,000 (equivalent to approximately USD 75,000) or fewer than five employees. The predominance of retail businesses is consistent with the high proportion of micro enterprises, which comprise 77 per cent of the total Malaysian SMEs (Ahmad, 2012). This signifies the important roles of micro enterprises for promoting the growth of retailing activities in the economy. Given the significant number of micro-enterprises, this sector contributes significantly to the economic development, employment and entrepreneurship opportunities. In regards to this, the application of a systematic inventory management within this sector should not be underestimated.

There are substantial empirical evidences concerning the inventory management practice (for example Lee and Kleiner, 2001; Capkun et al., 2008; Koumanakos, 2008; Shah and Shin, 2007; Rajeev, 2008 and Koliass et al., 2010). Despite this, the research into inventory management practices within small businesses is still scarce. Previous studies suggested that most inventory control techniques and concepts in use at present are applied mostly by larger firms, which have less financial restriction for adopting the modern management approach. Chikan and Whybark (1990) argued that SMEs were slow to adopt and implement contemporary inventory management practices. This is due to the inadequacy of resources in SMEs, including limited financial and skills which have become the main barriers for employing a more sophisticated approach. Thus, additional empirical evidences need to be collected to provide a clear insight on inventory management practices within the small enterprises context. Furthermore, in the case of retailing industry in Malaysia, there is a lack of information on inventory management practices in the SMEs sector. Therefore, this paper has begun to bridge this gap by investigating the current practice of inventory management in the Malaysian micro retailing enterprises and factors that influence inventory management practice. Consequently this paper enriches the body of knowledge in inventory management in small businesses. The remainder of this paper is set out as follows; the literature review is discussed in the next section followed by methodology and results and discussions. Conclusion is presented in the final section of this article.

2. Literature Review

There are considerable studies into the factors influencing inventory management practices. Previous studies had suggested a number of potential variables associated with the inventory management practice that came from a different context of research. Financial constraints, human factor, technology used and other organizational factors were among the variables found in the

previous studies. For example, Chikan and Whybark (1990) explored the inventory management practices of SMEs in Finland, based on the experiences of managers in the inventory management. The findings suggested that in Finland, the inventory management decisions were made at the operational level with minimal guidance from the top. This result which indicated the *laissez faire* leadership style may influence the different level of inventory management practices in an organization. Furthermore, Chikan and Whybark (1990) claimed that the lack of accurate, real-time and suitable aggregate information of material flows and stock levels prevented the Finnish SMEs from setting precise quantitative goals for inventory management. Likewise, Manthou (1994) conducted a study on the use of computer information systems in inventory management in small to medium and large companies of Northern Greece. The research found that although the use of computers at the operational level was satisfactory, the use of integrated information systems was non-existent in small to medium firms.

The main problem of a sophisticated inventory management usage was due to the inadequacy of qualified personnel as well as the management's attitude. In a later study, Ayad (2008) examined key factors within the control of store managers to optimize the inventory and store. The results found that different stores within the same companies and different departments within the same stores delivered different results, mainly due to human factors, specifically in terms of critical thinking, functional knowledge, and leadership. Strohhecker and Grobler (2013) focused on the physiological traits of inventory managers by investigating the influence of four personal traits (intelligence, knowledge, personality and interests) on performance in a dynamically complex inventory management task. The results showed that intelligence was the strongest predictor of inventory performance. Additionally, the results suggested that a strong interest for social issues can lead to higher cost and thus, worse performance.

Meanwhile, Rajeev (2008) investigated the factors associated with inventory management problems in the machine tool enterprises in Bangalore, India. The study revealed the use of rule-of-thumb for inventory management, random ordering of materials and low attention given on forecasting, training and development, computer use, purchasing and variable lead-time. Similarly, Bala (2012) concluded that retailers with the sophisticated computerized systems for better forecasting and improved inventory management had an edge over the others in terms of profitability. Thus, retailers can make use of the proposed model for demand forecasting of various items to improve the inventory performance and profitability of operations. Ali et al. (2013) who investigated inventory management of perishable products proposed that time decay and shortages were common issues in products with short life cycles. The financial volatility necessitated a more accurate characterisation of inventory costs based on the time-adjusted value. This was consistent with the findings of Chikan and Whybark (1990), who revealed that financial pressures forced the enterprises to reduce their inventories, which eventually led to internal as well as external stock outs. Other previous studies that investigated inventory management in different angles of study were carried out by Waller et al. (2006); Wallin et al. (2006); Niranjan et al. (2012); and Shen et al. (2013). Waller et al. (2006) who explored the impact of common inventory system inaccuracies that occurred in retail outlets on the inventory levels, fill rate, and service level of those outlets found that inventory system error and the frequency with which the error was corrected were statistically significant for the fill rate and service level. Furthermore, Wallin et al. (2006) explored the critical factors that influenced the decision on the purchase of inventory management, which were based on four choices; inventory speculation, inventory postponement, inventory consignment, and reverse inventory consignment. They concluded that the decision was influenced by three factors; customer demand or usage requirements, nature of the supply line and bargaining power of a firm relative to the supplier. Next, Urban (2002) examined the interdependence of inventory management and retail shelf management and found a linear relationship between the optimal order quantity and allocated shelf space.

There are substantial studies on vendor-managed-inventory (VMI) as VMI has become a widely used tool for the supply chain performance improvement (Niranjan et al., 2012). Furthermore VMI has been proven to be an effective tool for improving the supply chain performance by decreasing inventory-related costs and increasing customer service (Shen et al., 2013). This claim was supported by Tanskanen et al. (2009), who explored the challenges of managing logistics at corporate level in the construction industry, and concluded that VMI was an efficient solution for small item logistics at construction sites, provided that it was well-designed and movable. Dorling et al. (2006) identified seven key determinants of successful VMI and strategic supply chain relationships for industries characterised by oligopolistic competition. These were integrated into a step-wise framework that provided a path for practitioners to follow when establishing the VMI and strategic supply chain relationships in the New Zealand food industry. Meanwhile, Claassen et al. (2008) investigated the performance outcomes of VMI from a buyer's perspective and enablers for its successful application. The findings showed that buyer-perceived VMI success was impacted by the quality of the buyer-supplier relationship, the quality of the IT-system and the intensity of information sharing, but not by the actual quality of the information shared. Furthermore, VMI had led to three performance outcomes: higher customer service levels, improved supply chain control and, to a lesser extent, cost reduction. In more recent study, Niranjan et al. (2012) investigated the critical issues surrounding VMI implementation, and to support corporate practice with a methodology for evaluating the VMI readiness of firms. Fifteen features that determined the suitability of VMI can be broadly categorised as product-, company-, and supplier-related features. Next, Shen et al. (2013) who explored VMI practices from small and medium Indian enterprises found that organizational issues and unwillingness to share information were the major barriers of VMI adoption.

The literature above suggested that inventory should be properly and systematically managed in order to avoid loss to the company, as it associates with the performance. Organizational issues and an unwillingness to share information within the retailing enterprises appeared to be significant challenges to further improve the inventory management practices within small businesses. The literature also proposed that the culture of lack of precision of inventory information, especially due to the lack of sophisticated system or technology, might affect the efficiency of inventory management. Other than that, the prioritising of tasks for the whole inventory management process should be emphasised for enhancing the performance of inventory management. Therefore, this research was conducted to fill in the research gap and to contribute additional information to the body of knowledge in the inventory management field by exploring the current state of inventory management practices among small retailing enterprises and factors that influence the practices of proper inventory management among small enterprises. Factors found in relation to inventory management guided the development of the research framework of this study. Based on the previous studies exploring the effects of the contextual variables and inventory management practices, this study had sought to test whether cost and human factors had a significant influence on the inventory management practices. While the cost factor remains a clear barrier in the small business context for the adoption of systematic management practices (see Chikan and Whybark, 1990 and Ali et al., 2013), owner/managers' attitude towards a proper inventory management practice and their knowledge on inventory management may have a greater likelihood on higher inventory management practices. Managerial support towards the use of management practices had been investigated in many studies related to the use of advanced management practices. For example, Ahmad and Mohamed Zabri (2015) argued that the commitment of owner/manager was one of the key factors that affected the extent of use of sophisticated techniques in smaller firms. This is consistent with Ayad (2008), who concluded that human factors, specifically in terms of critical thinking, functional knowledge, and leadership, played roles in the implementation of proper inventory management practices. This study restricted

the number of selected contextual variables due to the relevancy of these variables in a small business setting. Thus, the following hypotheses were developed in order to achieve the research aim of this study.

H₁: Cost barrier has a significant influence on inventory management

H₂: Attitude towards inventory management has a significant influence on inventory management

H₃: Knowledge on inventory management has a significant influence on inventory management

This study divided inventory management practices into two components; Storage and Tracing and Purchasing and Controlling. Figure 1 illustrates the influence of cost barrier, owner/managers attitude and knowledge towards inventory management practices.

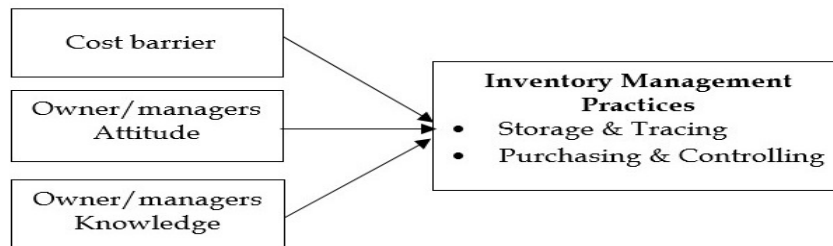


Figure 1: Conceptual framework of contextual factors and inventory management dimensions.

3. Research methodology

This study focuses on micro enterprises in the retailing industry as the target population. Questionnaires were distributed directly to 500 owners/managers of the micro retailing enterprises, using a simple random sampling among the retailing enterprises in order to allow for an unbiased representation of a group. Responses to the initial questionnaires were received from 55 respondents. After several follow-ups, a total of 100 completed responses were received, which was equal to 20% of the response rate. The questionnaire comprised of information on the background of respondents, general questions on inventory management practices, details of inventory management practices and factors influencing the inventory management practices. Details of inventory management practices were measured using 16 items related to how the inventory was stored, handled, controlled and purchased. These activities were further classified into two main categories; Storage and Tracing and Purchasing and Controlling. The first category refers to the activities related to how the inventories were kept and traced. This component helps the enterprises to easily trace and identify the inventories. The second category comprise of activities related to purchase and control. This is a critical aspect of inventory management in ensuring sufficient amount of inventories are available when needed. Meanwhile, the selected factors associated with inventory management practices included cost, owner/manager's attitude and owner/manager's knowledge on inventory management. All items were measured using a five Likert scale from 1; Strongly Disagree to 5; Strongly Agree. The reliability analysis using a Cronbach's alpha value was conducted in order to calculate the internal consistency of all scaled-items used in this study. The closer the Cronbach's alpha coefficient is to 1.0, the greater the internal consistency of the items. Table 1 shows the results of the reliability test.

Table 1: Results for reliability tests

No.	Variables	No. of items	Cronbach's alpha coefficient
1	Inventory management practices	16	0.94
2	Cost barrier	4	0.819
3	Owner/managers' attitude	5	0.858
4	Owner/managers' knowledge	3	0.896

The results of the reliability test indicated that all items were found to be highly reliable where the Cronbach's alpha values were greater than 0.8.

4. Results and discussions

This section discusses the results of the data collected from 100 replies. Descriptive analysis was employed to understand the profiles of the respondents. Meanwhile, correlation and multiple regression analyses were conducted for hypotheses testing on the influence of cost barrier, owner/managers' attitude and knowledge on inventory management practices. The section begins with a discussion on the profiles of the firms.

Profiles of the responding firms

Table 2 shows the profiles of respondents in terms of number of employees, years in business, inventory management approach and the techniques adopted. The results showed that most respondents had a number of employees below 5, which indicated the size of microenterprises. This was followed by small and medium-sized enterprises which were around 17 per cent and 5 per cent respectively. Meanwhile, the majority of the enterprises were still new in the business, where more than 50 per cent of the respondents stated that they had been operating for not more than five years. About a quarter of the total respondents had been in business for more than 10 years.

Table 2: Demographic profiles of respondents (N=100)

	Frequency (%)		Frequency (%)
<i>Education level of owner/managers</i>		<i>Years in business</i>	
UPSR/PMR	10	Less than 5 years	58.0
SPM	48	5 to 10 years	18.0
STPM/Diploma	26	10 – 15 years	10.0
Bachelor degree	16	≥ 15 years	14.0
Total	100.0	Total	100.0
<i>No. of employees</i>		<i>Type of business entity</i>	
0 – 5	78.0	Proprietorship	66
6 – 20	6.0	Partnership	13
21 – 50	11.0	Companies	18
51 – 150	3.0	Non-registered	3
> 150 employees	2.0	Total	100.0
Total	100.0		
<i>Owner/managers' gender</i>			
Male	67		
Female	33		
Total	100.0		

General information on inventory management practices

Table 3 presents the data on the general information of inventory management practices. The results show that 17 percent of the total respondents have unsystematic inventory management practices, which is considered low. However, nearly 50 percent of the respondents agreed that their inventory was managed in both systematic and unsystematic ways, which meant that formal and informal approaches have been undertaken. The results also demonstrate that a third of the total respondents used a fully systematic way. Overall, the results suggest that a moderate number of small business retailers have implemented proper inventory management practices. In terms of techniques used, the results indicate that 'own experience' or 'the rule of thumb' appear to be the most used techniques in inventory management among the respondents. Meanwhile, the EOQ technique is only utilized by 26 percent of the respondents. Bar code tagging and VMI are the lowest techniques used by the respondents, with six percent and four percent respectively. The results suggest that the majority of the respondents used their own experience to manage the inventory, which is more to the informal style. This might be due to their relatively small size and other constraints that may contribute to this condition. Therefore, in general, most respondents made use of the informal method in managing inventory for their routine operations.

Table 3: General information of inventory management practices (N=100)

	Frequency (%)		Frequency (%)
<i>Inventory management approach</i>		<i>Techniques used in inventory management</i>	
Unsystematic	17.0	Own experience/ Rule of Thumb	64.0
Mix of systematic and unsystematic	49.0	Economic Order Quantity (EOQ)	26.0
Systematic approach using certain inventory management techniques	34.0	Vendor Managed Inventory	4.0
Total	100.0	Bar Code Tagging	6.0
<i>Quantity of inventory storage</i>		Total	100.0
Low	15		
Medium	52		
High	33		
Total	100.0		

Detailed information of inventory management practices

This section discusses in details of the current state of inventory management practices which were measured using 16 items related to inventory management main activities. The 16 items were initially developed based on two principal activities of inventory management; Storage and Tracing and Inventory Purchasing and Controlling. A principal components analysis (PCA) with varimax rotation was first carried out to confirm whether the items used matched to these categories or fell into other aspects of inventory management. Table 4 presents the results of PCA analysis which divides the selected 16 items of inventory management into two broad activities. The first component includes 10 items (B12, B13, B15, B19, B20, B21, B22, B23, B24 and B25) whereas the other category consists of 6 items (B10, B11, B14, B16, B17 and B18). This classification is roughly consistent of the decision made to categorize inventory management into two main categories that included storage and purchasing. Table 4 includes the descriptive analysis for each of the 16 items. The highest mean scores are B21: Suppliers will be evaluated in terms of price, quantity of purchase and reliability; B22: organization has a list of valid and reliable suppliers; and B24: All inventories received from suppliers will be checked through supplier's invoice and Purchase Order' with the mean values of 3.98; 3.95; and 3.79 respectively. These findings suggest that micro enterprises put emphasis on the accuracy of the purchased items from their valid and reliable suppliers. This purchasing procedure which involved the evaluation aspect is a critical process for avoiding waste and loss of the purchased items. Other significant items were B13; B23; and B25, with the mean values of 3.69; 3.63; and 3.60 respectively. These three items indicate a control on when a new order will be made and a regular monitoring on the previous purchased items. The findings denote that the respondents have a high use of the inventory management procedure for Purchasing and Controlling.

Table 4: Descriptive statistics of inventory management practices and PCA

No.	Description	Mean	Std. dev.	Skew	Kurtosis	Rotated Component Matrix ^a	
						1	2
B10	Every inventory's movement in and out of the firm is properly recorded.	3.29	1.22	-.097	-.959	.128	.746
B11	All inventory will be physically counted every year.	3.17	1.21	-.053	-.743	.177	.797
B12	Controls over defect or slow inventories.	3.51	1.07	-.483	-.222	.434	.328
B13	Thorough investigation if there is any shortage/excess of inventories.	3.69	1.07	-.661	-.088	.556	.443
B14	All inventories are classified by category with specific inventory codes.	3.25	1.31	-.228	-1.038	.514	.640
B15	Purchase order is properly numbered & controlled.	3.52	0.99	-.567	.110	.644	.441
B16	Shelf space for the storage of inventories are properly labelled for easy retrieval of inventories.	3.59	1.22	-.416	-.681	.332	.667
B17	Inventory records are kept by store keeper and reviewed by manager.	3.23	1.43	-.288	-1.166	.367	.704
B18	All inventories are controlled based on the optimal quantity level to avoid shortage or excess of inventories.	3.58	3.28	-.313	-1.153	.442	.683
B19	Purchase order is compulsory for every purchase of new inventory.	3.28	1.36	-.353	-1.089	.595	.534
B20	Purchase orders must be verified by authorized employees.	3.39	1.39	-.525	-.989	.599	.571
B21	Suppliers will be evaluated in terms of price, quantity of purchase and reliability.	3.98	1.06	-1.039	.683	.831	.189
B22	Organization has a list of valid and reliable suppliers.	3.95	1.16	-1.016	.228	.744	.178
B23	Organization identifies inventory re-order point.	3.63	1.11	-.678	-.024	.720	.343
B24	All inventories received from suppliers are checked through supplier's invoice & Purchase Order.	3.79	1.20	-.944	.136	.744	.380
B25	Any discrepancies in Purchase Orders and Supplier Invoice will be reviewed regularly.	3.60	1.23	-.683	-.392	.762	.208

Next, Table 5 presents the mean scores for each items under Cost barrier; Owner/managers' attitude; and Knowledge and average mean scores for all inventory management subcomponents. The results indicate that owner/managers' attitude is perceived to be high, with the mean value of 3.52 compared to cost barrier and owner/managers' knowledge. Next, inventory management activities under Purchasing and Controlling is found as the most frequent inventory management activities applied by the respondents as opposed to Storage and Tracing. The overall inventory management practice is considered moderate with the average mean score of 3.52.

Table 5: Descriptive results for all main variables used (N=100)

No	Items	Min	Max	Mean	Std. Deviation	Skew.	Kurtosis
C1	Approximate cost of space provision for storage purposes.	1	5	2.68	1.15	.092	-.587
C2	Cost of tools/equipment related to inventory control	1	5	2.38	1.05	.191	-.936
C3	Maintenance cost for the storage/security/ventilation.	1	5	2.38	1.04	.327	-.619
C4	Cost of storage facilities (shelves, boxes and packaging).	1	5	2.50	1.09	.385	-.356
C5	Average Cost	1	5	2.49	0.87	.397	-.154
A1	A systematic inventory management is needed	1	5	3.82	1.25	-.759	-.510
A2	Effort to implement inventory management.	1	5	3.53	1.19	-.255	-.993
A3	Time taken to implement systematic inventory management	1	5	3.20	1.17	-.092	-.917
A4	Contribution of systematic inventory management to profitability	1	5	3.70	1.14	-.507	-.567
A5	Willingness to make any changes in the operations	1	5	3.34	1.22	-.311	-.807
A6	Average Attitude	1	5	3.52	0.96	-.335	-.050
K1	Level of knowledge on inventory management.	1	5	2.83	1.27	.236	-1.078
K2	Level of knowledge on inventory handling techniques	1	5	2.78	1.20	.223	-.900
K3	Training/guidance received in inventory management.	1	5	2.74	1.21	.308	-.800
K4	Average Knowledge	1	5	2.79	1.12	.292	-.832
IM1	Storage & Tracing	1	5	3.30	1.02	-.302	-.612
IM2	Purchase & Control	1	5	3.63	0.89	-.768	.401
IM3	Inventory Management	1	5	3.52	0.87	-.536	-.229

The relationship between factors and inventory management practices

This section provides the results of correlation analysis between the number of employees (Emp); education (Edu); inventory usage (Usage); inventory approach (App); inventory techniques (Tech); Cost; attitude (Att); knowledge (Know); Storage and Tracing (Stor.); Purchasing and Controlling (Purch.); and inventory management (IM). Table 4 and Table 5 also present the normality distribution for items involved in the measurement model. Normality assessment was made by assessing the measure of skewness of each item. The absolute value of skewness should be lower than 1.5 to confirm if the data were normally distributed (Zainudin, 2015). The absolute values of skewness for all items were lower than 1.5, which indicate that all of the items are normally distributed.

Table 6: Pearson correlation test for contextual factors and inventory management

Item	Emp	Edu	Usage	App	Tech	Cost	Att	Know	Stor.	Purch.	IM
Emp.	1	.429**	.201*	.135	.396**	-.152	.235*	.298**	.363**	.216*	.273**
Sig. value		.000	.045	.181	.000	.131	.018	.003	.000	.031	.006
Edu.		1	-.132	-.047	.410**	-.126	.021	.295**	.322**	.127	.199*
Sig. value			.192	.644	.000	.213	.833	.003	.001	.208	.047
Usage			1	.461**	.166	-.240*	.166	.105	.266**	.231*	.258**
Sig. value				.000	.098	.016	.100	.297	.007	.021	.009
App.				1	.181	-.149	.218*	.246*	.313**	.306**	.305**
Sig. value					.072	.139	.030	.014	.002	.002	.002
Tech.					1	-.230*	.143	.360**	.451**	.235*	.327**
Sig. value						.021	.155	.000	.000	.018	.001
Cost						1	-.134	-.050	-.241*	-.249*	-.267**
Sig. value							.184	.622	.016	.012	.007
Attitude							1	.442**	.376**	.457**	.454**
Sig. value								.000	.000	.000	.000
Know.								1	.450**	.275**	.363**
Sig. value									.000	.006	.000
Stor.									1	.811**	.921**
Sig. value										.000	.000
Purchase										1	.969**
Sig. value											.000
IM											1

Table 6 shows that seven contextual variables have significant and positive relationships with inventory management practices. The owner/managers' attitude towards inventory management and knowledge on inventory management have a moderate correlation with inventory management, which signified the crucial role of owner/managers in initiating a proper inventory management. Meanwhile, the inventory's general approach and techniques are significantly associated with inventory management, which is quite sensible in this context. The bivariate results indicate that the number of employees, education and amount of inventory usage have low and significant relationships with inventory management. Lastly, the cost factor has a negative relationship with inventory management practise due to the fact that a high cost inhibits the employment of the proper approach of inventory management. The results are acceptable in the small enterprises context due to significant constraints of resources faced by firms from this sector.

The influence of selected contextual variables on inventory management practices

The multiple regression analysis was performed to analyze the influence of the three selected contextual variables; Cost barrier; owner/managers' attitude towards inventory management; and owner/managers' knowledge on inventory management practices and to test the three proposed hypotheses. The following regression model was developed to demonstrate the influence of the independent variables on the dependent variable.

$$Y = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where Y (INVMNGT)=Inventory Management; X_1 =Cost barrier (COST); X_2 =Owner/Managers' attitude on inventory management (ATTITUDE); X_3 = Owner/Managers' knowledge on inventory management (KNOWLEDGE); and e = error term. Table 7 shows the results of the multiple regression analysis. The overall regression model explained that 22.9 per cent (adjusted R^2) of the variance in the dependent variable ($F=9.518$, $P=0.000$) and the standardized beta coefficients for all independent variables have significant influences on the inventory management practices. Therefore, all of the proposed hypotheses are supported. The following multiple regression model based on the results are as follows:

$$\text{INVMNGT} = 2.860 - 0.222\text{COST} + 0.199\text{ATTITUDE} + 0.185\text{KNOWLEDGE} + e$$

Table 7: Multiple regression analysis results on the influence of cost, attitude and knowledge on inventory management practices.

Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.479 ^a	.229	.205	.780	1.852
a. Predictors: (Constant), Knowledge, Cost, Attitude					
b. Dependent Variable: InvMngt					
ANOVA^a					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	17.361	3	5.787	9.518	.000 ^b
Residual	58.369	96	.608		
Total	75.730	99			
Coefficients^a					
	Unstandardized Coefficients		Std. Coeff.	t	Sig.
	B	Std. Error	Beta		
Constant	2.860	.415		6.898	.000
Cost	-.222	.091	-.225	-2.431	.017
Attitude	.199	.095	.218	2.105	.038
Knowledge	.185	.080	-.236	2.313	.023
a. Dependent Variable: InvMngt					
b. Predictors: (Constant), Knowledge, Cost, Attitude					

5. Conclusion

This research reports the quantitative results obtained from 100 useable responses to a questionnaire sent to a sample of 500 Malaysian micro enterprises in the retailing sector, enquiring as to the current state of inventory management practices and factors that influence the practices. Descriptive, bivariate and multiple regression analyses were carried out in order to achieve the research aims. In term of the general practices of inventory management, most respondents have adopted both the unsystematic and systematic inventory management approaches in their business. Less than 18 per cent of the respondents indicated the use of an unsystematic method and a third of the respondents utilized a fully systematic way in managing their inventory. The responses seem sensible as small enterprises sometimes made decisions based on intuition or an informal approach. Furthermore, most of the micro enterprises felt complacent with their current state of practices and have a slow revolution and adaption to the modern approach. The lack of knowledge in inventory management and cost barriers further contributed to this situation.

In terms of techniques used in inventory management, the staffs 'own experiences or 'the rule of thumb' appear to be the highest inventory management techniques, which implies the informal style of managing inventory. EOQ, bar code tagging and VMI are only adopted by a minority of the respondents. The results might be reflected by the limitation of resources and expertise frequently facing small enterprises that have hindered the practice of proper inventory management which may expose them to serious inventory problems. There are considerable consequences for not having an inventory management system in place such as retail theft, ineffective decision making and reduced performance, which may put the enterprises in an uncompetitive position. The details of the level of use of the selected inventory management practices which were measured based on two categories (inventory Purchasing and Controlling; and Storage and Tracing) through 16 selected items suggested that micro enterprises had a high level of practice on inventory Purchasing and Controlling as opposed to Storage and Tracing of inventory. The accuracy of inventories received from their suppliers and monitoring supplier performance in terms of price and quantity with a list of valid and reliable suppliers and the examination on supplier's invoice and purchase order which was a crucial procedure when purchasing inventories received a great attention among respondents.

Next, based on the correlation analysis, the results have showed that the number of employees, education, inventory usage, inventory approach, inventory techniques, cost barriers,

attitude and knowledge have significant and positive relationships with inventory management practices. The owner/managers' attitude and their knowledge on inventory management have high correlation with the extent of use of inventory management, which meant that the owner/managers played a crucial part for facilitating the development of the proper implementation of inventory management in small businesses. Cost barrier is negatively associated with inventory management practices, which implies that the cost associated with inventory management may reduce the proper inventory management in micro businesses. As small enterprises have financial challenges to develop a systematic approach of inventory management, the issues should not be taken lightly as inventory management is one of the key determinants to success. The analysis on the effects of cost barrier; owner/managers' attitude towards inventory management; and owner/managers' knowledge on inventory management on the level of the inventory management practices reveal that all factors have significant effects on inventory management. While the owner/managers' attitude and knowledge have significant and positive effects on inventory management, the cost factor is found to have a negative effect on inventory management among the micro enterprises. Hence, all three proposed hypotheses are supported. The results suggested that the unavailability of expertise as well as the cost factor may impede the application of inventory management in micro enterprises. The results provide additional empirical evidences on the use of inventory management and suggest that there is a room for micro enterprises to improve their inventory management system. The unsystematic or informal approach may reduce competitiveness due to customers' dissatisfaction or an increased cost of handling, lost, defect or slow inventories. This statistical evidence confirms the previous findings with respect to the effects of cost, owner/managers' attitude and knowledge on inventory management (Chikan and Whybark, 1990; Ayad, 2008; Strohhecker and Grobler, 2013, Ali et al., 2013; Ahmad and Mohamed Zabri, 2015; and Wallin et al., 2006).

This research has increased the knowledge of inventory management in SMEs context and it can be a starting point for further investigations in this area. The work presents new additional evidences into inventory management practices and factors that influence the application of inventory management in micro retailing enterprises. As such, this study does not only contribute new information to the body of knowledge, but also presents insightful findings on inventory management for the related policy makers in Malaysia. This study is limited to the small businesses in the retailing industry; therefore, the findings of this study are not generalized to other sectors or industries. Future studies should increase the number of sample in order to collect more reliable evidences in this area or add more contextual variables such as the effect of technologies, business strategies and culture on the application of inventory management practices within small businesses.

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The investigation of ERP and E-business effects in Thailand: A resource based view

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Keywords

Enterprise Resource Planning System (ERP), E-business, Resource Based View (RBV), Competitive Advantage, and Firm Performance

Abstract

Formulated on resource based view of the firm, the purpose of this study is to investigate the effects of enterprise resource planning system (ERP) adoption within the firm and e-business between firm and business partners for competitive advantage. The relationship between competitive advantage and firm performance is also investigated. Mailed-questionnaire is determined as a data collection instrument distributed to listed companies that are registered on the Stock Exchange of Thailand. Hence, 122 completed questionnaires are used in the analysis. The results indicate that ERP adoption within the firm and e-business between firms positively impact competitive advantage. The positive relationship between competitive advantage and firm performance is also established. In addition, this research discovers the positive effects of the introducing of ERP within the firm and e-business between firms for competitive advantage.

1. Introduction

To gain the competitive advantage, many firms attempt to invest on information technology or information systems to provide the useful information supporting for enterprise resource planning and controlling. The advantageous information systems help firms to collect data from many activities occurring from various departments within the firm. Also, it provides beneficial information to the related users and enhances the efficiency of decision making. Enterprise resource planning system (ERP) is an important tool for firm progress because it integrates firm's core business processes based on a common database management system. Management can retrieve all information throughout an organization via the database system. Therefore, departments of various functions within the firm can share and communicate among themselves to enhance the effectiveness of their business making decisions.

According to resource based view of the firm (RBV), competitive advantage and sustainable performance are effectively derived from the information and other resources of the firm (Barney, 1991). ERP is a knowledge based system, as an enterprise resource, that is developed from the organization's best practice. It contains the characteristics that appropriate the valuable, rare, non-substitutable, and inimitable. Therefore, ERP helps firm to gain competitive advantage and sustained performance (Ram et al., 2012).

As the suggestion of previous research, the full potential of ERP not only generates from the integration of subsystems within local firm, but also gains from the integration between firms (Swaminathan and Tayur, 2003). Electronic business technologies (or e-business) are ultimate solution that can create the benefit of relationships between firm and business partners. E-business technologies are defined as the applications of information and communication technology, internet based, in support of all the activities of business and enable the external activities and relationships of the business with its partners. It also supports the information exchange problem among the firms various enterprise systems. Furthermore, E-business links two (or more) firms for performing business functions such as online selling, online purchasing, coordination, and information sharing.

Prior research found that e-business technologies such as extranet, website, EDI communication, and e-commerce have positive effects on business performance (Sprano and Zakak, 2000; Phan, 2003; Grandon and Pearson, 2004; Schubert et. al., 2011). Especially, Hsu (2013) investigated the effects of ERP, e-business, and the interaction of ERP and e-business on business value. As the results, this research indicated that ERP, e-business, and the interaction of ERP and e-business positively affected business value.

As aforementioned, this research links the theoretical contribution of RBV and previous literatures, the objective of this research is to investigate the relationship between ERP, e-business and competitive advantage, and the relationship between competitive advantage and firm performance. This research collects data from listed companies registered on the Stock Exchange of Thailand. For the rests of this paper, section 2 provides literature reviews and hypothesis development. Next, section 3 provides research methodology. Section 4 shows research results and discussion. Section 5 contains implications. Finally, conclusion is provided in section 6.

2. Literature Reviews and Hypothesis Development

2.1. Resource Based View of the Firm

The resource-based view (RBV) maintains that competitive advantage and sustainable performance are effectively derived from the information and other resources of the firm (Barney, 1991). RBV is useful in determining whether a firm's strategy has created value. In this view, a unique resource enables firm to attain competitive advantage and thus, sustain the advantage over the long term. The considered resource contains four significant characteristics of being rare, valuable, non-substitutable, and inimitable. A resource is decided valuable when it enables the firm to obtain more effective of efficiency. It is rare when other firms do not possess it. Firm utilizes both valuable and rare resources to establish a superior competitive advantage. To sustain the competitive advantage over the long term, resource must be containing the characteristics of being non-substitutable and inimitable. Simply, it must be difficult to transfer or relatively immobile (Piccoli and Ives, 2005).

ERP, as an information technology resource, is considered the drivers of competitive advantage and sustain firm performance. ERP is valuable when it effectively enhances business information processing (Bradford and Florin, 2003) and provide the advantageous information enabling firm to achieve the business planning, decision making, and business objectives (Jennex et al., 2004; Rivard et al., 2006; Kobelsky et al., 2008; Masquefa, 2008; Gorla, 2010). ERP is systematically generated around the best practices within the firm and embedded in business routines. Therefore, it is difficult to imitate and transfer. Moreover, e-business is an information system formulated on internet technology such as extranet, EDI communication, and e-commerce that links organization's enterprise systems and information systems of business partners. Also, previous research found that integration of ERP and e-business has a positive impact on the business value (Hsu, 2013).

2.2. Enterprise Resource Planning System

Enterprise resource planning system (ERP) is a software package, a set of integrated business applications that are utilized to enable information flows within and between processes across the organization. The main characteristic of ERP is the integrated system designed to seamlessly integrate information flows throughout the company. Therefore, it is developed to integrate and coordinate across business functions such as sales and marketing, purchasing, inventory control, manufacturing, and accounting. Also, ERP reflects company best practices for business processes and computerizes based on client/server architecture. In addition, ERP is designed to support particular businesses such as health care, hotel, and manufacturing.

As the results of prior research, ERP has abilities on provide system quality and information quality that are key drivers for the achievements of competitive advantage (Ram et. al., 2014). Further, ERP's abilities on provide system quality, information quality, and service quality lead to intention to use ERP and also resulting in the business value (Chien and Tsaur, 2007). Consistently,

Hsu (2013) found that ERP and e-business applications enable firms to success business strategy including cost efficiency, differentiation, and intangible value. In addition, previous literatures found the relationships between ERP and competitive advantage, business value, and firm performance (Jermias and Gani, 2004; Matolcsy et. al., 2005; Kallunki et. al., 2007; Konthong and Ussahawanitchakit, 2009) Therefore, hypothesis 1 is postulated.

Hypothesis 1: Enterprise resource planning system has a positive effect on competitive advantage

2.3. E-business

E-business system is an interorganizational system that is designed to extend an organization's electronic reach beyond its own organizational boundaries to related partners such as customers and suppliers using internet communication. E-business links two firms for performing business functions such as online selling, online purchasing, coordination, and information sharing. Clearly, e-business applications include electronic data interchange (EDI), e-commerce, mobile commerce, business to business (B2B) applications, and business to consumer (B2C) applications.

Prior studies indicated that e-business system positively related competitive advantage and firm performance. Beheshti et. al. (2006) investigated the contributions of e-business applications for competitive advantage. They found the positive effects of e-business applications such as B2B and B2C for creating efficiencies and cost reduction. Likewise, Guarda et. al. (2012) discovered the positive relationship between e-commerce using database marketing and competitive advantage on customer perspective. Also, previous study found that competitive advantage is derived from e-business applications (Sprano and Zakak, 2000; Phan, 2003; Grandon and Pearson, 2004; Schubert and Woelfle, 2011). Therefore, hypothesis 2 is postulated.

Hypothesis 2: E-business has a positive effect on competitive advantage

2.4. Competitive Advantage

Competitive advantage is described as positional superiority based on organizational strategies which are the combination of differentiation and/or cost leadership (Day, 1984). Competitive advantage is also regarded as the ability to gain returns on investment continually above the industry average (Porter, 1985). To gain the sustainable competitive advantage, firm should persistently obtain the superiority over competitors and diminish competitive abilities of its rivals. In accordance with RBV, competitive advantage can be achievable based on firm specific resources. Firm utilizes both valuable and rare characteristics of resources to acquire the superior advantage. Further, non-substitutable and inimitable resources lead competitive advantage to the sustainability. Prior research indicated that information system adoption created competitive advantage through the business value creation such as lower costs and product differentiation (Griffiths and Finlay, 2004; Doherty and Terry, 2009; Kontong and Suwan-natada, 2012). Hence, the related hypothesis is postulated.

Hypothesis 3: Competitive advantage has a positive effect on firm performance

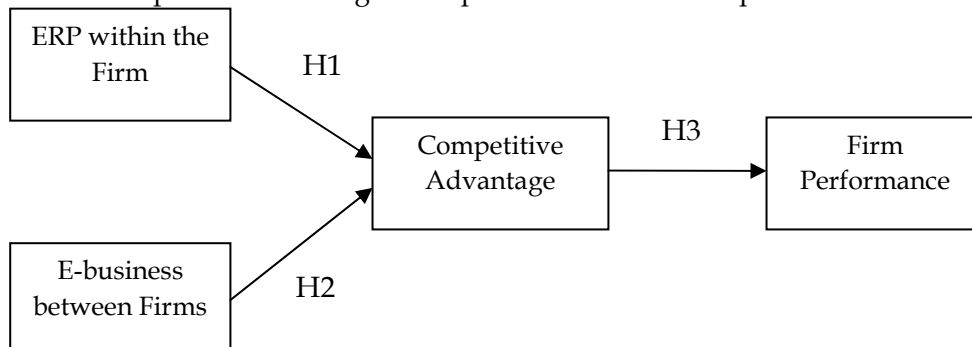


Figure 1: Research Model

3. Data and Methodology

3.1. Sample and Data Collection

This research uses mail-questionnaire as a data collection instrument distributed to 572 listed companies registered on the Stock Exchange of Thailand. Each questionnaire contains five parts including respondent personal data questions, firm demographic questions, questions required for the perceptions of ERP within the firm, questions required for the perceptions of e-business between firms, and questions required for the perceptions of competitive advantage and firm performance.

According to data collection procedure, 9 mails were returned because they are undeliverable. However, 122 complete questionnaires are usable making the response rate of 21.33%. As the suggestion of Aaker et al. (2001), the acceptable criteria should be greater than 20% that is appropriately satisfied. In addition, the non-response bias between early and late respondents is critically concerned. This study equally separates the returned questionnaires into two groups and statistically examines using t-test comparison. Hence, the result indicates that there is no significant different between both groups of respondents.

3.2. Validity and Reliability

To be acceptable for the results, this research concerns the validity and reliability of the data collection instrument. Confirmatory factor analysis is employed to test the validity of data in the questionnaire. As suggested by Nunnally and Berstein (1994), the acceptable cut-off score of factor loading is 0.40. As a result, this research finds that all factor loadings of each construct are greater than 0.40 ranging from 0.574 to 0.914 and are statistical significant, as presented in Table 1. Therefore, the measurements of all constructs in conceptual model are satisfied.

To assure the reliability, Cronbach's alpha coefficient is designated to assess the internal consistency and the stability of the developed instrument. As suggested by Nunnally and Berstein (1994), the coefficient should be higher than 0.60. Evidently, the Cronbach's alpha coefficients of each construct are greater than the accepted criteria indicating that all constructs are acceptable. Simply, Table 1 provides the Cronbach's alpha coefficients ranging from 0.786 to 0.918.

Variables	Factor Loadings	Cronbach's Alpha Coefficients
ERP within the firm (ERP)	0.772-0.914	0.899
E-business between firms (EB)	0.547-0.862	0.786
Competitive Advantage (COM)	0.816-0.891	0.918
Firm Performance (FPM)	0.611-0.873	0.912

Table 1: Results of validity and reliability test

3.3. Statistical Techniques

To test the postulated relationships, this study employs the ordinary least squared regression to estimate the parameters in hypothesis testing. This statistical analysis is appropriate for examining the relationship between independent and dependent variables which are categorical and interval data (Hair et al., 2006). Hence, all hypotheses in this research are developed into two statistical equations depicted as follows:

$$\text{Equation 1: COM} = \alpha_1 + \beta_1\text{ERP} + \beta_2\text{EB} + \beta_3\text{ERP*EB} + \beta_4\text{AGE} + \beta_5\text{SIZ} + \varepsilon_1$$

$$\text{Equation 2: FPM} = \alpha_2 + \beta_6\text{COM} + \beta_7\text{AGE} + \beta_8\text{SIZ} + \varepsilon_2$$

Where:

ERP	=	ERP within the firm
EB	=	E-business between firms
COM	=	Competitive Advantage
FPM	=	Firm Performance

AGE = Firm Age (Control Variable)
 SIZ = Firm Size (Control Variable)

4. Results and Discussion

4.1. Correlation Analysis

For the examination of multicollinearity problems, this study employs Pearson Correlation to evaluate the correlation coefficients among independent variables. The results from Table 2 show that the coefficients among independent variables are smaller than 0.80. As suggested by Hair et al. (2006), there is no multicollinearity problem in this study. In addition, this study also employs the variance inflation factors (VIFs) to examine the multicollinearity concerns. Thus, the VIFs for all variables are smaller than 10 which indicate that the independent variables are not correlated with each other (Neter et al., 1985).

Variables	ERP	EB	COM	FPM	AGE	SIZ
Mean	4.293	4.027	3.736	3.706	1.443	1.369
S.D.	.617	.609	.695	.622	.499	.484
ERP						
EB	.552***					
COM	.475***	.573***				
FPM	.484***	.570***	.646***			
AGE	-.053	-.145	.065	.166		
SIZ	.035	-.142	.060	.031	.550***	

*** p < 0.01

Table 2: Results of validity and reliability test

4.2. Effects of ERP and e-business on Competitive Advantage

Table 3 shows the positive relationship between ERP within the firm and competitive advantage ($\beta = 0.219$, $p < 0.05$). Consistently, ERP has abilities on provide system quality and information quality that are key drivers for achievement of competitive advantage (Ram et. al., 2014) and result in business value creation (Chien and Tsaur, 2007; Konthong and Ussahawanitchakit; 2009). Hence, hypothesis 1 is supported.

Independent Variables	Dependent Variable Competitive Advantage ^a
ERP	.219** (.093)
EB	.471*** (.104)
ERP * EB	.104** (.107)
Firm Age (AGE)	.112 (.178)
Firm size (SIZ)	.058 (.182)
Adjusted R ²	0.361

** p < 0.05, *** p < 0.01

^a Beta coefficient with standard errors in parenthesis

Table 3: Results of OSL regression analysis of equation 1

The results from Table 3 also indicate that e-business between firm and its partners positively affects competitive advantage ($\beta = 0.471$, $p < 0.01$). Consistent with prior research, there are positive relationship between e-business application and competitive advantage (Sprano and Zakak, 2000; Phan, 2003; Grandon and Pearson, 2004; Schubert and Woelfle, 2011). *Therefore, hypothesis 2 is supported.* In addition, this research also investigates effect of integration of ERP within the firm and e-business between firms for competitive advantage, according to the implications of Hsu (2013). The results also show the positive relationship between the integration of ERP and e-business and competitive advantage ($\beta = 0.104$, $p < 0.05$).

4.3. Effect of Competitive Advantage on Firm Performance

As the results shown in Table 4, competitive advantage significantly and positively influences firm performance ($\beta = 0.640$, $p < 0.01$). In accordance with previous studies, implemented IS supports strategic goals such as cost reduction and the differentiation. Therefore, these competitive advantages enable firms to persistently sustain their performance (Klein, 2007; Barratt and Barratt, 2011; Cheng, 2011). *Respectively, Hypothesis 3 is supported.*

Independent Variables	Dependent Variable Firm Performance ^a
Competitive Advantage (COM)	.640*** (.069)
Firm Age (AGE)	.184** (.165)
Firm size (SIZ)	.108 (.170)
Adjusted R ²	0.427

** $p < 0.05$, *** $p < 0.01$

^a Beta coefficient with standard errors in parenthesis

Table 4: Results of OLS regression analysis of equation 2

5. Implications

5.1. Theoretical Implications

To generalize the implications of RBV, this study investigates the impacts of integrated information systems, as IT resources, on competitive advantage. In details, this study evaluates the effects of ERP adopted in various functions within the firm and e-business links intra-system and external partners. Additionally, this study also investigates the effects of the integration of both internal and external system and also discovers a positive relationship.

5.2. Managerial Implications

As the results, firms should spend on enterprise system investment and attempt to coordinate their systems with other related applications such as e-commerce, EDI, and mobile commerce that are communicate to the related business partners (customers and suppliers) to gain more competitive advantage.

6. Conclusion

The purpose of this study is to investigate the effects of ERP and e-business application for competitive advantage and firm performance, based on RBV theory. As the result of Hsu (2013), this research develops ERP, e-business, and the integration between both systems as independent variables and designates competitive advantage as dependent variable. The relationship between competitive advantage and firm performance is also examined. Based on literature review, four hypotheses are postulated and tested using OLS regression analysis. The results support all hypotheses and implications of this study are also provided.

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Higher Education trade, liberalization and GATS commitments in the Arab Gulf Region: Challenges and regulatory reforms

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Keywords

Higher education, General Agreement on Trade in Services (GATS), regulatory reforms, education hubs

Abstract

Deregulation, privatization and the change in international rules on trade in services led to the increase in the number of private higher education institutions and international branch campuses in the Arab Gulf region. With the inspiration to shift to a knowledge-based economy and to prepare graduates to meet the needs of the public and the private sectors, recent initiatives in higher education in these countries have been either mostly state-driven or mostly market-driven, with varying degree of success. These initiatives required changes in the regulatory environment and did not fully address the challenges faced in the higher education sector. The paper examines the rationales and strategies used by six countries in the Arab Gulf, which are working towards positioning themselves as regional education hubs, highlighting the challenges and the areas that require further study.

1. Introduction

The number of students and institutions involved in higher education trade cross-national boundaries is growing rapidly. Recently, attention has been focused on countries seeking to recruit foreign universities to start up branch campuses as part of a government endorsed regional educational hub. In the Arab region, several countries have made a significant effort to recruit international students and to become favored destinations for students within their region. According to the UNESCO Institute of Statistics, the Arab Republic of Egypt, the Kingdom of Saudi Arabia and the United Arab Emirates have been active in recruiting international students and hosted 4% of the global share of mobile students in 2012. At the same time, the Kingdom of Saudi Arabia is also one of top five countries of origin mobile students in the world. Mobile students are those, which are not residents or citizens of the country where they study. At the regional level, the United Arab Emirates outpaced the United Kingdom in attracting students from the Arab states, becoming the third most popular destination (after France and the United States) for students from the region (UNESCO Institute of Statistics: 2012).

Educational reforms and initiatives in the Arab Gulf region in particular have drawn much attention. Dakhli and El Zohairy (2011) attribute the increase in the number international branch campuses and private higher education institutions in Arab Gulf in general to push and pull factors. The advancement of internationalization associated with the change in international rules on trade in services, which are introduced by the World Trade Organization (WTO) and the General Agreement on Trade in Services (GATS), in addition to expending revenue, prestige and the move towards a service-based economy are seen as the main push factors. Pull factors include the increased appeal of Western-based education, the rise of English language instruction and deregulation. Yet most of what have been written on the Arab Gulf were from foreign universities' perspectives, overgeneralize and underestimating the differences found between the Arab countries in this area.

This paper aims to examine trade in education in the six countries in the Arab Gulf that constitute the members of the Gulf Cooperation Council (GCC), their formal commitments under GATS and the current educational initiatives undertaken by these states, highlighting the challenges faced in achieving their inspirations. The paper aims to fill the gap in the literature as Night and

Murshidi (2011) pointed out there is little analysis of cross border education developments and no assessment of what make a hub sustainable or successful. Published government educational reports, international development reports, and peer-reviewed literature on students' mobility and regional hubs were consulted for both the GCC and individual member states of the GCC.

2. GCC Data and Statistics

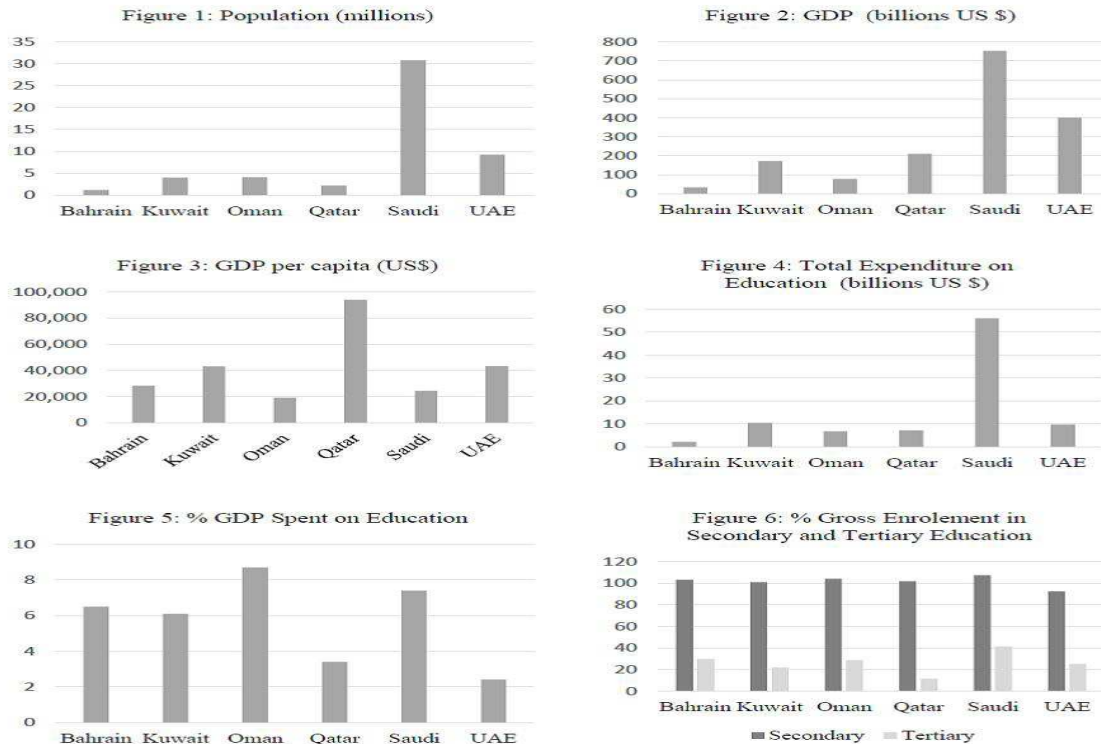
The GCC is the most advanced example of sub regional integration in the Arab region and in 2008, the GCC declared common market status, aiming to create a single environment where citizens of member countries enjoy equal rights and privileges, including the rights to engage in various economic activities and services. In terms of political stability, the GCC members, which consist of the Kingdom of Bahrain, the State of Kuwait, Sultanate Oman, the State of Qatar, the Kingdom of Saudi Arabia, and the United Arab Emirates, are less vulnerable to collapse and conflicts compared to other countries within the Arab region according to the fragile state index. This index ranks countries on a range of categories labeled "Sustainable", "Stable" "Warning" and "Alert" based on several social, economic and political indicators. Romani (2009) also pointed out: "The GCC countries are described by many as islands of wealth, stability and freedom in an ocean of turmoil and harsh dictatorship" (Romani, 2009, p. 5). All GCC member countries are monarchies and have open economies with free trade and capital movements and an exchange rate pegged to the US dollar, either directly or indirectly. The degree of trade openness varies, as indicated by the ratio of total exports and imports to GDP, which ranged from 82 percent in the Kingdom of Saudi Arabia to 176 percent in the United Arab Emirates, according to World Bank Statistics of 2014. Other major common economic characteristics include the high dependence on hydrocarbon, high per-capita GDP, high dependency on oil revenues in financing public expenditures, large public sector and high reliance on foreign labor that constitute 90-80 percent of the total population in Qatar and the United Arab Emirates. In 2014, the GCC had a population of about 51.6 million and a GDP of about US\$ 1652.5 billion (Figures 1 & 2). Per-capita GDP in 2014 ranged from about US\$ 19,002 in Oman to US\$ 93,965 in Qatar, as presented in figure (3).

Diversification away from the hydrocarbon sector remains a common objective for all GCC members and although the GCC has identified economic cooperation and integration as an integral part of its agenda since its establishment in 1981, its members compete with each other in different sectors such as finance, transport and downstream energy. In the process of moving from a hydrocarbon-based economy to a knowledge led economy, the United Arab Emirates, the State of Qatar and the Kingdom of Bahrain seek to be positioned as a regional education hub within the Arab region. The latter faces a strong challenge in competing with its neighboring countries, which started their regional education hub initiatives earlier (knight and Morshidi: 2011). In 2014, total expenditure on education ranged from about US\$56 billion in the Kingdom of Saudi Arabia to US\$2.2 billion in the Kingdom of Bahrain as shown in figure (4). This is understandable, since the former is the most populated with a total population of 30.8 million, while the total number of population in the latter stood at 1.2 million in 2014. Figure (5) displays that the percentage of GDP spent on education was the highest in Oman, followed by the Kingdom of Saudi Arabia and the Kingdom of Bahrain in 2014.

With regard, to access and participation in higher education, the tertiary gross enrolment ratio (GER) was relatively higher in Saudi Arabia and lower in Qatar, ranking 64 and 112 respectively out of the 148 countries studied in the Global Competitiveness Report of 2013-2014, which is published by the World Economic Forum (Figure 6). GER in tertiary education is the percentage of the total enrolment within a country in tertiary education regardless of age of the total population of the five-year age group following on from secondary school leaving. While the Kingdom of Saudi Arabia made a significant improvement in its tertiary GER and global ranking, 57.5 and 44 respectively, Qatar tertiary GER increased only by 4% and was ranked 103 out of the 144 countries studied in the Global Competitiveness Report of 2015-2016. The Kingdom of Bahrain and the state of Kuwait made some progress during this period, their tertiary GER increased from 29.8 to

33.5 and from 21.9 to 28.5 respectively. On the other hand, tertiary GER decreased from 28.7 to 28.1 in Oman and from 25.2 to 16.8 in United Arab Emirates. Countries with low tertiary GER usually have low secondary GER and vice versa. While tertiary GER represents existing domestic capacity and secondary GER represents the potential demand for higher education. All the GCC countries had attained a relatively high participation rate in secondary education in 2013- 2014, exceeding 100% in all member countries except the United Arab Emirates. GER can exceed 100% due to the inclusion of over-aged and under-aged students because of early or late school entrance and grade repetition. This means that all these countries have a relatively high potential excess demand for higher education that was not reflected in the tertiary GER.

GCC Statistics in 2014



Sources: WEF Global Competitiveness Reports, World Bank & National Statistics

3. GCC's Commitments in Educational Services under GATS

The significant increase in the supply of foreign higher education services can be partially attributed to the work of the WTO and GATS, which were established following the conclusion of the Uruguay Round of General Agreement on Trade and Tariffs (GATT) in 1995. GATS aims to regulate the liberalization of trade in twelve service sectors including education. Trade in education as well as other services is classified into four modes: cross-border supply, consumption abroad, commercial presence, and the movement of natural persons. Cross-border supply refers to movement of programs through cross-border cooperation in program running and online learning programs. Mansheng (2009) identified several common forms of cross-border movement of programs, which include selling programs to foreign institutions or franchise institutions to carry out such programs and offering sister courses in which students register with a local education institution and learn some courses in their home country before going abroad for further studies. Consumption abroad refers to students consuming education in foreign countries. Commercial presence includes establishing higher education institutions or jointly running them abroad. Some profit seeking institutions have acquired foreign private higher education institutions to expand in overseas markets. Others opened campuses abroad and cooperated with local institutions in running

academic institutions and offering sister courses in which students register with a foreign education institution and learn some courses in their home country before going abroad for further studies. The presence of natural persons refers to lecturers that temporarily travel abroad to teach particular courses.

Until recently, GCC member countries engaged in external trade negotiations on a unilateral basis. In 2005, following the signing of the Custom Union Agreement of 2003, GCC member states agreed to coordinate all future external trade negotiations through the Secretariat, which is an independent administrative and executive body with a budget shared equally among member states. The GCC encompasses three main bodies, including its Secretariat. These are the Supreme Council, which comprises the heads of the Gulf States and the Ministerial Council of the Foreign Ministers of the Gulf States. The former meets twice annually to provide policy directions and its decisions are passed with a unanimous vote. The latter holds quarterly meetings to propose policies and prepare recommendations. There are also a number of committees (Financial and Economic Cooperation, Education, Health, and Labor and Social Affairs councils) at the ministerial level, involved in preparing studies and submitting recommendations to the Supreme Council. Although collective negotiation of trade agreements help increase their bargaining power and ensure consistency with the terms of the customs union, it has been argued that with the lack of a clear and effective mechanism to reach internal consensus among the GCC members, final agreements are likely to be watered down (Rouis, Al-Abdulrazzaq and Carey: October 2010). The current GCC's commitments to GATS vary from one country to another because members have joined the WTO at different time. On the one hand, the Kingdom of Bahrain is a net service exporter and has been a WTO member since 2001 and therefore it has undertaken modest commitments under the GATS (Rouis, et al.: October 2010). On the other hand, the WTO approved the Kingdom of Saudi Arabia's application for membership after 12 years of negotiations in 2005. Oman and the Kingdom of Saudi Arabia are net importer of services and both have undertaken the most comprehensive commitments under the GATS including the education services as shown in Table (1).

Table 1: GCC's Commitments in Educational Services

Country	Primary education services	Secondary education services	Higher education services	Other education services	Other education services
Kingdom of Bahrain					
State of Kuwait					
Sultanate Oman	X	X	X	X	
State of Qatar					
Kingdom of Saudi Arabia	X	X	X	X	X
United Arab Emirates					

Source: World Trade Organization

The Kingdom of Bahrain, the State of Kuwait, the State of Qatar and the United Arab Emirates did not make commitments to liberalize trade in education, which can be attributed to the irreversible nature of these commitments that can restrict their freedom to develop national education policy. Bashir (2007) highlighted several concerns that make developing countries hesitant to commit to trade liberalization in higher education in particular. These concerns include the weaknesses in their domestic regulatory systems, influx of low quality foreign providers and the possible negative impacts of foreign competition on the low funded domestic higher education institutions in developing countries, with foreign higher education institutions from industrialized countries gaining access to their service markets without gaining similar access to the markets of industrialized countries. Furthermore, while foreign competition provides individuals with access to wider educational options of higher quality, it may also result in growing inequity in access to higher education with public universities catering increasingly to students from disadvantaged backgrounds while external providers target richer students.

However, regardless of whether WTO members schedule commitments or not, there are three general obligations that exist in GATS and apply to all services sectors. These are most favored

nation treatment, transparency and dispute settlement. Article II of the GATS states that “With respect to any measure covered by this Agreement, each Member shall accord immediately and unconditionally to services and service suppliers of any other Member treatment no less favorable than that it accords to like services and service supplier of any other country”. However, before the agreement entered into force, WTO members were allowed to seek exemptions, which are subject to re-negotiations and periodic review by the Council for Trade in Services every five years and should not in principle exceed 10 years. New members are also allowed to seek similar exemptions at the time of their accession. To increase transparency, GATS requires all members to publish all related policies and regulations. Members must also respect the decisions of arbitrators in case a dispute was referred by the Council on Trade and Services for arbitration on a matter that falls within the scope of GATS.

In addition to GATS general obligations, there are sector specific obligations that concern market access and national treatment and only apply to sectors specified by members. Although member countries need to comply with the WTO’s key principles related to market access and national treatment, each country participating in GATS can determine limitations on market access and national treatment for each committed sector and mode of supply. Both Oman and Kingdom of Saudi Arabia have listed some limitations on market access and national treatment. For instance, commercial presence is allowed in the form of a company incorporated in Oman with foreign equity up to 70%. There are also specific measures concerning entry and temporary stay of natural persons who fall into one of the following two categories: business visitors and employees of juridical persons. Purchase of land and real estate is not permitted to foreign companies and foreign individuals and companies with foreign equity exceeding 70% may be required to pay a higher rate of income tax as compared with wholly Omani owned companies. In the Kingdom of Saudi Arabia, foreign investors are allowed to own real estate and to carry on their activities in the Kingdom under the Foreign Investment Law and in accordance with the laws and regulations governing foreign ownership of real estate. While Saudi entities and Saudi individuals are subject to Zakat, non-Saudi business entities and foreign natural persons are subject to income tax and some subsidies on certain services are available to Saudis only. In addition, there are specific measures concerning entry and temporary stay of natural persons in the Kingdom of Saudi Arabia who fall into one of the following categories: business visitors, intra-corporate transferees, contractual service suppliers, installers and maintainers.

In general, GCC commitments made in higher education have been low. This can also be attributed to the fact that GATS excludes services in the exercise of governmental authority and until recently higher education in all GCC member states was provided by the government as the sole supplier and not on a commercial basis. Moreover, the concerns related to the treatment of higher education as a public or as a tradable good were responsible for the slow pace of negotiations and the progressive liberalization in education services in both the Uruguay and Doha rounds. Knight (1999) wrote, “With the massification of higher education, increasing at an exponential rate, there is strong interest on the part of large and small countries to make the export of education products and services a major part of their foreign policy. In fact, we see major shifts in foreign policies where education was primarily seen as a development assistance activity or cultural program to one where education is an export commodity” (Knight: 1999, p.19). Tilak (2008) pointed to the risks associated with the marketization of higher education, which include, weaken governments’ commitment to public funding of higher education with the rapid growth of privatization and the extinction of some important unmarketable disciplines of study that do not generate revenues.

Furthermore, other topics usually overshadow trade in education in the WTO rounds. According to Verger (2009), “the most important WTO rules for negotiating services are contained in the GATS and, specifically, in the ‘Progressive Liberalization’ section of the agreement” (Verger: 2009, p.383). To achieve this, WTO members participate in successive rounds of negotiations, in

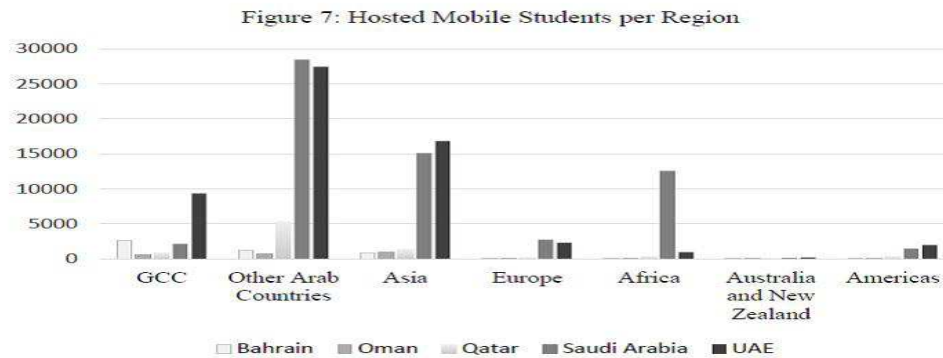
which education and other services sectors are negotiated in relation to all the topics covered in each negotiation round and not by sector. In 2008, disagreements related to agriculture, industrial tariffs, non-tariff barriers, services, and trade remedies stalled the progress of negotiations of current WTO round of negotiations round which was launched in Doha, Qatar in 2001. Nevertheless, because there are general obligations that exist under GATS and apply to all service sectors, these obligations may restrict GCC flexibility to make certain policies. Birtwistle (2006) identified several actions that could challenge these obligations and constitute barriers to trade liberalization. These actions include all legislation that discriminates against external providers in higher education such as subsidies for local providers that are not available to foreign providers, and any licensing requirements, accreditation or quality assurance criteria that are unique to foreign providers.

4. Recent Reforms and initiatives in Higher Education

Regardless of the formal commitments in education under GATS, the Kingdom of Saudi Arabia and United Arab Emirates were the most active in the recruitment of international students as shown in Figure (7). Although the Kingdom of Saudi Arabia has the highest number of mobile students from abroad studying in the country, the percentage of these students of the total tertiary enrolment was much higher in the United Arab Emirates and Qatar, 44.8% and 39.9% respectively (Table:2). Qatar and the United Arab Emirates were also the most active in the recruitment international universities as a part of their inspirations to serve as education hubs in the process of moving to knowledge/services oriented economies. Recent reforms and initiatives in higher education are either mostly state-driven (Saudi Arabia), or mostly market-driven (United Arab Emirates). These reforms and the top down decision-making processes in education in the GCC attracted criticism and raised some concerns. This top-down approach is often being criticized for lacking discussion, collection of information, policy analysis and systematic recognition of problems (Khodr: 2012). Weber (2015) also referred to the conflict of interests that could result from having ministries of education in the Gulf in charge of both making improvements and judging their effectiveness and their negative impacts on the transparency and objectivity of the policy making process. Kirk (2015) argued, "Much of the education reform has been sporadic, isolated and lacking in coherence and strategic vision". He explained that these reforms are predominantly top-down mandated changes that replicate foreign models and did not stimulate innovation in local contexts. Weber (2015) raised a similar concern. He wrote, "The establishment of a foreign regulatory environment further increases the risk of transmissions of education methods and administrative models that have not been adapted to the region's unique culture" (Weber: 2015, p.154).

Furthermore, several authors stressed the huge government stake in higher education, political instability, security considerations and the associated constraints imposed by the different governments on academic freedom within the Arab region (Romani:2009, Dakhli and El Zohairy: 2011, and Weber: 2015). Nevertheless, there is a consensus that the arrival of foreign universities benefited the countries in the GCC. Dakhli and El Zohairy (2011) argued that "the arrival of many leading North American and other international institutions in the GCC has given the higher education industry the shot in the arm that it badly need" (Dakhli and El Zohairy: 2011, p.51). Higher education in the Arab Gulf region has long been criticized for failing to meet the inspiration of its youth, emphasizing inputs rather than outputs with low return on educational investment and for failing to meet the needs of either the public or the private sectors (Coffman: 2003). One of the issue that has been raised by Weber (2015), the fact that the majority of students (60%-70%) attending Gulf universities are female and may not add their skills to the labor market due to the limited number of religious and socially acceptable professions open to women. Furthermore, the proportion of the workforce made up by locals continues to shrink as well-qualified expatriate filled many positions where there were often shortage in national skills. Romani (2009) referred to the low research output and the weak emphasis on vocational training.

The creation of employment opportunities and higher value added jobs also remain major challenges that face all GCC members states as many of the new jobs created are being filled by low paid unskilled foreign workers mainly in the construction sector (The International Monetary Fund: 2011). Another major challenge facing policy makers in the GCC is the readiness of students to enter higher education. The low mean student performance in each Gulf country compared to the international mean was evident in the International Mathematics and Science Study (TIMSS) and raised serious questions about the efficiency of the school systems in the Gulf (Wiseman and Al-bakr: 2013). The low GER in tertiary education in the GCC member states also raised questions about the readiness of students to enter higher education. Their tertiary GER were much lower than the worldwide tertiary GER, which was 32% in 2012 and had reached 50% in 54 national systems (Marginson: 2016). It has been also argued that Gulf youth are less motivated to succeed and may see little value of higher education in the GCC members that provide them with generous social support schemes and guaranteed government jobs for school leavers (Kirk: 2015). However, despite all of these similarities, each country has adopted a different approach to reforming higher education due to their varying socioeconomic and demographic conditions.



Source: UNESCO Institute of Statistics, February 2016

Table 2: International Mobility of Students

Country	Total Number of Students Abroad	Outbound Mobility Ratio*	Total Number of Mobile Students Hosted	Inbound Mobility rate*
Kingdom of Bahrain	4,481	13.2	5,036	13.2
Kuwait	16,799	23.4	NA	NA
Oman	11,294	14.5	2,579	3.0
Qatar	5,039	24.1	10,078	39.9
Kingdom of Saudi Arabia	73,548	5.4	71,773	4.8
United Arab Emirates	8,530	6.4	64,119	44.8

* Outbound Mobility Ratio is the total number of students abroad expressed as a percentage of total tertiary enrolment in that country.

* Inbound Mobility rate is the total number of mobile students from abroad studying in the country expressed as a percentage of total tertiary enrolment in that country.

Source: UNESCO Institute of Statistics, February 2016

4.1 The Kingdom of Bahrain

Until the late sixties, Bahraini students had to travel abroad in order to pursue their higher education because there were no higher education institutions in Bahrain. In 1968 Bahrain established the Gulf Polytechnic and the Higher Institutes for male and female teachers. The latter developed into the University College of Arts, Sciences, and Education in 1978. In 1986, the University of Bahrain was established by merging the Gulf Polytechnic and the University College of Arts, Sciences and Education. The Second public higher education institution is Bahrain Polytechnic, which was established in 2008 as one of the initiatives taken by the Kingdom to reform Higher education since 2001. Other initiatives encompassed the Higher Education Strategy, the National

Qualifications Framework, and the National Authority for Qualifications and Quality Assurance for Education & Training (QQA), which has been conducting both institutional and programs reviews since 2008. Additionally, there are one regional university (Arabian Gulf University), which was established in 1984, and ten private higher education institutions that were established following the liberalization of the higher education sector in 2001. One of the main goals of the Higher education strategy is to position the Kingdom of Bahrain as a regional hub for quality private higher education with a strong brand.

Private higher education institutions include AMA International University of Bahrain, a branch of the Philippine-based AMA Computer University, the Arab Open University- Bahrain branch and the Royal College of Surgeons in Ireland - Medical University of Bahrain, which is the second such school in Bahrain. In 2011-2012, the number of students admitted at the University of Bahrain reached 15,393, which exceeded the total number of students admitted in the other public and private universities (14,287) and 54% of these students were enrolled in Business and Finance (Higher Education Council, 2012). Despite the closing down of three private universities (Birla, Delmon and New York Institute of Technology), the total number of students in higher education for the academic year 2014-2015 increased by 18% from 32,327 in 2011-2012 to 38,260 in 2013-2014 with the gender breakdown showing 60% for females and 40% for males (Higher Education Council: 2015). Moreover in 2012 the Higher Education Council which is in charge of licensing and accreditation has suspended enrollments and capped students number in some private institutions to protect the future of students and to give these institutions the time to implement improvement plans. Institutional accreditation is still in its pilot stage.

4.2 The State of Kuwait

Since 2003, the state of Kuwait has encouraged the development of a private university sector that works in collaboration with high quality international partners as a means of meeting local demand for university places. Despite its effort to create additional places in the public sector, the increase in the number of qualified students exceeded the absorption capacity of Kuwait University, which is the nation's only public university. The University's facilities are currently geographically spread over six campuses and include 17 colleges offering 76 undergraduate and 71 graduate programs. The total number of enrolled students in Kuwait University reached 37,053 students for the academic year 2015-2016. Post secondary education also comprises technical and vocational courses offered by the Public Authority for Applied Education and Training (PAAET), which is a state institution offering mainly 2 years training courses that allow the graduates to enter the workforce as well as other programs with shorter duration, depending upon the requests of the public and private sectors. It encompasses five colleges for basic education, business studies, technological studies, nursing and health sciences, in addition to ten training institutes, including the Higher Institute of Energy, the Industrial Training Institute and the Construction Training Institute. The number of enrolled students reached 45,654, 7,745 of which are non-Kuwaitis in 2015, as indicated on the PAAET website. Although PAAET is the largest post-secondary institution in Kuwait in term of enrollment, vocational training and education in Kuwait and the Arab Gulf in general is still seen as a second-best education system and is "tainted by social stigmas" as Bilboe (2011) pointed out.

The Private University Council of Kuwait has accredited eight private institutions since 2005, namely: Gulf University for Science and Technology, Kuwait-Maastricht Business School, Arab Open University- Kuwait Branch, Australian College at Kuwait, American University of Kuwait, American University of Middle East, American College of Middle East and Box Hill College of Kuwait. The total number of admitted students in the eight institutions reached 19,596 in 2013 according to published statistics of the Private University Council of Kuwait. As a means to ensure academic standards and quality of higher education, private universities are required to operate in collaboration with internationally reputable foreign partners and all their programs are offered in

English. Therefore, private universities have affiliated themselves with American, European and Australian institutions such as the American University of Kuwait affiliation with Dartmouth College, American University of the Middle East's affiliation with Purdue University, and the Arab Open University partnership with the UK Open University, which validates all its offered degrees. Other foreign partnerships include the Gulf University for Science and Technology's affiliation with the University of Missouri at St. Louis and the Australian College of Kuwait cooperation with a number of different Australian partners in different technical fields. In addition a number of foreign higher education institutions have been established and are managing branch campuses in Kuwait in cooperation with local partners such as the University of Maastricht Business School of Netherlands and the Box Hill Institute of Australia (Clark: September 1, 2013).

4.3 Sultanate Oman

Oman has a diverse higher education system including over forty post-secondary public educational institutions offering academic, technical and vocational programs. These institutions include the Colleges of Applied Sciences, Colleges of Technology, the Ministry of Health Educational Institutes and Ministry of Defence institutions (Goodliffe, Trevor-Roper, Razvi and Al Habsi: 2015). There is also one public comprehensive university, Sultan Qaboos, which was founded in 1986. Currently, Sultan Qaboos University has nine colleges; namely Medicine, Engineering, Agriculture, Education, Science, Arts, Commerce, Law and Nursing. Until 2008, these Colleges offered bachelor's and master's degrees in the different disciplines. PhD studies were recently introduced in the fields of Agriculture, Marine Sciences, Medicines, Engineering and Science. Since the mid 1990s, the government decided to encourage the private sector in Oman to form universities and colleges by providing supports in the form of land grants, certain customs exemptions and a matching grant of 50% of capital contribution to a maximum amount of three millions Omani Riyal for private universities. These policies led to the establishment of 27 private colleges and universities with current enrollments of some 35,000 students. Most of these private institutions focus on popular studies such as computer sciences and business administration. They are also usually affiliated with European, Australian or American institutions and the language of instruction is mainly English.

In order to monitor, improve quality and increase the prestige of the degrees awarded by private institutions in Oman, the Ministry of Higher Education requires private higher education institutions to have academic affiliation agreements with reputable universities. To enhance quality and the accountability of higher education institutions, a set of institutional standards were developed in 2004 but the accreditation process was not fully implemented. In 2008, Oman Academic Accreditation Authority (OAAA) introduced Quality audits to provide formative feedback to higher education institutions before proceeding with the accreditation (Ross and Trevor-Roper, February 2015). The first cycle of quality audits commenced in 2008 and ended in 2014, and currently OAAA is in the process to develop institutional accreditation and programs accreditation applicable to all higher education programs in Oman (Goodliffe, Trevor-Roper, Razvi and Al Habsi: 2015).

4.4 The State of Qatar

In 1973, the first national university, Qatar University, was established as a teachers' college and it has expanded its program offerings since then to include both graduate and undergraduate programs in Education, Business and Economics, Arts and Sciences, Engineering, Sharia and Islamic Studies, Pharmacy, Law, and Medicine. In 1995 the Qatar Foundation for Education, Science & Community Development (QF) was set up and following the approval of Qatar National Vision (QNV) in 2008, QF was given a stronger mandate in the creation of a knowledge economy. QNV identified education as core driver for economic diversification and aimed to expand participation in post-secondary education. For this purpose, the Community College of Qatar (CCQ) was established and started to enroll students in 2010, offering associate degree tracks in Arts, Science and Applied Science. The CCQ has separate campuses for male and female students and operates in conjunction with the Houston Community College in Texas. In 2014, the total number of students in Qatar

university and Community college reached 18,624 of those 13,214 female and 5,410 male (Ministry of Development, Planning and Statistics, 2014). The need for more men to further their education and to give incentives to the private sector to bring more Qataris on board were highlighted in Qatar's National Development Strategy.

Several initiatives related to the creation of a knowledge economy are currently under the QF regulatory umbrella, which include science incubators (Qatar Science and Technology Park), Qatar National Research fund, Academic journals publishing platform (QScience), research institutes (e.g. Qatar Biomedical Research Institute and Qatar Computing Research Institute) and a complex of international branch campuses (Education City). Several universities have opened branch campuses in Qatar namely, Virginia Commonwealth University, Weill Cornell Medical College, Texas A&M University, Carnegie Mellon University, Georgetown University, Northwestern University in Qatar, HEC Paris, University College of London, College of North Atlantic-Qatar, the University of Calgary-Qatar and Dutch Stenden University. In addition, Hamad Bin Khalifa University is a QF member and currently delivers a range of research education Master's and Doctoral programs through its interdisciplinary graduate colleges: College of Science, Engineering and Technology, College of Humanities and Social Sciences, College of Law and Public Policy, College of Public Health, College of Business, and Qatar Faculty of Islamic Studies. In 2014, the total number of students in Qatar private universities and colleges reached 6,844 of those 3,174 female and 3,670 male (Ministry of Development, Planning and Statistics, 2014).

4.5 The Kingdom of Saudi Arabia

The Kingdom of Saudi Arabia has made substantial investment in education. In 2012, Saudi was ranked the fifth countries of origin mobile students in the world. This can be partly attributed to the initiation of King Abdullah Scholarship in 2005 to sponsor highly-qualified Saudi students to undertake their post-secondary studies abroad and from 2006 to 2010, the total grants amounted to \$128,311,450.68 (Denman and Hilal: 2011). The number of Government Universities in Saudi Arabia has also increased from 14 to 25, with the inauguration of 11 new government-owned universities since 2001. The most notable public Universities are King Fahd University of Petroleum & Minerals, King Saud University, King Abdulaziz University, which ranked 1st, 3rd and 4th within the Arab region and 199, 237 and 303 respectively, according to QS world University Ranking of 2015-2016. To increase admission to higher education institutions, the Saudi Higher Education Council endorsed the establishment of community colleges as academic and vocational institutions linked to public universities to offer adaptable study programs in various specializations. In 2012, there were about 43 community colleges that offer 2-years associate degrees and students can enter the job market after the completion of their degrees or transfer to the linked public university to earn bachelor's degrees (Jamjoom: 2012). An example of these colleges is Dammam Community College, which is under the auspices of King Fahd University of Petroleum & Minerals.

The public higher education system in Saudi Arabia also includes 18 primary school teacher's colleges for men, 80 primary school teacher's colleges for women, 37 colleges and institutes for health, and 12 technical colleges (Onsman: 2010). Since the Government approved the establishment of the first private college in 1998, the number of private universities and colleges reached 29 in 2012 (Jamjoom: 2012). Foreign ownership is still restricted in private higher education in Saudi Arabia, and all public and private colleges and universities are under the supervision of the Saudi Ministry of Higher Education. Private higher education institution in Saudi Arabia are owned by companies and non-for profit organisations such as King Abdullah University for Science and Technology which is managed by ARAMCO, the national oil company. King Abdullah University is the Kingdom's first solely postgraduate higher education in Applied Mathematics, Biosciences, Chemical Engineering and Bioengineering, Computer Science, Geology and Geophysics, Electrical Engineering, Ecology and Eco-Engineering, Material Science and Engineering, and Mechanical Engineering. It is the most ambitious private higher education institution within the region, aiming

to become one of the top 20 scientific research universities in the world and it has been argued that its independence from the direct control of the Saudi government allows it enough flexibility to achieve its goals (Al Eisa and Smith: 2013). There is low level of institutional and professional autonomy in public universities, which is seen as a major challenge in achieving their goals (Smith and Abouammoh: 2013).

The expansion of the higher education sector reflects the Kingdom's inspiration to create a differentiated, hierarchical and cooperative world class higher education system that include public and private research universities, undergraduate colleges offering bachelor degrees as well as community colleges which are vocationally oriented institutions. However, as Mazi and Albatach (2013) pointed out the private sector may present a challenge for world-class system and many countries encounter difficulties in controlling the expansion of private for-profit institutions that have little commitment to quality. Therefore, the National Commission for Academic Assessment and Accreditation (NCAAA) was established in 2004 as an independent body to assess and accredit private and public higher education institutions. Onsmann (2010) discussed the importance of monitoring the impact of accreditation and compliance on the quality teaching and learning, and international concerns about the status of women and non-Saudi academics that can affect the Kingdom's international competitiveness in its higher education sector. By 2012, about 1 million students are enrolled at Saudi colleges and universities, compared to 7,000 in 1970 and over half of them are female. Furthermore, although the Kingdom of Saudi Arabia has the highest gross enrollment ratio in tertiary education in the Arab region, the gap between supply and demand, which is expected to reach 67% by 2030, represents another major challenge facing the Kingdom (Jamjoom: 2012).

4.6 The United Arab Emirates

In 1976 the UAE opened its first public federal university, the United Arab Emirates University, providing undergraduate and postgraduate degree programs. Since 1988, 16 Higher Colleges of Technology (HCT) have been established across the country, with separate colleges for males and females. They offer vocational and technical programs as well as undergraduate and postgraduate degrees. Female students have dominated enrollments in these institutions. Furthermore, due to the increasing number of female students desiring to pursue a postsecondary degree, the UAE opened in 1998 a women only higher education institution, Zayed University, offering several programs at the Bachelors and Masters level. There are also three Federal Military Colleges, graduating officers in the Army, Air Force and Navy. Altogether, these public institutions enrolled about 45,385 Emirati students by 2014, constituting 35% of the total number of students enrolled in tertiary education (Ministry of Higher Education & Scientific Research, 2014). Since early 1990s, there has been a remarkable increase in the number private higher education institutions, following the establishment of the first international branch campus by the University of Wollongong and currently, the UAE is the largest host of international branch campuses globally, with over 40 providers in 2009 (Becker, 2009). In 2014, private institutions enrolled 82,894 students, of whom 57% were non-Emirati nationals (Ministry of Higher Education & Scientific Research, 2014). Wilkins (2010) distinguished between two types of higher education institutions operating in the UAE namely: branch campuses owned from abroad and those owned by individuals from emirates or local organizations. The former category includes the American University of Sharjah, the University of Dubai, Al Ghurair University and Paris- Sorbonne University of Abu Dhabi. The latter includes Middlesex University, Heriot-Watt University and the University of Pune.

The UAE Commission for Academic Accreditation, whose standards are mainly based on the American model, accredits private higher education institutions and each of their academic programs, except those located in the free zone areas that spread across the UAE. To ensure the quality of higher education providers located in the free zone areas in Dubai (Dubai Knowledge Village and Dubai International Academic City), the University Quality Assurance International

Board (UQAIB) was established in 2009 to review these institutions. UQAIB is an independent group of international experts and the internal quality assurance body of the Knowledge and Human Development Authority (KHDA). All higher education institutions operating in these free zones must receive an academic authorization from KHDA. The latter has cooperated with the United Kingdom Quality Assurance Agency for higher Education to monitor the academic programs in Dubai free zones (Quality Assurance Agency for higher Education: 2014).

Wagie and Fox (2006) pointed to some challenges for UAE higher education sector, namely: teacher demographics, student preparation and motivation for higher education, matching graduate skills to the job market, lack of funding for public institutions and K-12 teacher pay, and the difficulty in coordinating a rapidly growing number of higher education institutions. Wilkins (2010) also identified several challenges facing private higher education institutions operating in the UAE. First, the current supply exceeds the demand and many of these institutions are operating under capacity. Private institutions that have a partnership with the government (e.g. Paris Sorbonne, INSEAD and the New York Institute), are facing less financial risk. Such partnership is said to provide them some financial and political advantage (Madichie and Kolo, 2013). Second, there is a need to satisfy their customers and protect the brands of these institutions by achieving quality in all areas of operations and investing in physical and human resources. Finally, regional instability constitutes a major challenge in attracting more students from overseas and in introducing a wider range of programs. Most of private institutions in the GCC in general offer limited curriculum and offer subjects that can accommodate large number of students and are relatively cheap to establish such as business, management and information technology.

5. Conclusion and Recommendations for future work

Higher education is experiencing a rapid expansion and transformation in the six members of the GCC. Despite the socioeconomic and demographic differences, they face similar challenges, as their economies remain highly dependent on hydrocarbon and compete with each other in different sectors. The heavy reliance on foreign labor and the need to improve productivity and strengthen education to develop their human capital remain the focus of their reforms agenda and there are no reported improvements in these regards. There is also a need to address the gap between the supply and demand in higher education and to attract mobile students in these states that aspire to be an education hub. Furthermore, several areas are not sufficiently addressed and require *further investigation*:

- *The low mean student performance in each Gulf country compared to the international mean in TIMSS and the low tertiary GER, particularly in the GCC countries that were the most successful in attracting international branch campuses.*
- *The impact of the rapid growth of privatization on government's commitment to public funding of higher education, access and equity in higher education, and unmarketable disciplines of studies that do not generate revenues.*
- *The extent to which GATS obligations can restrict the freedom of the GCC member states to develop national education policies.*
- *The low level of institutional and professional autonomy in public university and its impact on achieving their goals.*
- *The effectiveness of accreditation and other methods used to enhance the quality of teaching and learning and to control the expansion of for profit institutions that have limited commitment to quality.*

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An evaluation into the architectural factors attracting customers to Malaysian shopping malls

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shopping malls, customers, architectural factors, Malaysian shopping mall industry.

Abstract

This study is aimed at evaluating the architectural factors attracting customers to shop in the Malaysian shopping malls. Studies in the past, focused attention primarily on the provisions of various shopping items that attract customers to a mall without given due considerations to the architectural factors. The architectural factors were evaluated using five point Likert scales, which is used to obtain mean scores of the factors that attract customers. A questionnaire survey was administered to major customers patronizing Malaysian shopping malls. The customers were randomly selected. The architectural factors attracting customers to shop in the Malaysian shopping malls were ranked using Friedman's comparison test.

The results indicated significant differences in the customers ranking of the factors. This study is limited to the customers patronizing Malaysian shopping malls. The study provided the criteria for an evaluation of the architectural factors that attract customers to shop in the malls. The study also provides information to the developers of shopping malls in developing countries for an improved business growth. The study created bases for self-evaluation and competition among the developers of shopping malls for the enhancement of productivity and general contribution to the country's GDP. This study emanated from the governmental reports and past research in the area of retailing businesses in Malaysia. Finally, the study recommended developing shopping malls in certain locations, provision of facilities and services and constructions of malls with high quality materials and nice aesthetics beautification.

1.0 Introduction

The construction industry contributes immensely to the development of shopping mall businesses in most of the developing countries today; the contributions are through provisions of infrastructures required for the businesses. The based on the growing number of malls, customers tend to be more selective. The customers are more likely to patronize malls that are architecturally attractive and have quite attractive features in addition to the variety of stores and merchandise that match their preferences. Therefore, it is essential for malls developers to have adequate knowledge of the architectural features that attract customers to certain malls (Meyer-Ohle, 2014; Wong et al., 2001). The development of shopping malls have currently witness economic boom and improved the life styles and living standards of peoples in developing countries like Malaysia. The architectural features of modern shopping malls have impacted on the modern way of carrying out a business through the erection of architectural monument under the administration of central management. In recent decades, most of the Asian countries have witnessed the significant economic growth. The boom has come about as a result of increased developments of shopping malls that entirely change the economy of many Asian countries. In particular, the architectural features of shopping malls

have taken new dimensions towards attracting customers in many of the Asian countries. The architectural features such as mall location, facilities, aesthetics and quality of the structures have attracted customers for businesses in Malaysian shopping malls (Koçak 2010; Berman & Evans, 2001; Lui 1997; Yoon & Kijewski, 1997).

The development of shopping malls in Malaysia evolved from the social and recreational activities of doing businesses in addition to traditional shopping destination of Malaysia in 1980s and beyond (Lim et al., 2003). The shopping mall business is a major contributor to the Malaysian gross national income (GNI). The business contributed almost RM57 billion to the GNI in 2009. In order to achieve the 2020 GNI target, the malls businesses are seen as a key driver of domestic consumptions, which in turn will lead to economic growth (Koçak 2010). According to Retail Group Malaysia (RPM), retail business which comprises of shopping malls deal recorded about 8.1 percent development in 2011 with an amount of RM8.2 billion sales (Inside Malaysia, 2012).

According to the information from Malaysian Association of Shopping and High-rise Complex Management expressed that one in five Malaysian shopped in a mall once a week this is possibly the reasons for growing of shopping malls. The architectural features in shopping malls were the major features that attracted customers for shopping (Dennis et al., 2002; Berman & Evans, 2001). In accordance with the circumstances, malls location, malls facilities aesthetics and quality of structures in the malls are seen as the key features that attract customers for shopping in a mall (Yue-Teng et al., 2012; Wong et al., 2001). Therefore, there is the need to identify and assess the architectural features that attract customers for retailing business in Malaysian shopping malls. The objectives of the study are:

- i. Identify the major architectural factors that attract customers for shopping in the Malaysian Malls.
- ii. To rank the important architectural factors that attract customers to shop in the malls

2.0 Literature Review

The literature review discusses on the shopping malls attractive factors such as locations, aesthetics, facilities and services and quality of structures.

2.1 Shopping Malls

Shopping is concerned with making physical contact with malls or shopping centers in a way that customers have direct contact with some of the physical architectural features incorporated in the constructions of the malls (Anselmsson, 2006; Dholakia, 1999). According to Howard (2007), shopping is considered as recreation actions particularly in perspective of the increment of the shopping malls where the customers usually have direct contact with the physical architectural features in the malls for the purpose of shopping (South & Spitze, 1994; Fram & Axelrod, 1990).

A shopping mall is defined by ICSC (2004) as a building complex, constructed purposely with the aim of shopping business. It contains retail and other business. Sankar (2005) defined shopping mall as a shopping complex joined by walkways and other architectural features. The mall provides easy access to different and variety of shopping products through using of the architectural features and also it provides a kind of excitement to the targeted buyers.

Ahmed et al., (2007) reported that the recreation, amusement and social features of a shopping mall separated it from purchasing sections and products. In this manner, a customer might visit to have some rest. Moreover, the shopping mall is characterized as a building that contains both shopping items and recreational facilities. According to Assael (1987) shopping behaviour is seen as a certain inclination by a customer to purchases something.

2.2 Shopping malls attractiveness factors

Shopping centres vary in location, size, design, aesthetics, qualities, facilities, and management services. Customers might be attracted to one or more of the architectural features which attract tastes and choices to shop in a particular mall. In the event of growing shopping malls

and centers there is a need to consider the architectural factors that are attracting customers to shop in a mall when building a new shopping center. Numerous scholarly studies were conducted on different parts of the shopping centers yet just few evaluated the items of architectural factors towards attracting customers to shopping malls (Teller, 2008; Dennis et al., 2002a; Denis et al., 2002b; El-Adly, 2007; Ruiz, 1999; Wong and Yu, 2003).

Bodkin and Lord (1997) stated that the most important reasons for selecting malls are the locations of the malls, facilities available in the malls, qualities of structures built in the malls, the designs and aesthetics, conveniences, presence of a specific store in the malls, prices and services. According to Rajagopal (2006) locations and facilities on a shopping mall are the two most attractive factors that attract customers to a mall while El-Adly (2007) argued that the aesthetic factors of a mall attract more customers than any other factor. Tanan (1998) stated that quality of mall structures like convenience, car park is the most important customer's attractive factor and proposed five essential factors as attraction power of shopping mall which includes location, business concept, design, tenant mix, and management.

2.3 Location of shopping mall

The studies in the past consider locations of shopping malls as components of convenience. This attracts customers to patronize the shopping mall (Bloch et al., 1994; Ahmed et al., 2007; El-Adly, 2007). According to Koçak (2010), location is not only necessary for customers, also the managers that manned the day to day affairs of the malls. Usually, location of a business is one of the most difficult factors the developers face when it comes to the selection of various and alternative site locations, the decision-makers who have to assess the number of alternatives against well-defined criteria for the best location. The key achievement and success of a shopping mall is "location (Syahara & Ristiana, 1992).

Location has a very wide significance especially in the areas that includes residential, parks and offices. Location also has a very nearby relationship with the accessibility of shopping mall (Syahara & Ristiana, 1992). Besides that, Nicholls et al., (2002) pointed out that, location is likely the most important elements for a shopping mall.

A strategic location allows easy access, attracts a large number of customers, and boost possible sales of a retail opening. Thus accessibility attracts close neighbours of a shopping mall (Kocaili, 2010). Retail location has long been considered as an important strategic business decision for a number of reasons. First, customers' store choice decisions are influenced greatly by accessibility of retail locations according to spatial interaction models, which denote the relationship between a consumer's perception of utility and characteristics of a destination (Saxena, 2011). Secondly, retailers may be able to develop a sustainable competitive advantage through location strategy (Levy et al. 2007). The choice of a retail store location has a major and profound impact on its business performance. A wrong choice in most times could mean failure, whereas a good choice may lead to the business development toward unprecedented success

In today's highly competitive environment, choosing the correct site location for a retail outlet ranks amongst the top factors in determining that outlet's success or failure. Maximizing sales is a primary objective for retailers; hence, finding the perfect site location that will facilitate both pace and growth is of key importance (Saxena, 2011). Currently customers' shopping trend is heading toward merging different destinations and purposes in their shopping trips, which is known as cross-shopping (Khan, 2011). A location provides the business, with strategic advantages that competition may find difficult to overcome.

2.4 Facilities and services in the shopping mall

Generally, malls are considered based on the type of services installed or provided and the ways and means by which they deliver them. These might include transport facilities and services such as lifts, escalators conveyors etc. which are regarded as essential for any modern mall that appreciates the sensitivity of the shopping industry. Thus these services can be classified as personal

services (Lovelock et al., 1998). Past studies have also added that shopping centers provide services for the public in terms of access roads within the vicinity, sign boards and amenities such as restrooms (Berman & Evans, 2001).

Besides that, facilities and services also dealt with comfort factors that customers desired e.g. cleanness, width and security of the shopping mall. Provision of air conditioning services, comfortable seats together with rest rooms; central heating, spacious parking, and safety must be made available to enable customers to spend time during shopping or to socialize in the mall. In addition, developers have to ensure that customers are comfortable if they want to keep up with the attractiveness factors (El-Adly, 2007).

In the Korean market, there have been fierce competition to improve the services in shopping malls through creating a more relaxed atmosphere like departmental stores and other competitive ideas for a better services that includes: food court, free kids lounge, free shuttle bus services from various residential areas to the malls, ATM machines, and dry cleaners under one roof to attract more customers (Jin & Kim, 2003). The Korean malls houses a variety of "family" stores for clothes, shoes, accessories, sports wears, electronic appliances, and mobile services, in addition to kiosks selling candy (Jin & Kim, 2003).

Customers have different perceptions and expectations from the services in the shopping malls, which mainly focused on the salespeople being knowledgeable, courteous and helpful. Warm gestures like smiling, greeting, kind eye contact all play on the positive impression about the store or the mall in general (Winsted, 1997). Service quality is hard to determine as it has to do with what happens on the ground. Yet Wisniewski (2001) has identified service quality as "the difference between customer expectation of service and perceived service". Accordingly, if the expectation is higher than the performance, then quality can be perceived as less satisfactory causing dissatisfaction on the customer's part.

Among the many concerns for services in the shopping malls, security has a part to play (Sit et al., 2003; Haytko & Baker, 2004) A security can be an important factor in attracting customers to a certain mall, yet lack of security can lead to disruptions in the shopping process and even perpetrating crimes therefore provision of security gadgets is essential in malls, especially in the communities where violence rate is high.

2.5 Aesthetic and design of the mall

Craig and Turley (2004) agree that 'aesthetic' has to do with beauty, neatness and design among other things. In modern malls, further attention has been given to this that was neglected in the past. To motivate customers means to invest in the inside and outside environments of the mall including layout and architecture so that the customers may stay longer and repeat visit to the mall. According to the study conducted by Lui (1997) today's malls have witnessed a shift in terms of interior design; moving from a quiet classic design to a more sophisticated one with picturesque and eye-catching layout and decoration. Anselmsson (2006) added that decorations are important and spaces should be kept as bright and spacious as possible.

In a study by Loudon and Britta (1993) it was found that a better interior design helps to boost the mall image over time. Customers assess the mall by heavily drawing on some physical features as lacking or being available such as architectural designs and amazing shapes as well as design features like high ceilings, architecture, flooring/carpeting, interior landscaping, and store layout. Loudon and Britta (1993) said mall is a drama staged and maximized by the inclusion of more physical attractive features.

Today's shoppers evaluate shopping malls which have unique design or architecture, entertainment such as theatres and playgrounds, and sometimes attractive restaurants are the central focus in certain shopping areas ((Chun, Hassan, & Noordin, 2005; Yan & Eckman, 2009). Besides that, Wakefield and Baker (1998) found that the architectural design of a mall is the most decisive factor

which affected mall excitement, while a mall's interior design highly influenced the customers' desire to stay longer in the mall.

Other than that, Frassetto (2001) stated that atmosphere as a major factor in people's decisions to visit a shopping centre and a good atmosphere encourages people to stay longer and buy more. Very few numbers of studies in the past dealt with these particular aspects of the aesthetic elements that mainly focused on color and music types (Solomon, 1994; Peter & Olson, 1994). In general, atmospheric characteristics can be considered an extension to variety of products and can be well exploited to affect the buyers' mood and behavior positively and hence the mall image as a whole (Tiwari & Abraham, 2010).

2.6 Quality of structures in the mall

The qualities of engineering structures play an important role on the customer's choice of a shopping mall. The engineering structures such as basement car parks, storey car parks, the structural steel frames and roof trusses attract customers to shopping malls. The type of modern roofing elements design specifically to conserve heat/cold in the mall complex attracts customers to shop (Lambert, 1972). In a study by Charters and Pettigrew (2006) which pointed out that shoppers find it hard to determine what quality of structure is by giving an example on different structures type. More attention is focused when trying to evaluate quality of structures. For instance, perception based on quality differs on different type of structures. This was supported by Tsiotsou (2005) which added that "quality is a multidimensional concept that is always difficult to determine. The quality of a structure is relied on its specifications.

Previous studies linked quality directly to specifications (Carman, 1990; Parasuraman et al., 1996). While others find an indirect link through satisfaction (Cronin & Taylor, 1992; Sweeney et al., 1999) but still others arguably hold that both relationships exist (Tsiotsou, 2006). Although some would often confuse satisfaction and perceived quality to be interchangeable, especially among practitioners, Rust and Oliver (1994) proposed that the two are different in two ways: perceived quality is a more specific concept relying on product and service features, whilst satisfaction can stem from any dimension.

Customers highly depend on their perception of quality to distinguish various structures and products depending on two categories: intrinsic cues related to the physical composition of a structure or product, and extrinsic cues that make up the outside of the product related to it but not part of its physical components. Some attributes as size, length, wide, texture color, and shape of structure make the intrinsic cues of some elements. Without changing the nature of a structure itself, we cannot change its intrinsic attributes. Extrinsic cues to quality include, for example, the specifications curing time attractive colours (Yoon & Kijewski, 1997).

3.0 Research method

This study is quantitative in nature; a questionnaire survey was administered to 200 customers that visit shopping malls weekly in the five states of Malaysia that comprised of Selangor, Penang Island, Kedah and Sabah Johor Bahru that cover west and east Malaysia. The population of this study comprised of all Malaysian customers that visit shopping malls, have the willingness, ability and tendency to shop. The questionnaires were randomly distributed to the customers of the selected shopping malls in the five states. The customers were asked to answer the questionnaires at a counter after completion of a shopping. This study experienced difficulties in answering the questionnaire because of poor cooperation from the customers, which most of them were walk away customers and just take the questionnaire without answering it. As a result of that, only the responses of 100 respondents were received a total of 120 questionnaires were returned and 100 were analyzed respectively. This indicated 60% return and 50% response rates respectively. Twenty (20) questionnaires were rejected i.e. not included in the analysis because of discrepancies in the responses and/or majority of the items in the questionnaire were left unattended or unanswered. IBM SPSS version 21 was used in the data analysis.

3.2 Operationalization of the constructs

The four research constructs i.e. location of a mall, facilities and services installed in the mall, aesthetics and design of the mall and the qualities of structures constructed in the mall were all measured using a five-point Likert Scale. The Likert Scale is concerned with uni-dimensionality that makes sure all factors measure the same thing and is the most popular scaling procedure in use today (Guidici, 2003; Oppenheim, 2000). The construct were measured using a five-point Likert Scale, with the scale defining the perception of customers on the architectural factors that attract the customers. The scale ranges from strongly disagree to strongly agree. As shown below:-

- i. Strongly Disagree: refers to architectural factors that extremely do not attract customers to shop in a mall.
- ii. Disagree: refers to architectural factors that do not attract customer to shop in a mall.
- iii. Neutral: refers to architectural factors that neither attract nor distract the customers to shop in a mall.
- iv. Agree: indicates where the architectural factors attract the customers to shop in a mall.
- v. Strongly Agree: implies where the architectural factors that extremely attract customers to shop in a mall.

3.3 Content validity

Sekaran and Bougie (2011) stated that content validity is used in research to validate the research instruments used for a research study. Content validity is used to assess how well an idea or concept is represented by the items in a questionnaire. The content validity for this study was conducted by requesting experts in the field of development of shopping malls. This was achieved base on the experience of the experts in the area of developments of shopping malls in Malaysia. The experts comprised of three academics from universities on the rank of professors and two consultants architects in the industry on the suitability of the items in the questionnaire. After thorough discussions, the experts validated, verified and agreed on 8 items under location of a mall, 10 items under facilities and services installed in a mall, 8 items under the aesthetics and design of a mall and 5 items under qualities of structures constructed in a mall as shown in the table 1.0 below:

Table 1.0: Content Validity

S/N	Location of a Mall	Facilities and Services	Aesthetics and Design	Quality of Structures
1	Developing a shopping mall that is close to security building	Preferring a shopping mall with fully-equipped and clean rest rooms.	The shopping mall layout makes it easy to shop	Getting very good quality parking space is very important to customers
2	Preferring a shopping mall near other public places such as parks, cafes, restaurants	Preferring a shopping mall to be air-conditioned properly	The environment (i.e. lighting and decoration) in the malls attract customers	Having quality constructed basements attracts customers
3	Developing a shopping mall that is close to other shopping centres	Preferring a shopping mall with a variety of restaurants that have comfortable dining halls.	Environment and interior design encourage customers	Preferring a quality structural buildings (malls)
4	Attractive location of a shopping mall	Preferring a shopping mall with electric lifts,	Mall architecture design encourages customers	The quality of structural steel roofing trusses

5	Shopping mall which is located near public offices.	escalators, and banks with ATM services. Preferring all kinds of easy shopping like many counters and less crowded places.	Good mood in a nice mall.	attract customers General quality of the buildings (mall) attract customers
6	Preferring shopping mall located near security offices	Preferring shopping mall in which security is of high priority.	The merchandise displays in a shopping mall attracts customers	-
7	More than one means of transportation to reach the nearest shopping mall	Mall that has large parking space	The brightness of the colours in the mall motivate customers	-
8	Same shopping mall that is far away.	Kindness of the mall's staff	The background music motivates customers shopping activities.	-
9	-	Preferring a shopping mall with branches for famous companies such as telecommunications companies.	-	-
10	-	Preferring a shopping mall with a worshipping place.	-	-

3.4 Method of data analysis

The data obtained for this study was analyzed with statistical package for social science IBM SPSS version 21, SPSS is the general software used in social and applied sciences for data analysis (Sekaran and Bougies, 2011; Pallant, 2010; Marques, 2007) responses were encoded and programmed into a system using numbers to represent real data collected, this helped to analyze the data efficiently and effectively (Sekaran&Bougie, 2011) and were entered into the SPSS using data entry interface.

4.0 Data analysis and results

The analysis and discussion of the data obtained for this study is presented in this section.

4.1 Reliability test

Table 2.0 shows the reliability test for this study and is conducted using IBM SPSS software. The reliability test is achieved by determining Cronbach's Alpha for each construct. The alpha coefficient shows how reliable and consistent the survey instrument is in measuring the concept it was intended to measure. The values of the Cronbach's Alpha for the four architectural factors: The location of a shopping mall, facilities and services installed in a mall, mall aesthetics and design and the qualities of mall structures. The Cronbach's Alpha of mall location was 0.702; facilities and services installed was 0.861; the Cronbachs Alpha of aesthetics and design of a mall was 0.827 and that of qualities of structure was 0.766, with all values well above the benchmark Cronbach's Alpha value of 0.70, according to Sekaran&Bourgie (2011) and Pallant (2010). The Cronbach Alpha values

for the four constructs thus confirm that the survey instrument is reliable and consistent in the measurement of the intended purpose or items.

Table 2.0: Reliability Test by Cronbach's Alpha Coefficient of Architectural Factors

LOCATION OF A MALL	FACILITIES AND SERVICES	AESTHETICS AND DESIGN	QUALITY OF STRUCTURES
0.702	0.861	0.827	0.766

Table 3.0 presents the results of the Friedman's test for the location of a mall factors. The test indicated significant differences among the mean scores of the mall factors that attract customers to shop in a mall. The results showed that the calculated Chi-Square (χ^2) based on customers' mean scores ranking was $\chi^2=155.315$ with $p=0.000$ significant at $p=0.05$ level of significance.

Table 3.0: Friedman's Chi-square Test on the Location of a Mall Factors that Attract Customers to Shop in a Mall

S/N	N	Chi-Square	df	Assymp. Sig
1	100	155.315	7	0.000

a. Friedman Test

Table 4.0 presents the ranking of architectural factors that attract customers to shop in a mall. The table also compared the ranking scores of the factors. The customers ranked the factors developing a shopping mall that is close to residential houses as the sixth most important factor that attracts customers to shop in the mall. The factor preferring a shopping mall near other public places such as parks, cafes, restaurants was ranked second most important factor that attracts customers to shop in a mall. The next factor was a shopping mall that is close to other shopping centre was ranked first most important factor that attracts customers to shop in the mall. The factor shopping mall that has an attractive location was ranked third most important factor that attracts customers to shop in a mall. The next factor was shopping mall which is located near public offices which was ranked seventh most important factor that attracts customers to shop in a mall. The preferring shopping mall to be located near security offices was ranked fourth while needing more than one means of transportation to reach the nearest shopping mall was ranked eighth and always going to the same shopping mall even if it is far away was ranked fifth most important factors that attracts customers to shop in a mall respectively. This had indicated differences among the ranking of the factors that attract customers to shop in a mall with regards to the location of a mall.

Table 4.0: Customers Ranking of Location of a Mall Factors attracting the Customers to Shop in a Mall

S/N	Factors	Customers Ranking	
		Mean Score	Rank
1	Developing a shopping mall that is close to security building	3.91	6
2	Preferring a shopping mall near other public places such as parks, cafes, restaurants	5.75	2
3	Developing a shopping mall that is close to other shopping centres	5.94	1
4	Shopping mall that has an attractive location	4.73	3
5	Developing a shopping mall which is located near public offices	3.88	7
6	Preferring shopping mall to be located	4.55	4

7	near security offices Needing more than one means of transportation to reach the nearest shopping mall	2.98	8
8	Always going to the same shopping mall even if it is far away.	4.28	5

Table 5.0 presents the results of the Friedman's test of the facilities and services installed in a mall. The test indicated significant differences among the mean scores of the facilities and services factors that attract customers to shop in a mall. The results showed that the calculated Chi-Square (χ^2) based on customers' mean scores ranking was $\chi^2= 140.545$ with $p=0.000$ significant at $p=0.05$ level of significance.

Table 5.0: Friedman's Chi-square Test on the Facilities and Services Installed in a Mall that Attract Customers to Shop in a Mall

S/N	N	Chi-Square	df	Assymp. Sig
1	100	140.545	9	0.000

a. Friedman Test

Table 6.0 presents the ranking of architectural facilities and services installed in a mall that attract customers to shop in a mall. The table also compared the ranking scores of the factors. The customers ranked the factor preferring a shopping mall with fully-equipped and clean rest rooms as the seventh most important factor that attracts customers to shop in the mall. The factor preferring a shopping mall to be air-conditioned properly was ranked eighth most important factor that attracts customers to shop in a mall. The next factor preferred a shopping mall with a variety of restaurants that have comfortable dining halls was ranked sixth most important factor that attracts customers to shop in the mall. The factor preferring a shopping mall with electric lifts, escalators, and banks with ATM services was ranked second most important factor that attracts customers to shop in a mall. The next factor preferred all kinds of easy shopping like many counters and less crowded places was ranked fifth most important factor that attracts customers to shop in a mall. The factor preferring a shopping mall in which security is of high priority was ranked as the fourth most important factor that attracts customers to shop in a mall. The factor visiting the mall because parking is easily available was ranked ninth most important factor by the customers. When the employees are kind and helpful was ranked first most important factor that attracts customers to shop. Preferring a shopping mall with branches for famous companies such as telecommunications companies was ranked as the tenth while preferring a shopping mall with a worshipping place was ranked third most important factor that attracts customers to shop. This had indicated differences among the ranking of factors that attract customers to shop in a mall with regards to the facilities and services installed in a mall.

Table 6.0: Customers Ranking of Facilities and Services attracting the Customers to Shop in a Mall

S/N	Factors	Customers Ranking	
		Mean Score	Rank
1	Preferring a shopping mall with fully-equipped and clean rest rooms	4.99	7
2	Preferring a shopping mall to be air-conditioned properly	4.58	8
3	Preferring a shopping mall with a variety of restaurants that have comfortable dining halls	5.65	6

4	Preferring a shopping mall with electric lifts, escalators, and banks with ATM services	6.50	2
5	Preferring all kinds of easy shopping like many counters and less crowded places	5.87	5
6	Preferring a shopping mall in which security is of high priority	6.03	4
7	Parking space is easily available	4.25	9
8	When the employees are kind and helpful, I visit the shopping mall again.	6.62	1
9	Preferring a shopping mall with branches for famous companies such as telecommunications companies.	4.14	10
10	Preferring a shopping mall with a worshipping place.	6.41	3

Table 7.0 presents the results of the Friedman's test on the aesthetics and design factors that attract customers to shop in a mall. The test indicated significant differences among the mean scores of the aesthetics and design factors. The results showed that the calculated Chi-Square (χ^2) based on customers' mean scores ranking was $\chi^2 = 63.448$ with $p = 0.000$ significant at $p = 0.05$ level of significance.

Table 7.0: Friedman's Chi-square Test on the Aesthetics and Design of a Mall that Attract Customers to Shop

S/N	N	Chi-Square	df	Assymp. Sig
1	100	63.448	7	0.000

a. Friedman Test

Table 8.0 presents the ranking of aesthetics and design factors that attract customers to shop in a mall. The table also compared the ranking scores of the factors. The customers ranked the factor. The shopping mall layout makes it easy to shop as the first most important factor that attracts customers to shop in the mall. The factor the environment (i.e. lighting and decoration) in the malls attracts the attention of customers was ranked seventh most important factor that attracts customers to shop in a mall. The next factor was the environment and interior design that encourage customers to stay longer in the mall which was ranked second most important factor that attracts customers to shop in a mall. The factor Mall architecture design encourages customers to shop frequently was ranked fourth most important factor that attracts customers to shop in a mall. The next factor was the good mood of mall staff was ranked third most important factor that attracts customers to shop in a mall. The factor the merchandise displays in a shopping mall attracts customers was ranked as the eighth most important factor that attracts customers to shop in a mall. The factor the brightness of the colours in the mall motivates customers was ranked fifth most important factor by the customers. The background music motivates customers' shopping activities was ranked sixth most important factor that attracts customers to shop. This had indicated differences among the ranking of factors that attract customers to shop in a mall with regards to the facilities and services installed in a mall.

Table 8.0: Customers Ranking of Aesthetics and Design of a Mall attracting the Customers to Shop

S/N	Factors	Customers Ranking	
		Mean Score	Rank
1	The shopping mall layout makes it easy to shop	5.22	1

2	The environment (i.e. lighting and decoration) in the malls attracts attention	4.01	7
3	Environment and interior design encourage customers to stay longer in the mall.	5.03	2
4	Mall architecture design encourages customers to visit it frequently	4.86	4
5	The good mood in a nice mall	4.92	3
6	The merchandise displays in a shopping mall attracts customer	3.57	8
7	The brightness of the colours in the mall motivates customers to visit.	4.23	5
8	The background music motivates customers shopping activities	4.18	6

Table 9.0 presents the results of the Friedman's test on the qualities of structures factors that attract customers to shop in a mall. The test indicated significant differences among the mean scores of the qualities of structures factors. The results showed that the calculated Chi-Square (χ^2) based on customers' mean scores ranking was $\chi^2 = 40.463$ with $p = 0.000$ significant at $p = 0.05$ level of significance.

Table 9.0: Friedman's Chi-square Test on the Quality of Structures that Attract Customers to Shop

S/N	N	Chi-Square	df	Assymp. Sig
1	100	40.463	4	0.000

a. Friedman Test

Table 10.0 presents the ranking of the qualities of structures factors that attract customers to shop in a mall. The table also compared the ranking scores of the factors. The customers ranked the factor good quality parking space as the second most important factor that attracts customers to shop in the mall. The factor having quality constructed basements attracts customers was ranked first most important factor that attracts customers to shop in a mall. The next factor preferred visiting quality structural buildings (malls) was ranked fifth most important factor that attracts customers to shop in the mall. The factor The quality of structural steel roofing trusses attract customers to visit a mall was ranked fourth most important factor that attracts customers to shop in a mall. The next factor was general quality of built mall attract customers to visit was ranked third most important factor that attracts customers to shop in a mall. This had indicated differences among the ranking of factors that attract customers to shop in a mall with regards to the facilities and services installed in a mall.

Table 10.0: Customers Ranking of the Quality of Structures Attracting the Customers to Shop

S/N	Factors	Customers Ranking	
		Mean Score	Rank
1	Getting very good quality parking space is very important to customers	3.27	2
2	Having quality constructed basements attracts customers	3.55	1
3	Preferring visiting quality structural buildings (malls)	2.62	5
4	The quality of structural steel roofing trusses attract me to visit a mall	2.73	4
5	General quality of built mall attract me	2.84	3

to visit

5.0 Discussions of the findings

IBM SPSS software was used to achieve the aim of this study. Friedman's test was used to rank the architectural factors that attract customers to shop in a mall namely: location of a mall, facilities and services installed in the mall, aesthetics and design of a mall and quality of structures in a mall. The architectural factors are metrics that determined the rank level of attractiveness of customers to shop in a mall. The location of a mall had eight (8) items in the questionnaire. The items were multi-dimensional, the customers ranked the factor on the location of shopping mall that is close to other shopping centres as the first most important factor that attract customers to shop. This is possibly the reasons of the customers required alternatives and competitions where there is a concentration of shopping malls. The customers ranked and preferred a shopping mall close to public places such as parks, cafes; restaurants as the second most important factor that attracts customers to shop. This possibly indicated that the bulk of customers that patronized shopping malls were mostly travelers that can easily walk-in and shopped. The customers ranked shopping mall that has an attractive locations such as close to major roads, town centres, and tourist sites as the third most important factor that attracts customers to shop.

The customers ranked and preferred a shopping mall close to residential buildings as the fourth most important factor that attracts customers to shop. Similarly, the customers ranked and preferred a shopping mall that is far away from residential buildings as the fifth most important factor that attracts customers to shop. This is possibly due to the facts that some customers regarded shopping as a tourist activity the customers preferred to shop on far places. The customers ranked a shopping mall that is close to security buildings as the sixth most important factor that attracts customers to shop. This is possibly due to the rate of crimes that occurred in cities and some shopping malls. Location of shopping mall close to security building would give confidences to the customers on both their lives and properties. The customers ranked the location of a shopping mall close to public offices as the seventh most important factor that attracts customers to shop. This possibly due to some customers preferred to shop immediately after office hours. The customers ranked the problems of more than one means of transportation to reach the nearest shopping mall as the eighth and least most important factor that attracts customers to shop. This is possibly due to the customers preferred shopping malls close to either residential or workplaces.

The facilities and services provided in a shopping mall had ten (10) items in the questionnaire. The customers ranked kindness of the mall employees as the first most important factor that attracts customers to shop in a mall. This is due to the reasons that customers like welcoming face. The customers ranked and preferred a shopping mall with electric lifts, escalators, and banks with ATM services as the second most important factor that attracts customers to shop. This is because lifts, escalators etc. eased the difficulties of transport in large malls. The customers ranked and preferred a shopping mall with a worshipping place as the third most important factor that attracts customers to shop. This is possibly due to some customers spent more time shopping. The customers ranked and preferred a shopping mall in which security is of high priority as the fourth most important factor that attracts customers to shop. This is because the customers considered the security of themselves and belongings. The customers ranked and preferred all kinds of easy shopping like many counters and less crowded places as the fifth most important factor that attracts customers to shop. The customers ranked and preferred a shopping mall with a variety of restaurants that have comfortable dining halls as the sixth most important factor that attracts customers to shop. This is possibly due to the facts that some customers enjoyed eating outdoors. The customers ranked and preferred a shopping mall with fully-equipped and clean rest rooms as the seventh most important factor that attracts customers to shop. The customers ranked and preferred a shopping mall to be air- conditioned properly as the eighth most important factor that attracts

customers to shop. This is possibly due to the weather conditions. The customers ranked shopping malls with available parking spaces as the ninth most important factor that attracts customers to shop. Lastly the customers ranked and preferred a shopping mall with branches for famous companies such as telecommunications companies as the tenth and least most important factor that attracts customers to shop.

The aesthetics and design of a shopping mall had eight (8) items in the questionnaire. The customers ranked type of shopping mall layout as the first most important factor that attracts customers to shop. This is because it makes shopping easy. The customers also ranked the nature of a mall environment and interior design as the second most important factor that attracts customers to shop. This is because it encourages the customers to stay longer in the mall. The customers ranked good mood of customers in a fine mall as the third most important factor that attracts customers to shop. The customers' also ranked Malls architectural designs as the fourth most important factor that attracts customers to shop. This encourages the customers to visit the mall frequently. The customers ranked the nature of the colours in a mall as the fifth most important factor that attracts customers to shop. This is because it motivates the customers to visit. The customers ranked the background and the type of music played in a mall as the sixth most important factor that attracts customers to shop. This motivates the customers shopping activities. The customers ranked the nature of environment (i.e. lighting and decoration) in the malls as the seventh most important factor that attracts customers to shop. This attracts the attention of the customers to visit a mall. The customers ranked the merchandise displays in a shopping mall as the eighth most important factor that attracts customers to shop.

The quality of structures constructed in a mall had five (5) items in the questionnaire. The customers ranked well-structured and constructed basements as the first most important factor that attracts customers to shop. This is because of most of the customers were attracted by different type of constructions. The customers ranked very good quality parking space as the second most important factor that attracts customers to shop. This is for easy and secured parking of customers' vehicles. The customers also ranked the quality of built mall as the third most important factor that attracts customers to shop. The customers also ranked the qualities of structural steel roofing trusses as the fourth most important factor that attracts customers to shop. Lastly the customers ranked and preferred the qualities of structural buildings of the malls as the least and fifth most important factor that attracts customers to shop.

6.0 Conclusions and recommendations

The study considered four architectural factors that attracts customers to shop in a mall namely: location of a mall, facilities and services provided, aesthetics and design of the mall and qualities of structures constructed in the mall with the view of identifying and ranking of factors that attracts customers most to shop in a mall through assessing areas of attractiveness in the construction of a mall and enhancing upon them. The study also serves as a wake-up call that provided awareness to the developers of shopping malls in Malaysia through identifying and ranking the most important factors that attract customers to their malls. This would enhance business activities and improved on the overall GDP of Malaysia.

The architectural factors that attracts customers to shop in a mall were location of a mall that had eight (8) items, facilities and services that had ten (10) items, aesthetics and design that had eight (8) items and quality of structures that had (5) items. The architectural factors were identified from literatures and discussions with the stakeholders concerned in the development of shopping malls in Malaysia. These factors were ranked and evaluated the most important factors that mostly attract customers to shop in a mall under the location of the malls were development of a mall close to other shopping centres as the most important factor that attract customers to shop. This is possibly the reasons that customers required alternatives and competitions where there is a concentration of shopping malls. Then also development of a shopping mall close to public places such as parks,

cafes; restaurants and development of a shopping mall that has an attractive locations such as close to major roads, town centres, and tourist sites. Similarly, under the facilities and services in the malls provision of a mall that employed trained staff, provision of a mall that is equipped with electric lifts, escalators, and banks with ATM services and provision of a mall that has a worshipping place. Under the aesthetics and design of a mall the customers ranked the most important architectural factors that attract customers to shop in a mall includes development of a shopping mall with good layout, the nature of a mall environment and interior design and good mood of customers as the most important factors that attract customers to shop. The architectural factors under the qualities of structures were structured and constructed basements, adequate parking spaces and the quality materials used in building of a mall. These are the most important factors that attract customers to shop. The study therefore, recommends the developments of shopping malls close to residential houses were customers could easily walk a short distances for shopping. The facilities and services installed in shopping malls attract customers; the developers of shopping mall should consider the design and installation of modern facilities like conveyors, elevators, lifts etc. while designing and constructions of shopping malls. The developers of shopping mall should consider location of their mall and quality of materials during constructions.

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Employer branding: What constitutes “An Employer of choice?”

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Keywords

Employer Branding, Employer of Choice, Employer Image, Desired Employer

Abstract

This study looked at the factors that would attract employees towards an ‘Employer of Choice’. The study explored an analysis into the previous addressed literature along with exploratory sets of interviews held with fresh graduates and five focus groups working in various organizations. This resulted into a set of proposed factors which were compiled in the form of a questionnaire and distributed among 2000 individuals across various domains. Statistical results revealed a number of factors with relatively high importance that were grouped based on their relatedness into a proposed framework to define the factors that constitute ‘an employer of choice’. Future research should extend to other sectors to enhance the process of the generalization of the results.

1. Introduction

The new struggle and war among organizations is to adopt fully the talent management process in the strict sense. Organizations are living in the era of “Talent –War”. The creation of a product brand relies on a brand-driven organization that can attract employees (Keller, Lane, Aperia, Georgson Mats, 2008). Historically, employer branding focused on developing a distinctive external image and goodwill (Backhaus and Tikoo 2004; Love and Singh, 2011; Mosley, 2007). The new perspective of employer branding is an approach of aligning both the internal practices and the external image in an attempt to achieve positive employees’ engagement and satisfaction (Mosley, 2007). The nature of work is changing and is confronting several challenges with regard to recruitment and retention of employees. The changing employment trends aren’t only limited to globalization, but also to other aspects like, changing pace of work - life balance, social life demands, changing demographics and many other variables. Employer branding practices assume that human capital can create an added value through the adoption of optimum investment that in return improves performance (Backhaus et. al., 2004). The growing need to recruit qualified employees with a diversity of soft and technical qualifications is an ongoing urge to all organizations. Employer branding is likely to create a “magic-spell” that allows organizations to differentiate themselves from others in the market place. It is significantly strategic to utilize the employer brand to attract, and retain talents to create core competence within the human resources. This in return could create the organization’s unique distinctive advantage.

2. Literature Review

a) Defining Employer Branding

Employer branding is one of the growing areas of interest to organizations. Becoming a “desired employer” in the eyes of applicants is not an easy motto to attain. The origins of employer branding goes back to Ambler and Barrow. They were the first to address branding from corporate perspective building on the idea of branding for a given product/service. Employer branding is “the package of functional, economic, and psychological benefits provided by employment and identified with the employing company (Ambler and Barrow, 1996, p.187). Sullivan (2004) defines employer branding as a multi-dimensional construct encompassing current and potential employees as well as stakeholders. On the other hand, (Shaker and Ahmed, 2014) defines employer branding as the process of portraying an image of the firm to its’ prospective employees in the labour market as a

great working place. Employer branding is the representation of an organization to the external potential employees as well as how the organization will appear to the current existing employees. Crain (2009) viewed employer branding as an emotional attachment and identification between organizations and employees. In this respect, organizational identity was assumed as a construct that helps in creating the notion of employer branding. The motto "Employer of choice" refers to the choice of a preferred employer among various employers in the market that in return will increase employee's loyalty towards the choice of a desired employer (Petkovic M., 2008). Employer branding differentiates a given employer from other rivals in the market and is a key indicator of the relationship status between the employee and the organization (Backhaus et.al., 2004; Fernandez-Lores, 2012; Kimpakorn and Tocquer, 2009; Love et. al., 2011). Some scholars looked at employer branding as the main organizational driver for the creation of competitive advantage (Edwards, 2010; Kimpakon et. al., 2009; Maxwell and Knox, 2009). The author defines employer branding as a complex process of emotionalizing an employer in the cognition of an individual through a bundle of offerings and impressions about an employer of choice.

b) Classification of Employer Branding

There have been several attempts to classify employer branding. Dutton, Dukerich and Hurquail (1994) classified employer branding as internal employer branding and external employer branding. Internal employer branding is how employees evaluate an employer based on their employment experience. Moroko and Uncles (2008) addressed that internal employer branding is tied to employees' beliefs and directly influences other external employees' who are interested in the organization. Aggreholm, Andersen and Thomsen (2011), highlighted that internal branding practices targeting existing employees would deliver a brand promise to external potential employees acting as a tool to recruit the right candidates. Chhabra and Sharma (2014) argued that internal branding practices that increase employer loyalty and at the same time enhance employer attractiveness for potential employees. On the other hand, De Chernatony (2001) focused on internal branding as an emotional symbol of creating the bond between employees and their organizations. Sullivan (2004) addressed employer internal branding efforts as the tool that creates the perception of external employer branding.

Another perspective of classifying employer branding addressed symbolic and instrumental employer branding. Lievens and Highhouse (2003) and Lievens, Hoye and Anseel (2007), looked at the symbolic employer branding as the subjective, symbolism and abstraction of intangible attributes. They linked the symbolic aspects to the creation of a sound organizational reputation and image that are tied to emotions and perceptions towards a given brand. Symbolic aspects would include; prestige, innovativeness, organizational culture and management style. The distinguishing attribute of symbolic benefits is tying employees' wants to the fulfillment of self-identity (Backhaus et. al., 2004; Lievens et. al., 2003). Contrary to that, (Lievens et. al., 2007) defined the instrumental aspects of employment branding as the tangible and objective attributes that are tied to employer offerings, for example; payment and bonus schemes.

c) Benefits of Employer Branding

Several studies looked at the benefits and the advantages of employer branding that could be achieved by organizations as they become "an employer of choice". Through the review of literature the following perceived benefits were concluded as; creating and maintaining favourable customer image along with decreased employees' turnover (Lenaghan and Eisner, 2005; Minchington and Thorne, 2007), strengthening the organizational financial performance (Becker and Huselid, 2001); increased shareholders' returns (Shellenbarger, 1998), creation of positive identity and positive reputation (Luthans and Peterson, 2002), increased customer satisfaction, higher return on investment and profitability, reduced costs of employees' acquisition (Barrow and Mosley, 2007; Ritson, 2002), enhanced recruitment, retention and employee engagement (Backhaus et.al., 2004; Barrow et. al., 2005; Edwards, 2010; Love et.al.,2011; Michington et. al., , 2007; Van Mossevelde, 2010),

competitive advantage and assimilation of organizational values (Backhaus et. al., 2004; Love et. al., 2011), improved employees' relations (Berthon, Ewing, Hah, 2005), increase in the quantity and the quality of job applicants (Lievens et al., 2007), positions the organization as a great place to work for in the minds of potential employees (Branham, 2001), sending the right message about the organization thus, attract the appropriate candidate during the recruitment process (Smedley, 2007), improved organizational supportive culture (Backhaus et. al., 2004), employer commitment to employees, a pleasant feeling towards working for a good reliable organization (Woodruffe, 2006) and shorter flexible recruitment process along with reduced recruitment costs (Heilmann, Saarenketo and Liikkanen, 2013) .

d) Factors that attract employees to an "employer of choice"

There have been several attempts to explore the reasons behind attracting applicants to a given organization as well as the reasons that keep employees willing to stay within a chosen organization. The researcher identified the following factors from the review of literature as the key factors in attracting employees to an "employer of choice"; employer attractiveness as the degree to which an individual would feel a level of identification within a given organization (Ambler et al., 1996; Moroko and Uncles, 2009), prestigious employer (Ambler et. al., 1996), an employer that can reflect self-image "who I am?" (Aaker, 1997), a good working place (levering, 1996; Woodruffe, 2006), organizational corporate social responsibility practices (Turban and Cable, 2003), organizational image (Belt and Paolilo, 1982; Gatewood, Gown and Lautenschlager, 1993; ; Knox and Freeman, 2006; Martin and Hetrick, 2006; Tom, 1971; Turban and Greening, 1997), dynamic business process, organization cares about the well-being of employees, task variety, clear opportunities for long-term career progression (Terjesen, Vinnicombe and Freeman, 2007), personality fits within a given organization brand (Byrne and Neuman, 1992; Cable and Judge, 1996), positive reputation and profitability (Cable and Turban, 2003; Pretson and O'Bannon, 1997), the type of industry or sector of operation (Burman, Schaefer and Maloney, 2008), work - life balance and compensation benefits (EBI'S branding global research), industrial health and safety programs (Watson, 2010), organizational rewards packages (Bretz, Ash and Dreher, 1989), training and development opportunities as well as global assignment opportunities (Jain, Bhalt, 2015), fulfilling promises and obligations towards employees (Barrow and Mosley, 2007), organizational ability to differentiate itself from competitors (Backhaus et. al., 2004; Erlenkaemper, Hinzdorf, Priemuth and Thaden, 2003), attractiveness and comprehensiveness of the company's website (Sarabdeen, El-Rakhawy and Khan, 2011), the interaction between existing employees and the general public in the form of the word of mouth especially if the existing employees interact regularly with a social group of friends and relatives (Dowling, 2001).

A second view addressed by (Kucherov and Zavyalova, 2012) looked at employer brand attributes from four perspectives; economic factors (such as: high salary, fair rewards and bonus system, and appropriate work schedule), psychological factors (such as: strong supportive corporate culture, favourable relationship among employees, teamwork, objective evaluation of the work itself), functional factors (such as: training, career growth, career development and utilization of employees' knowledge and skills), and organizational factors (such as: market leadership, scope of international operations, products brand reputation, management style and reputation of top-management).

A third view addressed by, Mckinsey &Company (2001) who identified four grouping of benefits that help in attracting and retaining the right calibers. In this respect, current and potential employees are attracted based on the benefits that they receive from the employer. There four grouping of benefits are; emotional benefits (describe soft employment offering like: culture, empowerment and teamwork), rational benefits (address employment elements as: working conditions, career path, career development potentials and training offerings), tangible associations (products, services and organizational success) and intangible associations (organizational roots,

organizational vision, mission and values). In their exploratory research (Chhabra and Sharma, 2014) identified compensation, career prospects, job profile, brand name, employee empowerment, corporate culture, supportive workmates, job security, recognition, and training as the core dimensions of employer branding. A fifth view looked at five different employer branding. The first value is economic value is likely to target current employees than potential applicants and includes; good salary, fair holidays, appropriate retirement packages (Berthon et.al., 2005). The second value is the development value such as good training opportunities, empowering and motivating environment, and a good supportive culture (Judge, Bono, Locke , 2000) as well as opportunities for promotion and development (Schnake, Williams and Fredenberger, 2007). Third is the social value that encompasses team spirit, friendly relationships, and respectable environment (Saari and Judge, 2004). The fourth value is the diversity value which refers to the interesting aspects of the job (Berthon et. al., 2005) which includes; challenging job tasks (Backhaus et. al., 2004; Towers Perrin, 2005) and task variety (Backhaus et. al., 2004). The fifth value is the reputation value (Berthon et. al., 2005) and includes company's reputation, and brand name products (Cable and Turban, 2001).

3. Research Problem

The notion "unique employment experience" is a multidimensional, stimulating construct to explore. Employer branding has received much attention from practitioners, but little in academic context particularly with empirical foundation in the Eastern domains. One of today's challenges is to group and identify the factors that would attract the right potential employees and would retain current employees to an employer. An insight into the current literature revealed up to the knowledge of the researcher a debate around a grouping of factors that would lead to the choice of "employer branding preference". The research problem could be addressed as: *What are the key factors that constitute "an employer of choice"?*

4. Research Objectives

1. Identify the key factors that constitute employer of choice through the review of literature and interviews with focus groups.
2. Examine and test statistically the relative importance of these factors.
3. Propose a conceptual framework that addresses the factors which constitutes an 'Employer of Choice' based on the statistical analysis and results.

5. Research Methodology

a) Research Design

The research adopted the usage of survey questionnaires to measure the relative importance of the factors that would attract employees to an employer of choice. The factors addressed in the questionnaire were derived from the literature review, as well as from the interviews held with a number of 50 fresh graduates and five focus groups encompassing employees working in reputable multinational, international and local operations organizations. The fresh graduates were from public and private universities in Cairo and Giza governorates and were asked to join the discussion collectively in one of the big sports clubs in Cairo. As for the five focus groups, participating organizations were asked to ensure that the selected candidates of the focus groups hold diversity in age, gender, income, job category and tenure. The five focus groups comprised a total of 35 employees with various demographic characteristics. Each of the groups were met for a period of time in a room equipped with sound recorders, whereby the research objectives were fully explored, questions were raised and time was allowed for free discussion. Participants were given gift certificates as a gratitude for their contribution in the discussions. The interview responses were analyzed and identified some additional factors that were not addressed in the literature namely; amount of work loads, sense of workplace empathy and compassion, democratic working environment whereby employees' opinions are counted, and clear role-definition among employees. A stratified random sample of 25 organizations as well as fresh graduates who were targeted with a

total of 2000 questionnaires distributed among employees working inside various multinational, international and local organizations in various business sectors as well as to fresh graduates in Cairo and Giza governorates. The questionnaires items were to be rated on a five-point Likert scale ranging from unimportant to extremely important. The questionnaire also included fields for the demographic data. A total of 1627 questionnaires were returned complete and valid, with a response rate of 81.35 %.

b) Initial Questionnaire

The initial questionnaire items were derived from the review of the previous research studies and the results of the interviews. The researcher grouped the benefits into a set of 43 items along with fields for demographic data concerned with; gender, age, marital status, employment status, and education level. In order to avoid any level of biasness, ex-ante procedural remedies as addressed by (Podsakoff, Mackenzie, and Podsakoff, 2012) were adopted; whereby the purpose of the research was announced in writing to the participants, and that data collected will be treated in a confidential manner, respondents were informed that there is no right or wrong answer and that it's all about their perception. On the other hand, ex-post procedural remedies were also adopted in the form of factor analysis. The initial questionnaire is shown in Table (1).

- 1 Prestigious Employer
- 2 Attractive Employer
- 3 Employer reflects my self-image
- 4 Employer practices lots of corporate social responsibility
- 5 Employer's image to the general public
- 6 Employer enjoys a positive reputation
- 7 Employer's type of industry
- 8 Employer's ability to differentiate itself from competitors
- 9 Employer's website is attractive and comprehensive
- 10 Employer is a market leader
- 11 Employer's scope of international operations
- 12 Employer's range of products and services offerings
- 13 Employer's vision, mission and core values
- 14 Employer's country of origin
- 15 Employer cares about my well-being
- 16 Employer adopts teamwork and team spirit practices
- 17 Favourable relationships among existing employees
- 18 Existing employees convey positive image about the employer to the general public
- 19 Employers' Management style and their interaction with employees
- 20 Employer's branded products match my personality
- 21 Employer's ability to fulfil obligations towards employees
- 22 Employer offers appropriate salary scheme
- 23 Employer offers fair rewards and bonus systems
- 24 Employer offers appropriate compensation benefits
- 25 Employer adopts a sense of workplace empathy and compassion
- 26 The working environment is democratic and employees' opinions are counted
- 27 Employer has a pleasant working place
- 28 Employer adopts a supportive corporate culture
- 29 Employer offers fair holidays
- 30 Employer offers appropriate retirement packages
- 31 Employer adopts dynamic business process
- 32 Employer allows for work-life balance
- 33 Employer offers industrial health and safety programs
- 34 Employer offers long-term career progress opportunities
- 35 Employer offers jobs with task variety and opportunities to learn
- 36 Employer offers challenging opportunities to grow and learn
- 37 Employer offers training and development opportunities
- 38 Employer offers opportunities for promotion and recognition
- 39 Employer offers clear defined roles for growth and development
- 40 Employer offers global assignment opportunities
- 41 Employer utilizes employees' knowledge and skills
- 42 Employer offers objective evaluation for the work with feedback for development
- 43 Employer offers job security that allows for future growth

Table (1): Factors that constitutes an employer of choice: initial questionnaire items

6. Statistical Analysis and Results

a) **Pilot Study:** a pilot study was administered on a random sample of 50 participants in order to test the validity and the reliability of the variables. Factor analysis, internal consistency, and reliability would provide evidence for the construct validity (Cronbach et al., 1955). Results of the pilot test are shown in Table (2)

Prestigious Employer	0.779**	0.946
Attractive Employer	0.844**	
Employer reflects my self-image	0.831**	
Employer practices lots of corporate social responsibility	0.827**	
Employer's image to the general public	0.841**	
Employer enjoys a positive reputation	0.894**	
Employer's type of industry	0.755**	
Employer's ability to differentiate itself from competitors	0.833**	
Employer's website is attractive and comprehensive	0.705**	
Employer is a market leader	0.712**	
Employer's scope of international operations	0.687**	
Employer's range of products and services offerings	0.571**	
Employer's vision, mission and core values	0.761**	
Employer's country of origin	0.726**	
Employer cares about my well-being	0.66**	0.648
Employer adopts Teamwork and team spirit practices	0.516**	
Favorable relationships among existing employees	0.422**	
Existing employees convey positive image about the employer to the general public	0.719**	
Employers' Management style and their interaction with employees	0.637**	
Employer's branded products match my personality	0.526**	
Employer's ability to fulfill obligations towards employees	0.456**	
Employer offers appropriate salary scheme	0.829**	0.937
Employer offers fair rewards and bonus systems	0.765**	
Employer offers appropriate compensation benefits	0.848**	
Employer adopts a sense of workplace empathy and compassion	0.835**	
The working environment is democratic and employees' opinions are counted	0.890**	
Employer has a pleasant working place	0.855**	
Employer adopts a supportive corporate culture	0.732**	
Employer offers fair holidays	0.814**	
Employer offers appropriate retirement packages	0.615**	
Employer adopts dynamic business process	0.908**	
Employer allows for work-life balance	0.380**	
Employer offers industrial health and safety programs	0.774**	
Employer offers long-term career progress opportunities	0.749**	0.854
Employer offers jobs with task variety and opportunities to learn	0.597**	
Employer offers challenging opportunities to grow and learn	0.465**	
Employer offers training and development opportunities	0.742**	
Employer offers opportunities for promotion and recognition	0.745**	
Employer offers clear defined roles for growth and development	0.702**	
Employer offers global assignment opportunities	0.630**	
Employer utilizes employees' knowledge and skills	0.643**	
Employer offers objective evaluation for the work with feedback for development	0.634**	
Employer offers job security that allows for future growth	0.658**	

Table (2): Validity and Reliability of the study variables

The statistical results as shown in Table (2) show that all the items are valid and reliable for the study purpose as Cronbach Alpha ranged from (0.648-0.946), accordingly the items can be used for the purpose of the study

b) **Descriptive Statistics:** The questionnaires distributed included items related to the demographic characteristics. A summary of the demographic characteristics is presented in the following table

Demographic Variables	Fresh Graduates (Unemployed)		Employed	
	Frequency	%	Frequency	%
Gender				
Male	308	39.9	296	33.5
Female	436	60.1	587	66.5
Age				
21-30	139	18	83	9.4
31-40	345	44.7	401	45.4
41-50	229	29.7	298	33.7
Above 50	58	7.5	101	11.4
Job Category				
Entry Level Job			21	2.4
First - Line Management			309	35.2
Middle - Management			448	51
Top - Management			101	11.5
Education Level				
University Graduate	743		762	86.3
Masters	28		115	13
Doctorate Degree	0		6	0.7
Marital Status				
Single	353	45.8	170	19.3
Married	355	46	513	58.1
Divorced	48	6.2	135	15.3
Widow	15	1.9	65	7.4

Table (3): The demographic characteristics of the research study

c) **Factor Analysis:** the researcher used Second Order Factor Analysis. It is a statistical tool used to describe variability among observed, correlated variables to potentially lower number of unobserved variables. It is commonly used in social and behavioural sciences.

The results of First Order Factor Analysis using Oblimin rotation and the fourteen factors that the results indicated are shown in Table (4)

Item	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14
1									-0.696					
2														
3													-0.504	
4												0.754		
5														0.61
6													0.738	
7												-0.538		
8														-0.726
9		0.737												
10		0.727												
11								0.608						
12								0.787						
13								0.597						
14		-0.621												
15		-0.636												
16		-0.558												
17					0.508									
18								0.779						
19								0.692						
20					-0.735									
21					-0.662									
22						0.634								
23						0.7								
24												0.721		
25												-0.633		
26														
27														
28														
29														
30	0.645													
31	0.707													
32	0.699													
33	0.596													
34														
35														
36														
37														
38														
39														
40														
41														
42	0.639													
43	0.609													

Table (4) Results of First Order Factor Analysis using Oblimin Rotation

- i) **Principle Component Analysis:** this analysis was conducted on the 43 study variables using rotation in order to identify the items that will be used for the study. The results are shown in Table (5)

Factor	Factor Items	Eigen Value	% of Variance	Cumulative % of Variance
1	30-31-32-33-42-43	7.536	17.525	17.525
2	9-10-14-15-16	2.652	6.167	23.692
3	34-35-36-37	2.248	5.228	28.92
4	27-28-29	1.842	4.283	33.203
5	17-20-21	1.647	3.83	37.033
6	22-23	1.451	3.375	40.408
7	18-19	1.352	3.145	43.553
8	11-12-13	1.308	3.041	46.594
9	1	1.239	2.881	49.474
10	39-39-40-41	1.191	2.77	52.244
11	4	1.124	2.615	54.859
12	7-24-25	1.104	2.568	57.426
13	3-6	1.085	2.522	59.949
14	5-8	1.033	2.403	62.351

Table (5): Results of First Order Factor Analysis and its' Relative Importance

The results shown in Table (5) indicate that there are four groups of factors that could be used to analyze the proposed items. Through the usage of oblimin rotation the proposed items 2 and 26 in the initial questionnaire were omitted from the study. The factors are shown in Table (6).

Factor	FF1	FF2	FF3	FF4
1	0.781			
2	0.568			
3	0.652			
4		-0.617	0.711	
5	0.668			
6				
7	0.624			
8		-0.579		
9				0.84
10	0.746			
11				-0.549
12			0.731	
13		0.583		
14		0.67		

Table (6) Results of Second Order Factor Analysis using Oblimin Rotation

The results in Table (6) show that the four groups (FF1, FF2, FF3, FF4) help in analyzing the items that constitute an Employer of Choice. Table (7) will present the analysis for the second order factor analysis and its' relative importance.

Factor	Factor Items	Eigen Value	% of Variance	Cumulative % of Variance
1	1-2-3-5-7-10	3.541	25.295	25.295
2	4-8-13-14	1.218	8.702	33.997
3	6-12	1.17	8.357	42.355
4	9-11	1.039	7.421	49.776

Table (7) Second Order Factor Analysis and its' Relative Importance

7. Discussion

This research study tried to investigate the factors that constitute employer branding and that would define 'an employer of choice'. Through the review of literature a number of items were posed along with four additional items that were developed from analyzing the results of the interviews. Based on the statistical analysis a number of factors were identified to be of high importance. The researcher grouped the factors of high importance based on their relatedness into a conceptual framework with four main dimensions. The framework is named as the 'BLCG Employer

Branding Framework' as an abbreviation of the four main dimensions namely; Bloom-Live-Connect-Grow. The proposed framework is explained below and is shown in figure (1)

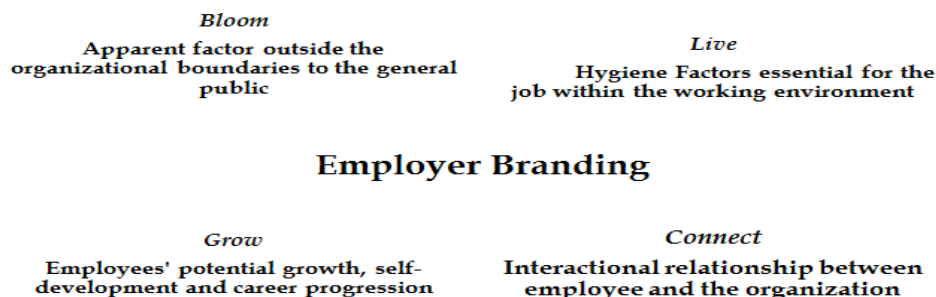
a) Bloom: this dimension represents the apparent factors outside the organizational boundaries. This is what will appear to the general public as well as to the potential applicants about the organization. Bloom dimension acts as the magnetic force that would attract potential applicants. Bloom would also help in retaining existing employees as they feel a sense of self-image and prestige conveyed about their working place to external environment. Bloom dimension includes; prestigious employer, corporate social responsibility practices, positive image conveyed to the general public, type of industry, scope of international operations, comprehensive website, employer is a market leader, range of products and services, employer's ability to differentiate itself from competitors, vision, mission and core values, employer's country of origin and the ability to maintain a positive reputation.

b) Live: this dimension is the actual working environment where employees operate. This basically revolves around the hygiene factors with respect to the working conditions essential for job functioning and execution. Live dimension includes; salary scheme, fair rewards and bonus system, appropriate compensation, sense of workplace empathy and compassion, pleasant working place, supportive corporate culture, fair holidays, appropriate retirement packages, dynamic business process, work-life balance, and good industrial health and safety programs.

c) Connect: this dimension revolves around the aspects tied to the interactional relationship between the employee and the organization. The interaction is a complex process as it involves human readiness to exchange workplace compassion and empathy with other workmates. Connect is realized through existing employees and sometimes conveyed through the word-of-mouth outside the organizational boundaries to the external community. Connect dimension includes; caring about employees' well-being, adopting teamwork and team spirit practices, a positive image is always conveyed through existing employees to the general public, management style and interaction with employees, branded products matching employees personality, and employers' ability to fulfill obligations towards employees.

d) Grow: this dimension is concerned with the factors related to an employee potential growth, self-development and progression in the workplace. Grow dimension includes; long-term career development opportunities, jobs with task variety, challenging opportunities to grown and learn, training and development opportunities, utilization of employees' knowledge and skills, objective evaluation, feedback for employees' development, and job security that allows for future growth.

Figure (1): BLGC Employer Branding Framework



Source: Conceptual Model developed by the researcher

8. Limitations and Directions for future research

This study proposed a framework to identify the factors that constitute an employer of choice. Due to the costs and inability to access other governorates in Egypt as well as overseas countries, the research was only adopted on the Egyptian environment specifically Cairo and Giza governorates. It is recommended that future research should explore and test the proposed

framework and the dimensions relatedness in other domains to provide a better in-depth insight on the addressed factors and to enhance the generalization of the results. The present literature up to the knowledge of the researcher lacks a scale to measure the employer branding construct. It is recommended that future research could use the BLGC framework to develop a scale to measure employer branding construct. In this respect, research methods for scale development and procedural remedies should be fully utilized.

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Call for Papers

INTERNATIONAL JOURNAL OF BUSINESS & ECONOMIC DEVELOPMENT

(Print) ISSN 2051-848X (Online) ISSN 2051-8498

The IJBED, a scholarly and refereed journal, provides an authoritative source of information for scholars, academicians, and professionals in the fields of business and economic development and is published four times a year. The journal promotes the advancement, understanding, and practice of business & economic development. It is peer reviewed and is the main research platform of The Academy of Business & Retail Management (ABRM). Scholars across borders are encouraged in advancing the frontiers of management education, particularly in the area of economic development. Contributions should therefore be of interest to scholars, practitioners and researchers in management in both developed and developing countries targeting a worldwide readership through electronic medium.

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