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The Potential Impact of Inclusive Business on the Supply Chain of Problematic Organizational Culture

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ABSTRACT

The recent business environment along with the social environment are witnessing a significant negative influences, business encounters low performance and problematic organizational culture, society encounters poverty and high level of ignorance due to corruption, educational problems, lack of career opportunities, gendered problems, that all contribute negatively to the approaches of sustainability growth and their role in livelihood. Therefore, inclusive business is an initiative that substantially keeping its for-profit-nature and unsubstantially its not-for-profit nature, contributes to poverty and ignorance reduction through the inclusion of low income communities in its value chain. Despite low communities demand the contribution of inclusive business, there is evidence that organizations of problematic organizational culture also demand the low income communities' contributions. As organizational culture, which is a pattern of collective behaviors and assumptions that are taught to new organizational members and are a way of perceiving and even thinking and feeling, produces a criticized culture in several aspects. Consequently, the recommendations to exchange the benefits amongst all parties are evolving to the extend to help improve the supply chain of organizations, and raise the quality of organizational culture of major problems, by determining and identifying the potential impact of inclusive business on such perspective. This paper examines the expected value of inclusive business for a probability distribution of inclusive business scores for a sample of correlated variables subjected to supply chain improvement and problematic organizational culture, based on estimation of their probabilities to show the appearance of potential impact of inclusive business on the supply chain improvement and problematic organizational culture. My point in this paper has a focus on two major magnitudes in regard to measuring a potential impact on both the development of business model, and on the culture of organizations of problematic aspects. This point places the search of previous studies to the inclusive business in general from different perspectives. Consequently, appears the perspectives to show the concept of inclusive business, the methods to apply, the contributions, the benefits from the approach, the challenges, and the prospected role of education and research.

This paper uses the expected value and variance of a random variables test to analyze potential impact of inclusive business, for the purpose of raising the significant question of: Is there a potential impact of inclusive business on the supply chain improvement and on resolving problematic organizational culture. The Empirical results as for the current stage of this paper shows that 0.87 is the highest probability for the success of inclusive business by 100%, to help assure my estimated findings that there is a significant potential impact of inclusive business on the supply chain of problematic organizational culture. Therefore, this paper recommends more studies currently and in the future in this field whereas results may differ, and be affected by deliberations. Future experimental research could attempt to replicate my findings in a setting that would control for differences in the associated variables and their numbers to measure, and predict the probabilities of their impact on the inclusive business success in organizations.

Keywords: Inclusive business, supply chain, problematic organizational culture, discrete probability and continuous probability.

I. INTRODUCTION

Financial crisis and ethical issues have contributed to the change of various concepts in regard to how the business models are arranged and planned. In the past decades, the organizational culture had led to introducing new perspectives, and to recommend a rethinking and reshaping of the business and the economic development (See, e.g., Heskett 1992; Svyanterk & Bott 2004; Hislop 2013; Vasenska 2013; Kambiz & Aslan 2014). The recent business environment along with the social environment are witnessing

a significant negative influences, business encounters low performance and problematic organizational culture, society encounters poverty and high level of ignorance due to corruption, educational problems, lack of career opportunities, gendered problems, that all contribute negatively to the approaches of sustainability growth and their role in livelihood. Based on studies related to organizational culture, this study analyzes the importance of such concept as it affects organization learning and organizations capabilities and can provide suitable environment for innovation (See, e.g., Skerlavaj et al. 2010; Cameron & Quinn 2011). Also, it shows the way an organization learns and adapts (Vasenska 2013).

Kambiz & Aslan (2014) reveals that organizational culture exerts a complete mediating effect on organizational innovation through organization learning. Therefore, organizational culture has a significant impact on employees, people and groups in a variety of ways by interacting with each other, stakeholders and clients (Ahmed et al. 2014), whereas, organizations are affected by their culture. Hislop (2013) assumes that organizational culture is a significant factor to effective innovation and learning, because organizational culture forms values, beliefs, and work systems that could boost or impede both learning and knowledge sharing. I support in this study that organizations will require different organizational culture depending on the innovation, strategic orientation of the firm and new perspectives for entrepreneurship. As a major problematic issue I address to organizational culture, is the ethical considerations and their effect on the internal control for all aspects in the organization, and more specifically, problematic issue can be in terms of the organizations' supply chain, that is required to be analyzed and studied to highlight the potential of impact of innovations on the short-term and long-term economic growth and sustainability, which are negatively affected by global financial and economic crisis (See, e.g., OECD 2010; LI2& LIU3 2014; Stoffers et al. 2015).

In regard to problem recognition and definition, appears the innovation initiatives, and empirical evidence suggests that organizational culture should consider paying more attention to the factors which affect corporate innovation, while at the same time developing ethical codes and strong internal control (See, e.g., Homburg& Pflesser 2000; Gregory et al. 2009; Hogan& Coote 2013; LI2& LIU3 2014; Serpa 2015). Problematic organizational culture addressed in this study is based on the ethical and internal control issues, and can be concluded from empirical results revealing problems in the area of market – oriented behavior, market and financial problems, employee attitude, organizational effectiveness, knowledge management, and organizational strategy and structure (See, e.g. Homburg& Pflesser 2000; Gregory et al. 2009; Zheng et al. 2010). Also, Mugambi& Kimani (2015) address the problem of the way people and groups interact with each other, with clients and stakeholders. IFC& OECD (2015) address also the problem of poverty reduction and how to overcome through the perspective of inclusive business, which is expected to improve the organizational culture and to have an impact on creating and improving such perspective of inclusive business. As a demand to change and develop problematic organizational culture, I find the IFC& OECD's perspective a value-add to improve and develop such organizational culture.

By analyzing the studies in this regard of inclusive business, I find several evidences, WBCSD &SNV (2006) state that inclusive business is the one which seeks to contribute to the poverty alleviation, by including lower – income communities within its value chain, while not losing sight of the ultimate goal of business, which is to generate profits. This is a concept that can be growing by the organization learning to improve organizational culture. Moreover, inclusive business is interesting for companies because it can offer new opportunities for innovation, growth, and competitiveness at the same time as positive social and development impact, and also interesting for the poor because it brings greater access, choice, and opportunity in their lives and future (See, e.g., Jenkins& Eriko 2010; BIF 2011; Virginie& Filippo 2011; Golja& Pozega 2012).

On the other hand, inclusive business potentially will have a significant effect on including lower-income communities within the value chain and accordingly the supply chain; also potentially will assist in offering new opportunities for innovation and entrepreneurial initiatives. Therefore, it has become an overcome for most of the problematic organizational culture as to improve it and assist in the growth of

ethical values and strengthening internal control, and the consciousness of the organization. Nevertheless, inclusive business encounters challenges stated by researchers that would make this perspective difficult to attain. Jenkins & Eriko (2010) state challenges to inclusive business as lack of infrastructure, low levels of knowledge and skills, and limited access to finance for low – income consumers and producers. In addition, challenges can be associated with poverty on top of the usual uncertainty associated with any business endeavor (See, e.g., Viginie & Filippo 2011; Halme et al. 2012; Wach 2012).

This paper raises the question of: Is there a potential impact of inclusive business on the supply chain improvement and on resolving problematic organizational culture?. In this essence, this paper examines the expected value of inclusive business for a probability distribution of inclusive business scores, for a sample of associated variables subjected to supply chain improvement and problematic organizational culture, based on estimation of their probabilities, to show the appearance of the potential impact of inclusive business on the supply chain improvement and problematic organizational culture. This paper uses the expected value and variance of a random variables test, to analyze the potential impact of inclusive business. The Empirical results as for the current stage of this paper shows that 0.87 is the highest probability for the success of inclusive business by 100%, to help assure my estimated findings that there is a significant potential impact of inclusive business on the supply chain of problematic organizational culture.

The rest of the paper is organized as follows. Section II shows the research hypotheses. Section III shows the data and the methodological issues to specify the method used in the measurement of the probabilities of the inclusive business success and associated variables. Section IV. Discusses the method used to obtain the results, and the results of the main empirical test. Finally, section V. shows the conclusion and discussion, and their implications and limitations.

II. LITERATURE REVIEW & HYPOTHESES

The study of the perspective of inclusive and the potential impact on improving the supply chain is significant for the economies of both the developed and developing countries, particularly when introduced to problematic organizational culture.

My point in this paper has a focus on two major magnitudes in regard to measuring a potential impact on both the development of business model, and on the culture of organizations of problematic aspects. This point places the search of previous studies to the inclusive business in general from different perspectives. Consequently, appears the perspectives to show the concept of inclusive business, the methods to apply, the contributions, the benefits from the approach, the challenges, and the prospected role of education and research.

The recent trends in searching the inclusive business, show the major motivations behind the concept, Hamilton (2013) highlights some of the outcomes achieved by a food lab approach that creates a pre-competitive space for member organizations, to pilot innovations through business driven supply chain projects, and provides opportunities for diverse stakeholders working on sustainability, to meet, learn, and support each other in better leaders for change in their organizations, and in larger systems. To my view, any innovation such as this food lab can fulfill the value chain of organizations, and promote the inclusive business approach from various perspectives in the business.

Karnani (2007) & Sodhi et al. (2014) demonstrate that firms can use their supply chain to promote the inclusive business that support poverty alleviation, by incorporating poor producers into their supply chain.

Viswanathan et al. (2007) & Goyal et al. (2014^a) show how the base of pyramid in the business model (BOP) represents lack of paying capacity, lack of market awareness, and increasingly prevalent market imperfection, like, information asymmetries, market fragmentation, weak legal institution, weak

infrastructure, resource scarcity and poverty penalty. This sort of lacks helps create new business models and overcome various socioeconomic problems.

Goyal and Bruno (2014^b) state how scholarly literature highlights the significance of social entrepreneurship as a means for targeting the (BOP) markets, as this perspective recommends the shift in orientation from the economic growth towards the socio-economic outcomes, as the basis for designing and evaluating the business models of the social enterprises entering the BOP markets. Tenzer& Pudelko (2015) state the contributions of business sector in Africa and with partnership with Europe to the creation of employment, education, job opportunities and training of young people, ecological sustainability, economic diversification and supportive climate for start-ups, to enable this contributions, Tenzer& Pudelko find entrepreneurship are calling for favorite policies, reliable institutions, access to financial services and a good infrastructure, and this will certainly contribute to the sustainable development.

By a backward look, Arce (2009) & Porter et al. (2011) state that companies had to change the way they previously appeared to maintain their competitive advantages in the global markets, by creating shared value, innovation and growth, and by the time, it is obvious how inclusive business can contribute to different advantages for both firms and societies. Whereas, social problems such as poverty alleviation, sweatshops and child labor, negatively affect both the welfare of society and the productivity of firms in the supply chain.

Rodroguet et al. (2016) demonstrate the initiatives to enhance social sustainability in the supply chain and poverty alleviation, through supplier development programs and inclusive business approaches. Main while, Pagell & Shevchenko (2014) show some theoretical issues are compounded by measures that do not truly capture the importance of these initiatives and methods that are better at looking backwards than forwards, and propose significant changes in the supply chain management in how such field conducts research.

Various studies show the benefits from the development and enhancement of the approaches recently available for studies and applications, Tullao et al. (2015) study how to establish the linkage of enhancing human resources development in an economy attaining inclusive growth, which I consider a significant attempt for promoting the approach of inclusive business and the organizational culture, and also promoting the benefits expected from this approach, to grow not only the economy but the socio-economy perspectives.

McKague et al. (2015) offer an integrated framework for poverty alleviation including social entrepreneurs, government, and civil society organizations to reduce poverty and improve lives of poor, by both the private, and the public and governmental sector. Which I also consider one of the important studies to promote the approach of inclusive business, that works to bring us closer to a globally inclusive market system, that creates value for all, reduces poverty, and improves lives of the poor. McKague et al. (2015) also present a frame work that goes well beyond engaging the poor as consumers to highlight the multiple roles that the poor can play, as sources of information, procedures, employee and distributors, as well as consumers.

Ngoasong et al. (2015) shows the nature and operations of impact funds in African economies, as an impact investing and business development in Africa, that has a significant effect on economies development in socially responsible investing and capacity building for inclusive business development in African economies. Various studies show the importance of the inclusive development, integrating poverty and environmental concerns in value-chain analysis, the strategies for development, the inclusive development, and value chain analysis (See, e.g., Cupta et al. 2015; Bolwing et al. 2010; Bowen 2010; Helmsing and Vellema, 2011).

Cassim and Dong (2015) show interdisciplinary engagements with inclusive design, ensure a balance of skills, strategic selection of team leaders, and lead users based on extensive back ground knowledge, careful pacing of the workshop to the time available, and framing the design brief within an inclusive context. Ros-Tonen et al. (2015) show the aim to value-chain collaboration as to increase smallholder producing and market integration, and find a documentation of higher productivity, better incomes and innovations. In this regard, all the studies can shape the future of inclusive business when applied to promote both firms and societies, by changing the culture of the firms and societies.

Decade ago, and nowadays, the appearance of corporate responsibility, focuses on supply chain management, addressing both economic aspects as well as social and environmental aspects, and also increasing control over the supply chain and quality, and expand the view of value creation (See, e.g., Raynolds et al 2007; Seuring & Muller 2008; Porter & Kramer 2011; Fayet et al. 2014). The studies for supply chain and the relation to the poor and low income societies in the field of sustainability and creating values are few to show the approach of the required and significant appearance to the population of organizations in all economies.

Rodriguez et al. (2016) show that investment in knowledge transfers routines and logistical resources in order to successfully integrate poor suppliers. This help to promote the approach of inclusive business and its role to contribute to creating values in the economy. McKague et al. (2015) emphasize and address the role of private sector and the government to alleviate poverty in low-income market contexts, where poverty challenges and particularly persistent and the functioning of markets and institutions of governance, are often limited.

Therefore, in the literature, I find few papers currently raise objectives to improve knowledge and understanding of impact investing, including the constitution and strategies of impact funds, the process of creating inclusive businesses, regulating sustainability, organizing corporate social responsibility in international product chains, studying the conditions for effective market based governance and supply chain governance systems and development, followed by studying inclusive business models and what degree of innovation and positive development, and their role in enhancing supply chain in organization and their culture (See, e.g., Raynolds et al. 2007; Cramer 2008; Vermeulen 2010; Hamilton 2013; Fayet and Vermeulen 2014; Ngoasong 2015).

Laven (2009) & Riisgaard (2010) find that business upgrading strategies aim to move producers up into the value chain, either by adding value to their process or by acquiring new functional positions. And also by integrating poverty, and environmental concerns, into value chain analysis, hence, empowering rural entrepreneurs and poverty alleviation and strengthening the concept of inclusive business.

Gold and Heikkurinen. (2013) introduce the roles to strengthening the (BOP) by new ways to make business models and operations beneficial for poor communities, showing the success of applying the new perspectives for sustainable food production. Few important studies promote the large initiative to begin collaboration with the poor, to find the best tools that help them reduce their own poverty, and find inspiration and purpose in helping the poor improve their lives (See, e.g, Ros-Tonen et al 2015; Mckague 2015; Balkema& Romijn 2015; Fisk et al. 2016).

On the other hand, literature emphasizes on the link between education and the inclusive business. Tereso et al. (2015) find the improvement of education leads to inclusive development and growth pursuing entrepreneurial options. Also, Fisk et al (2016) calls to action for the research community, to contribute to perspectives of helping improve poor lives, and how academic research can contribute to making a difference in the world.

Despite, papers find the challenges for starting initiatives, due to the lack of knowledge about the context of poor suppliers, the high transaction costs of doing business with poor suppliers, and the potential conflict between alleviating poverty and the firms' economic performance (See, e.g., Margolis & Walsh 2003; London et al. 2010).

To my knowledge in this field of study, no papers have directly measured the potential effect of inclusive business on improving the supply chain of business particularly for the business with problematic organizational culture. Thus, I measure in this study the potential impact of inclusive business on the supply chain of problematic organizational culture using an empirical approach of probabilities to predict the success of inclusive business, unlike most of the normative literatures in this field.

I hypothesize for this paper, two hypotheses as, H1: There is a potential impact of inclusive business on the supply chain of problematic organizational culture, and H2: There is no potential impact of inclusive business on the supply chain of problematic organizational culture. As to measure whether there will be an impact of inclusive business on the supply chain of problematic organizational culture, therefore I use estimations of probabilities to help predict this potential impact.

III. DATA & METHODOLOGICAL ISSUES

The challenge of this paper is clear in the selection of data to help predict the idea of this paper. Thus, in the essence of estimations derived from interviews, discussions, searching and readings in the business community in various fields, I suggest sitting the data based on the inclusive business percentages of success to contribute to the supply chain of problematic organizational culture (x). Whereas, I assign the success percentages for a major 6 estimations ranging from 0 to 100%, as, 0%, 20%, 40%, 60%, 80% and 100%. Subsequently, the significance of expected number of variables (n) to contribute to the success of inclusive business are estimated based on interviews, discussions, searching and readings, these variables are estimated to be 14 significant variable related to organization engagement with multi stakeholders, regoverning the market, the business models to use for alleviating poverty, intrapreneurial bricolage in multinational corporations, innovations and inequalities, inclusive development, new opportunities for innovations, positive social and development impact, including low-income community in the value chain, creating jobs and livelihood opportunities for low income people and households, expansion of employment, entrepreneurial opportunities, innovate-operate and grow, and create new markets, that all are expected to attain the inclusive business success to the contribution to the supply chain and problematic organization culture.

These 14 variables are associated to the inclusive business percentage of success, as there is an estimation that with zero variables there is a $P(x) = 0.00$ probability of contribution to the success of inclusive business by 0%, with 1 variable there is $P(x) = 0.07$ probability of contribution to the success of inclusive business by 20%, with 2 variable there is $P(x) = 0.14$ probability of contribution to the success of inclusive business by 40%, with 3 variable there is $P(x) = 0.21$ probability of contribution to the success of inclusive business by 60%, with 4 variable there is $P(x) = 0.28$ and 0.30 probabilities of contribution to the success of inclusive business by 80% and 100% respectively.

Table (1) presents the sample observations by percentage of success of inclusive business (x) and the probability distribution $P(x)$ based on the estimations of expected number of variables (n) to contribute to the success.

TABLE 1
SAMPLE OBSERVATIONS BY PERCENTAGE OF SUCCESS OF INCLUSIVE
BUSINESS & THE PROBABILITY DISTRIBUTION

Inclusive Business Percentage of Success to Contribute to Supply Chain & Problematic Organizational Culture	Expected Number of Variables to Contribute to the Success of the Inclusive Business (*)	The Probability Distribution
<u>(x)</u>	<u>(n)</u>	<u>P(x)</u>
0%	0	0.00
20%	1	0.07
40%	2	0.14
60%	3	0.21
80%	4	0.28
100%	<u>4</u>	<u>0.30</u>
	<u>14</u>	<u>1.00</u>

(*) (n):

Organization engagement with multi stakeholders. Regoverning the market. The business models to use for alleviating poverty. Intrapreneurial bricolage in multinational corporations. Innovations and inequalities. Inclusive development. New opportunities for innovations. Positive social and development impact. Including low-income community in the value chain. Creating jobs and livelihood opportunities for low income people and households. Expansion of employment. Entrepreneurial opportunities. Innovate-operate and grow. And create new markets.

IV. METHOD & RESULTS

Model:

To predict the potential impact of inclusive business on the supply chain of problematic organizational culture, I examine the expected value of inclusive business percentage of success for a probability distribution of inclusive business scores (x), for a sample of associated variables (n) subjected to supply chain improvement and problematic organization culture and based on estimation to their probabilities, to show the appearance of prediction success.

Therefore, I use the MINITAB statistical package, to run the expected value and variance of random variables test, in order to analyze the potential impact of the inclusive business, and then I support this examination by discrete probability distribution and continuous probability distribution. This analysis to obtain takes the following formats:

$$E(x) = \mu = \sum(x) P(x) \dots\dots (1)$$

Where:

$E(x)$ = the expected value of the inclusive business percentage of success
 = μ (The mean)

x = Inclusive Business Percentage of Success to Contribute to Supply Chain & Problematic Organizational Culture

$P(x)$ = The probability distribution of the number of variables that will contribute to the success of the inclusive business

$$Var(x) = \sigma^2 = \sum(x - \mu)^2 P(x) \dots\dots (2)$$

Where:

- $Var(x)$ = the variance summary of the variability in (x)
- x = Inclusive Business Percentage of Success to Contribute to Supply Chain & Problematic Organizational Culture
- μ = the mean
- $P(x)$ = The probability distribution of the number of variables that will contribute to the success of the inclusive business.

Results:

Table 2 shows the results of the expected value of the inclusive business percentage of success to contribute to the supply chain improvement and problematic organizational culture (x) , the table shows the calculations as the expected value of $(x) = \sum(x)P(x) = 72$ as the percentage of success of using the inclusive business to contribute to the supply chain and problematic culture for all variables. Therefore, I can initially predict that 72% to be the percentage of the success of the inclusive business. Thus, over the time and by the development of inclusive business, the percentage of inclusive business success can be predicted using the 72% expected value, and to predict average number of variables (n) that would contribute the success of inclusive business, and as I estimated 14 variables (n) , so, $(14 \times 72\%) = 10$ variables approximately, and can be predicted as to help contribute to the success of inclusive business, and their importance can be ranked based on the highest probability in the probability distribution.

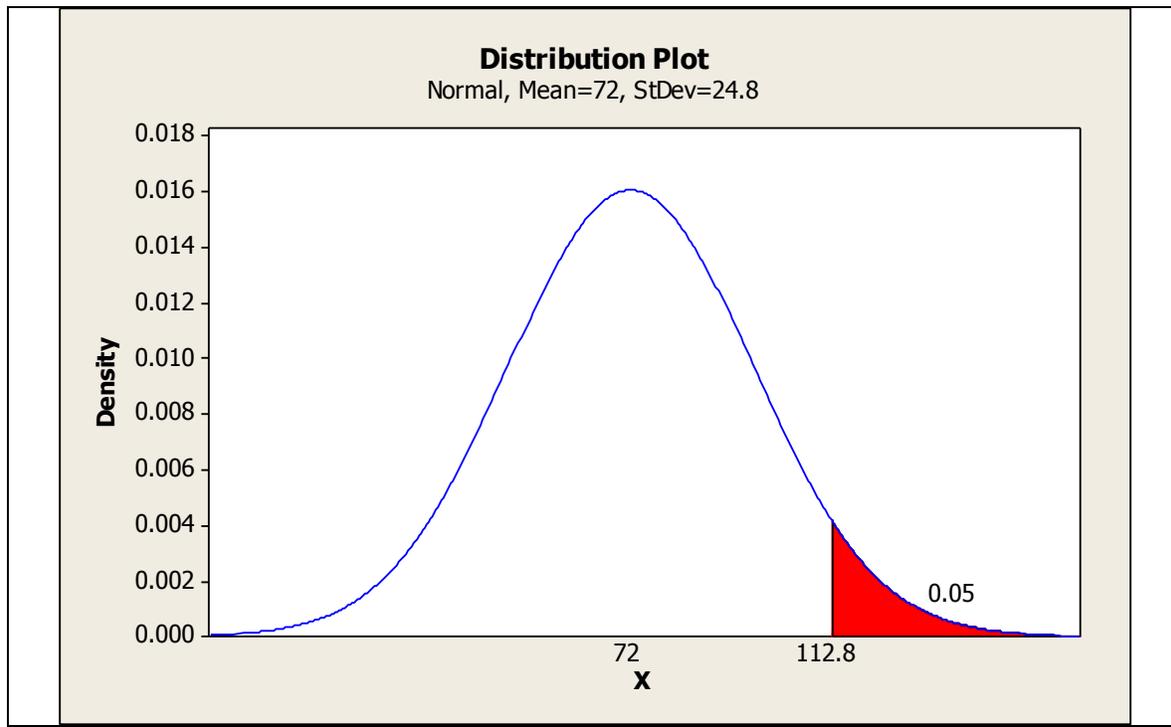
Table 2 also shows the variability summarized by the variance $Var(x)$ which = 616, to indicate how far a particular percentage of inclusive business success from the expected value $Ex(x)$, and in this regard it is $616 - 72 = 544$, and the standard deviation = 24.8 indicating low variability and significant prediction for the success of inclusive business.

TABLE 2
RESULTS OF EXPECTED VALUE OF INCLUSIVE BUSINESS PERCENTAGE OF SUCCESS

<u>x</u>	<u>$P(x)$</u>	<u>$xP(x)$</u>	<u>$\sum(x)P(x)$</u>	<u>$x-Ex(x)$</u>	<u>$[x-Ex(x)]^2$</u>	<u>$\frac{[x-Ex(x)]^2}{P(x)}$</u>	<u>$Var(x)$</u>	<u>$Std. Dev.$</u>
0%	0.00	0.0	72	-72	5148	0.00	616	28.8
20%	0.07	1.4		-52	2704	189.28		
40%	0.14	5.6		-32	1024	143.36		
60%	0.21	12.6		-12	144	30.24		
80%	0.28	22.4		8	64	17.92		
100%	0.30	30.0		28	784	235.2		

Figure 1 shows the normal probability distribution for the inclusive business percentages of success, as it is optimal to have the percentage of success 100% with the $Ex(x) = 72$ and standard deviation = 24.8, where it shows the expected percentage of inclusive business success for each percentage in the range of 0%, 20%, 40%, 60% and 100%. The Minitab shows the normal probability distribution as the area of $P(x \leq 100\%) = 0.87$ and the shaded area on the scale = 0.05.

FIGURE 1
THE NORMAL PROBABILITY DISTRIBUTION FOR THE INCLUSIVE BUSINESS PERCENTAGES OF SUCCESS



The normal probability distribution for the inclusive business percentages of success, as it is optimal to have the percentage of success 100% with the $Ex(x) = 72$ and standard deviation = 24.8, where it shows the expected percentage of inclusive business success for each percentage in the range of 0%, 20%, 40%, 60% and 100%.

Table 3 shows the overall normal probability distribution as an indication for the highest probability of inclusive business success.

TABLE 3
THE OVERALL NORMAL PROBABILITY DISTRIBUTION FOR THE PERCENTAGE OF SUCCESS OF THE INCLUSIVE BUSINESS

<u>Inclusive Business Percentage of Success to Contribute to Supply Chain & Problematic Organizational Culture</u>	<u>The Normal Probability Distribution</u>
<u>(x)</u>	<u>P(x)</u>
60%	0.314
100%	0.870
0%	0.001
80%	0.626
20%	0.018
40%	0.098

On the other hand, continuous probability distribution can also assure and confirm the percentage of success to inclusive business, as the results show that $P(x \leq 100) = 0.87$, which is identical to the normal probability distribution at percentage of the 100% success. This paper results are supportive to the potential impact of inclusive business on the supply chain of problematic organizational culture, as it is potential that 0.87 is the probability of the success of inclusive business by 100% to help attain the H_1 of this paper. This can be interpreted by the significant impact this perspective is expected to help as to contribute to the business model and the community, which is encouraged by the majority of managers and economic regulatory parties in the international economy and organizations of high quality organizational culture.

V. CONCLUSIONS & DISCUSSION

In this paper I examine the potential impact of inclusive business on the improvement of the supply chain of problematic organizational culture, to help contribute to the sustainability, economic growth, reduce poverty and improve organizational culture by learning and providing suitable environment for innovation and entrepreneurship. I find an empirical evidence that 0.87 is the highest probability for the potential success of the inclusive business by 100% that is based on my estimation to the expected significance of this paper's perspective.

I use for the study in this paper, the expected value and the variance tests for analysis. In addition, I use more probability analysis for more confirmation to the empirical evidence, I find additional empirical evidence to support and confirm the paper's perspective. The outcomes of this paper lead to the potential success of inclusive business, to help assure my estimated findings of the potential impact on the supply chain of problematic organizational culture.

Although it is difficult to attain inclusive business success, my analysis is based on optimistic estimation for the probability distribution, that this perspective will succeed, based on the rationality and necessity of sustaining an economic growth and solving problematic aspect resulted from economic and financial crisis and problematic organizational culture, raised by ethical issues and internal control issues.

Future experimental research could attempt to replicate my findings in a setting that would control for differences in the associated variables and their numbers, to measure and predict the probabilities of their impact on the inclusive business success. Future researches also can encompass the appropriate prediction analysis and methods to predict the inclusive business success, and consequently, the impact on the supply chain and organizational culture over organizations of different types and nature, moreover, it is recommended to replicate this study not only on corporation but on the governmental organizations and not-for-profits organizations.

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**Diversity and Equity in the Middle East:
Beyond Anomie and Dysfunction**

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ABSTRACT

Change in the Middle East and adjacent regions often results in strife, tension, and cultural weakening. This tendency is discussed with reference to the concept of anomie in which socially acceptable goals can no longer be achieved in socially acceptable ways. Facing such situations, distinctive groups may benefit from concepts such as the “concurrent majority” which is a defense of the rights and heritage of minority groups. The Middle East might benefit from such strategies such as this.

Keywords: Ethnic groups, Anomie, economic development, tyranny of the majority, concurrent majority, social equity.

INTRODUCTION

Many people view the Middle East in simplistic ways that envision great cultural uniformity (or perhaps assume that homogeneity should be established.). In reality, of course, great diversity exists and this variation is a positive asset. Nevertheless, rapid social and economic changes (and/or the pressures associated with them) put many Middle Eastern ethnic and minority groups under stress and peril.

Facing such circumstances, these enclaves often seek relief in the form of social equity and self-determinism. Opponents of such initiatives, in contrast, seek to have all people (members of cultural minorities included) act in accordance with some sort of universal standards that they advocate. Differences of opinion of this sort can (and have) led to tensions and conflict. This paper contributes to the dialogue regarding how disagreements such as these can be resolved.

CHANGE, STRESS, AND PAIN

In the Middle East, as elsewhere, people are often adversely affected by cultural, social, economic, and/or technological change. Being asked to adhere to traditions that are not their own can be especially painful. In other words, “minorities” (envisioned broadly as those lacking power and control) often suffer due to contact with powerful “majorities” who seek compliance to their standards. Under these conditions, significant dysfunction can result.

Mainstream researchers discussing these pressures (Appelberg, Honkasalo, and Koskenvuo 1996) report that people who experienced a significant conflict at work during the previous 5 years are more likely to be diagnosed with a psychiatric problem. Apparently, significant stress in dealings with other people can result in detrimental and hurtful ramifications.

The average person who experiences difficulties on the job, however, is still a member of a viable and intact culture or society. Presumably, the cultural and social support available to these individuals continues and, in the process, provides a degree of comfort and balance even when these people experience hardships. When away from work, furthermore, these people are able to participate in the larger community and gain a respite from the troubles they face. Even when this comfort is available, the researchers indicate that mental illness and the pain associated with it tends to increase. This situation promotes dysfunction.

The relative comfort provided by cultural stability can be juxtaposed with the opposite situation where the entire culture, heritage, and traditions of a people are under attack, weakened, rendered passé, or even

destroyed. If people within a viable and functioning culture are adversely effected merely by “on the job” pressures, those whose entire heritage, traditions, and culture are under attack are likely to be even more vulnerable to adverse psychological responses.

For many years, advocates for ethnic groups have understood that change has hurtful potentials that need to be proactively addressed. The necessity to do so is particularly important when a people’s way of life has been quickly transformed, weakened, or destroyed by some unanticipated, uncontrolled, and/or unmitigated onslaught. The agendas or actions of some “majority” (however defined) are typical catalysts for maladies of this sort.

Consider the case of Ishi, the lone survivor of a California (USA) tribe who was dubbed the “Last Savage” by the media and became a tourist attraction as well as the subject of anthropological research in the early 20th century (Kroeber 1964).

Many Native American thinkers point to the treatment of Ishi as a classic example of oppressive exploitation in which outsiders first destroyed the man’s way of life and then turned him into a commodity to be studied and gawked at. Although such conclusions are understandable, the story and message of Ishi is much more complex than that. It is chronicled by Theodora Kroeber in her *Ishi: The Last of his Tribe* (1964) which explores the relationship between her husband (anthropologist Alfred Louis Kroeber) and Ishi as each comforted the other.

Theodora observes that around the time that Ishi stumbled into the modern world, starving and alone, Kroeber had suffered his own grievous loss. His first wife had died before her time and, as a result, Kroeber was thrown into a profound and disabling depression. Possessing great knowledge of the indigenous people of California, however, Kroeber was asked to help calm this unruly “wild man” who had unexpectedly appeared. Kroeber found a grief stricken soul who had lost everything, not just a wife. Ishi’s world was completely gone and everyone and everything that was important to him was dead. Nothing remained. Ultimately, Kroeber realized that suffering over a lost wife was relatively insignificant when compared to the agony of a victim whose entire social universe had quickly and irreversibly become extinct. In the process of helping Ishi adjust and cope, the grieving widower learned to deal with his own pain. Both men found salvation by helping each other.

The point is that people often feel profound and disabling pain when their heritage is stripped away. Although Ishi provides an extreme example of such anguish, this type of cultural and social loss is very common among ethnic groups who are confronted by the mainstream world or other powerful forces beyond their control. This pain should be recognized as well as the potential for dysfunction stemming from it. Those involved with the Middle East need to be aware of the ramifications of cultural undermining and/or dismantling. Strategies need to be developed to preserve cultures as well as mitigating the negative aspects of change and loss.

A classic discussion regarding the discomfort triggered by change is presented by G. N. Appell who observes that a strong and robust cultural heritage can help people cope with the impacts of traumatic change. Appell reminds us that “A society undergoing change...has a right to access its cultural traditions, its language and its social history” (Appell 1977 14) because these cultural assets can help temper the pain and disorientation caused by what he calls the social separation syndrome which “involves role conflict and ambiguity, threat to one’s self esteem, and an impaired social identity”.

Discussing this social and psychological threat, Appel continues, “Social bereavement arising from social change seems to follow a developmental sequence similar to personal bereavement...There is first a period of denial as numbness accompanied by anxiety, fear, and feelings of threat to one's identity. This is succeeded by a phase of frustrated searching for the lost world or individual, hoping for a reversal and then

bitter pining and unrelieved sense of pain...Following this is a period of depression and apathy...Finally there is the phase of reorganization when the bereaved begins to build new plans and assumptions about the world” (1977 14.)

Although some of the details of Appel’s vintage observations might be dated or metaphoric, the gist of his message continues to resonate clearly. Cultures are powerful coping devices that provide grounding, practical tools, comfort, and a sense of identity. They offer solutions to the problems that people face as well as presenting suggestions regarding how to think, act, and respond. If these tools are undercut, rendered passé, or destroyed, a void can emerge causing people to lack the ability to live in a socially and psychologically healthy fashion.

Although this vulnerability is real, it does not inevitably lead to cultural extinction. In a classic observation, for example, David Maybury-Lewis reminds us that “There is no natural or historic law that militates against small societies. There are only political choices.” (1977 58). Thus, the demise of ethnic groups is avoidable even if popular paradigms of cultural evolution and extinction reflect the world view (and perhaps the priorities) of many advocates of economic development, change, or conformity.

ANOMIE: THE DISRUPTION OF CHANGE

Social scientists recognize that change can lead to pain that triggers hurtful dysfunction. In the late 19th century, Emil Durkheim, for example, demonstrated how unhappiness and despair that is correlated with social displacements can lead to a growing suicide rate (Durkheim 1893). Durkheim explained this relationship with reference to what he called “anomie” which refers to tensions and alienation triggered by significant disruptions or alterations in the daily life that people experience. Durkheim clearly recognized that unmitigated social change can produce dysfunctional, harmful, and counterproductive behavior. Durkheim envisioned anomie as an inconsistency between (1) the standards of socially acceptable behavior and the goals embraced by a social group and (2) the realities that actually exist. When the inconsistency between the two is great, the rules of society begin to deteriorate or break down creating a chaotic and unpredictable environment capable of launching alienation, sorrow, a feeling of hopelessness, and hurtful responses.

In the 1940s and 1950s, Robert Merton (1957) expanded Durkheim’s concept of anomie, arguing that the norms of society provide individuals with (1) goals to which they should aspire, on the one hand, and (2) conventional methods for achieving these objectives, on the other. Merton understood that over time, the social structure (or the socio-economic milieu in which a community exists) may change to such a degree that its members are no longer able to attain sanctioned and honored achievements in the traditionally acceptable manner. Under such conditions, the predisposition for deviant and/or dysfunctional behavior tends to increase.

Social and economic development projects or initiatives involving ethnic groups can easily create conditions that give rise to anomie. The ways in which people respond under these conditions, however, vary with some alternatives being more productive and positive than others. Merton provides a typology of responses to anomie that includes 1. Conformity, 2. Innovation, 3. Ritualization, 4. Retreatism, and 5. Rebellion (Merton 1957). They can be described as:

Conformity is the situation in which people continue to embrace the goals of their society and seek to achieve them in the traditional socially acceptable way. Conformers continue to respond in the manner they did before the pressures causing anomie were present. Conformity is a conservative response and it preserves traditional relationships between people. Conformity, however, can inhibit the ability to adjust to new conditions.

Innovation is a situation where people embrace the goals of society but attempt to achieve them using new methods that might not be socially acceptable. Mainstream sociologists often characterize these methods as illegal and antisocial behavior. Among ethnic groups, however, innovation might include responses that while violating traditional norms or expectations result in productive and moral adaptation. If so, embracing productive, but taboo, behaviors as legitimate methods for achieving socially acceptable goals might be a positive response that benefits society.

Ritualization is a situation where the person acts according to the norms of society but loses track of the goals to be achieved. In this case, people begin to act in a rote manner using tradition as a guide with little focus upon the costs vs. the benefits of doing so. This type of response is not strategic and is not likely to be productive. When people follow the old ways merely as an end in itself, the ability to respond in a productive and beneficial manner is reduced.

Retreatism is a situation where the person rejects both the cultural goals and the institutionalized methods for achieving them. Although people might reject the status quo, they do not necessarily embrace any positive or beneficial alternative. The potential for dysfunctional responses, such as alcohol abuse, increases. While under the influence of alcohol or drugs, for example, the victim might be temporarily distracted from the plight faced, but fail to respond in an effective manner.

Rebellion is a situation where the person (1) rejects both the goals that society provides and the traditional means of achieving them while (2) simultaneously embracing substitutes that take their place. Under such circumstances, the break with the old ways is profound and complete. Massive changes in thought and attitude take place when the old ways are discarded and new alternatives embraced. Chaos might result. Different factions might arise in conflict with one another. The situation, created by widespread rebellion, can be particularly painful to those who hold on to tradition and/or fear change.

Anomie, therefore, can spawn a wide variety of responses that are directly related to how individuals and the community deal with the pressures faced. These alternatives are compared in Table 1

In conclusion, the concept of anomie deals with the tensions caused by social change. Ethnic groups in the Middle East and elsewhere can use this model to better understand the variety of ways in which people cope with the disruptive pressures facing them. In recent decades, various refinements, such as *strain theory*, have been developed that focus upon how and why people respond to stress. Although such theories are often used to depict criminal and antisocial behavior and its causes, the same approach can be used to examine any significant change in behavior, good or bad, that people exhibit. On many occasions, reactions to anomie are disruptive and painful. Other responses may be positive. By understanding this range of reactions, Middle Eastern strategists and policy makers can recognize and more effectively mitigate significant side effects of cultural contact and change.

REPRESENTATIVE EXAMPLES OF DYSFUNCTION

On some occasions, unmitigated change and stress can cause people to exhibit rather bizarre beliefs and actions. Three such examples are the ghost dance (Mooney 1896 Kehoe 1989) and the “cargo cult” (Harris 1974, Inglis 1957 and Worsley 1957) and the Cultural Revolution in China. They are case studies of cultural adaptation gone wrong.

The Ghost Dance was an influential late 19th century religious movement among Native Americans. Its most prominent leader was a visionary named Wovoka who intertwined aspects of local traditions with a

TABLE 1
RESPONSES TO ANOMIE

RESPONSE	DESCRIPTION	ANALYSIS
Conformity	The traditions of the culture are preserved. People and the community continue to be motivated and act as in the past	The community and its culture is stable, but strategically responding to circumstances is minimal. Little positive adaptation.
Innovation	Although the goals of society remain intact, people embrace new methods of achieving them.	Although maintaining the goals of the community, the means of achieving them evolves to reflect new circumstances.
Ritualization	People continue to act according to the old conventions of behavior although doing so has little ad hoc value.	Although the ways of the past continue to be embraced, strategically responding to new conditions is insignificant.
Retreatism	People withdraw and abandon the old ways, but do not embrace a new alternative.	Psychologically, people are cut off from their heritage. Dysfunctional responses are likely.
Rebellion	New goals and new codes of behavior are embraced.	People replace both the traditional goals and the strategies that are used to achieve them.
<p>DISCUSSION</p> <p>When ethnic groups confront change and anomie, a number of possible responses exist. The choice people make can have far-reaching consequences regarding the viability of their culture and the mental health of individuals. By examining the possible responses to particular situations, people can better predict the consequences of change and the anomie it causes. The people of the Middle East need to be aware of anomie and responses to it.</p>		

new religion. Suggestions, such as living in a more productive, moral, and harmonious manner were beneficial and can be viewed as positive and productive aspects of the movement.

Others demands, however, were counterproductive and hurtful. , Wovoka, for example, taught that if a certain dance was properly performed, the dead ancestors would come back to life, herds of buffalo would return, the white intruders would go away, and the old way of life would be restored. None of these projections, unfortunately, reflected reality. Acting according to them proved to be tragically counterproductive.

Some devotees were even convinced that if they wore “ghost shirts” they could not be killed by the guns of the white man and, therefore, victory was assured. The emerging ghost dance and the hope it provided appealed to many indigenous people who had suffered grievously due to reservation life, sickness, cultural decline, and governmental policies that sought to undercut the local Native American heritage. Sadly, ghost dance activities led to the massacre at Wounded Knee, the last major bloodbath of the Indian Wars.

Viewed from the perspective of anomie, the ghost dance can be viewed as an example of conformity in which the traditions of the culture were largely preserved and embraced, albeit in an unproductive manner. People were encouraged to look to the past, ignore reality, reject the new order of things, and act accordingly. Unfortunately, by doing so the actual circumstances being faced were not addressed in any meaningful manner. The result was disastrous.

The cargo cult, usually associated with Melanesia, involves people whose lives were hurtfully transformed and disrupted by social and economic change associated with outside contact during the early 20th century. Apparently, these reactions to circumstance were attempts by indigenous people to reassert control over their lives in a world that was being irrevocably changed in ways that undermined the old economic system and way of life, leaving the local people in a precarious and bewildering situation.

The responses to these hurtful circumstances are well known. When intrusive foreigners began to gain a foothold in Melanesia, members of the indigenous community noticed that these powerful outsiders built

airports and harbors and then waited for airplanes and ships to arrive with great wealth. Apparently, the local people, becoming desperate and jealous, wanted their share of the cargo. One ploy they used was to build phony airports in the misguided belief that by doing so they could magically attract their own supernatural airplanes and gain affluence as a result.

Although such responses are typically associated with some charismatic leader, a common explanation is that these cargo cults are responses to sorrow, fear, and anxiety caused by rapid and uncontrolled change. Although such strategies might be associated with ignorance and, superstition coupled with a lack of familiarity with modern economics and technology, the most important catalysts seem to have been desperation, hopelessness, and disappointment.

Viewed from the perspective of anomie, the cargo cults appear as innovative and/or rebellious responses to anomie. Devotees of the cult, for example, embraced new ways to achieve goals (luring cargo carrying planes by building bogus airports) even though other aspects of the society might have remained intact. This behavior might also be reflective of rebellion in which new goals (a desire for western goods) was accompanied by new economic strategies (luring cargo planes). In any event, a major adjustment (although counterproductive) took place. It was precipitated by profound tensions in the culture and economy caused by rapid outside contact.

Such reactions do not just occur among small scale cultures made up of undedicated people. Consider the Cultural Revolution in China during the 1960s and 1970s when militants encouraged by Chairman Mao rejected and attempted to destroy the rich cultural heritage of the Orient. This movement (Lee 1978, King 2010) sought to eliminate remnants of Western business practices as well as aspects of Chinese civilization that were considered old fashioned and holding China back from progress. This reaction appears to have been triggered by the social and economic troubles that China was experiencing during that era.

As a political movement, various purges eliminated leaders who were considered to be too connected with the bourgeois. Culturally, many Chinese, especially the young, lashed out against China's rich heritage. Millions of people were harassed, shamed, and punished because they were identified with Chinese civilization or its traditions and knowledge. Intellectuals, teachers, writers, and cultural leaders found themselves under attack.

Innumerable relics from China's impressive historic legacy were destroyed or mutilated. Thus, when I visited the tomb of Confucius a few years ago, I discovered that his grave marker had been badly damaged during the excesses of that era. Today, of course, repairs have been made and the Chinese people (and the rest of the world) hold Confucius in the highest of esteem. During this period, however, anyone who was identified with the past, even world famous philosophers, became vulnerable.

Archaeological remains, archives, art works, and artifact were destroyed in a massive wave of devastation. Thus, the Cultural Revolution is an example of people strongly rejecting their culture and all it stood for. According to the theory of anomie, this can be viewed as a case of how people react when they could not achieve socially acceptable goals in a socially acceptable manner. It took the form of rebellion in which the old ways were rejected and replaced with alternatives that were distinctive and dissimilar from the past. Although this movement was the work of overenthusiastic zealots (and not officially condoned by the government), the destruction was profound and seems to be a spontaneous reaction, similar in some ways to the ghost dance and the cargo cults. All three were encouraged by charismatic leaders, but rooted in a feeling of hopelessness and a grassroots demand for profound change triggered by troubled times.

The Chinese Cultural Revolution is now recognized as a disaster by the Chinese as well as the rest of the world. Today in the Middle East, unfortunately, some forces have begun to attack the rich cultural legacy of the region by destroying archaeological ruins, monuments, and the artistic achievements of the past. Although these events are unique and distinctive in some ways, they also seem to be emotional responses

triggered by the heat of the moment, not careful thought. Like the Chinese Cultural Revolution, they are tragic examples of the wanton destruction of an irreplaceable heritage.

These examples demonstrate that a strong potential exists for people to make poor decisions when they are faced with hurtful disruptions in their way of life. The theory of anomie can be used to model these changes. With this in mind, the ghost dance, the cargo cult, and the Cultural Revolution are compared in Table 2

TABLE 2
PATTERNS OF DYSFUNCTIONAL RESPONSE

ISSUE	GHOST DANCE	CARGO CULT	CULTURAL REVOLUTION
Trigger	Cultural Stress. Economic reversals.	Cultural Stress. Economic reversals.	Cultural stress. Economic Reversals.
Response	A belief in a magical return of ancestors, the old ways, and personal invincibility.	A misguided copying of the techniques used by outsiders who threatened the traditional way of life.	Widespread disrespect and rejection of cultural traditions long held by the Chinese people and their culture.
Impact	Suicidal behavior. Reliance upon magic.	Counterproductive economic strategies.	Cultural destruction on a massive scale.
DISCUSSION			
The ghost dance, the cargo cult, and the Cultural Revolution represent hurtful and unproductive responses to change, stress, and anxiety. Members of ethnic groups need to be aware of such potential reactions in order to envision more production strategies.			

The ghost dance, the cargo cult, and Chinese Cultural Revolution point to damaging and ineffective means of addressing social and economic change. They demonstrate that when people are not prepared for the conditions they face, dysfunction is likely to occur. The opposite, however, is also true: some cultures and the people within them respond to the pressures faced in positive and constructive ways while simultaneously maintaining their unique cultural character and distinctiveness. The examples of the Iroquois Indians of New York State (USA)/Ontario (Canada) and the Yup'ik of Alaska (USA) are examples.

POSITIVE ADAPTATIONS

The Iroquois of New York State (USA) and the Province of Ontario (Canada) are impressive in many ways. In the 18th century they successfully manipulated the colonial forces of Britain and France, reaping significant benefits in the process. During the French and Indian War (1754-1763), known as the Seven Years War in Europe, the Iroquois strategically controlled the situation and enjoyed prosperity as a result. Once the French had been totally defeated and driven from North America, however, the Iroquois were “no longer able to play off the British and French against each other and [found themselves] surrounded by a circle of British forts” (Wallace 1978 442). Because an alliance with the Iroquois was no longer needed, British generosity dwindled and economic suffering crept in.

When the Revolutionary War between Britain and their North American colonists began, the Iroquois became embroiled, once again, in a conflict that was larger than their world. Realizing that the British valued the region merely for trading purposes while victorious colonialists would probably be tempted to migrate into Iroquois territory, most Iroquois sided with Britain. The decision was costly:

[During the war, the Iroquois homeland] was devastated by the John Sullivan [United States military commander] expedition in 1778, which in a three pronged offensive managed to burn the houses and the crops in almost every major Iroquois town. Many of the women and children, and the surviving warriors, took refuge at Fort Niagara with the British, who housed them in a refugee camp, inadequately clothed,

inadequately fed, inadequately sheltered, and swept by disease. By the end of the war, despite their military successes, the Iroquois population had been cut approximately in half (Wallace 1978 443.)

After the war, the victorious United States, remembering that the Iroquois had been their enemy, showed them few favors. And, as the Iroquois had feared, White settlers were attracted to the area. By the turn of the 19th century, the Iroquois were beaten in war, decimated by diseases brought by the Whites, and besieged by new economic rivals. The results of this unenviable situation included infighting, personal resignation, despair, and retreat. As is often the case under such circumstances, dysfunctional behavior (including alcoholism) became rampant.

Anthropologist, Anthony Wallace, an Iroquois specialist, points to the widespread dysfunction that arose including violence, uncontrolled weeping and pining, fear of peers (as evidenced by accusations of witchcraft), social disunity, and, widespread alcoholism. Clinical depression was commonplace and Wallace observes that when people were sober, they were likely to be suicidal (1970 196-201). With the culture and its people in total disarray, the Iroquois, as a viable culture, was headed towards extinction.

Within this milieu of cultural decline, Handsome Lake, a once respected indigenous leader, had fallen into hopeless alcoholism and his productive life appeared to be over. By the spring of 1799 he was “bedridden, reputedly...as a consequence of prolonged [alcoholism] (Wallace 1978 445).

In June of that year “Handsome Lake collapsed [and] appeared to have died, but actually he was in a trance state and was experiencing the first of a series of visions in which messengers of the Creator instructed him in his own and his people’s religious obligations” (Wallace 1978 445). After recuperating, Handsome Lake dedicated his life to sobriety and to the restoration of Iroquois culture and society.

On the one hand, Handsome Lake encouraged his people to embrace their cultural traditions in innovative ways. The late 18th and early 19th century had devastated the Iroquois, throwing their culture into a state of complete disarray. Economically, the Iroquois could not effectively compete with the new settlers who entered the regions. Although embracing and championing Iroquois culture, Handsome Lake also recognized that Iroquois society needed to adjust to the emerging economic realities in order to be revitalized.

Iroquois men, for example, focused upon hunting and warfare, viewing farming as an unmanly and shameful profession that was left to women. When white settlers migrated into Iroquois territory, however, new methods of farming (that included men performing their share of the work) proved to be more efficient and productive. The success of these outsiders further undercut the Iroquois economy. Under these circumstances, Handsome Lake encouraged Iroquois men to take up farming and he urged them to perceive agriculture as a legitimate profession, not a source of shame or embarrassment. This change of attitude helped the Iroquois to rebound economically.

The response suggested by Handsome Lake is clearly an example of what Robert Merton describes as an innovative response to anomie in which the goals of society remain intact although people are provided with new methods for achieving them. While Merton often associated innovation with harmful and hurtful substitutes such as illegal activities, in this case innovation took the form of a productive and legitimate rethinking of traditional sex roles. It allowed the Iroquois to adjust to emerging social and economic circumstances.

Handsome Lake, furthermore, forcefully denounced the disruptive and dysfunctional responses exhibited by his people. Drinking alcoholic beverages, in particular, was banned, along with promiscuous sexual behavior, the practice of witchcraft, and other troublesome habits that were undercutting the society and its

people. Handsome Lake went on to insist that people acknowledge their past errors and refrain from similar misdeeds in the future.

From the perspective of anomie, Handsome Lake seems to have intuitively understood that many people had fallen into responses that resemble retreatism; they had abandoned the old ways but had not replaced them with any positive alternative. He demanded that people find a meaningful focus and began to combat social and individual degeneration.

Largely through Handsome Lake's example and message, the Iroquois people reversed their downward spiral of decline and re-emerged as a vital and viable culture. They continue as a powerful force today. This example emphasizes that ethnic groups can adapt to changing circumstances by tempering their traditions in productive and strategic ways. Cultures are powerful forces and as Appel indicated above, they often provide invaluable tools for both physical survival and psychological health. In addition, they are flexible and capable of innovation and change.

Approximately 175 years after Handsome Lake's achievements, Alaska Native Harold Napoleon provided another example of cultural renewal. Napoleon's *Yuuyaraq: The Way of Being Human* (1996) examines his indigenous people (the Yup'ik of southwestern Alaska USA) focusing upon the trauma and stress caused by contact with the outside world during the 20th century. Napoleon chronicles the plight of a downtrodden and bewildered people who fell into disarray and dysfunction but ultimately rebounded with healing and renewal.

Instead of being a scholar or professional researcher, Napoleon is an insightful layman who recovered from a personal bout with alcoholism. Writing on a subjective and intuitive level, Napoleon discusses the traumatic events that undercut Yup'ik society (as well as the positive steps that can be taken to insure its renewal.) Revealingly, these observations and recommendations independently duplicate the example and suggestions of Handsome Lake.

While not excusing or discounting his lapses and personal responsibilities, Napoleon focuses upon the destructive power of uncontrolled social and economic change and the alienation and disruption they produce. He argues that social and individual dysfunction can best be overcome through cultural revitalization.

Napoleon points to the irony that profound decline among the Yup'ik was correlated with economic progress and physical wellbeing. The people had warm clothes, comfortable homes, and enough to eat. Famines were a thing of the past. Viewed from a material perspective, life was good. Nonetheless, the suffering was profound, alcoholism was rampant, and the suicide rate rose to epidemic proportions.

Napoleon explains these responses as the fruit of cultural destruction. He records that in the early 20th century disease had killed many of the elders who carried the traditions of Yup'ik culture. As a result, the survivors were denied their heritage and floundered emotionally as a result. Economically, moreover, the traditional subsistence lifestyle was rendered passé. This situation, of course is largely similar to what Handsome Lake's Iroquois faced in the late 18th and early 19th centuries. The response, furthermore, was almost identical: dysfunctional behavior, mass suicide, despair, and passive resignation.

The solutions suggestions by the Iroquois and the Yup'ik, furthermore, are almost identical even though there is no evidence that Napoleon was aware of his predecessors. In both cases, cultural renewal and an embrace of the local heritage and traditions was urged. The rationale underlying these tactics is the belief that by nurturing and rebuilding the culture and its traditions the people can heal from a painful past and a new and positive chapter in Yup'ik culture can begin.

Napoleon uses the theory of Post-Traumatic Stress Disorder as a metaphor to portray the painful process of stress, alienation, and dysfunction that long plagued his culture and people. Post-Traumatic Stress Disorder, of course, is a condition in which people develop dysfunctional patterns of response as a result of being exposed to danger, fear, stress, and so forth. Speaking with reference to this disorder, Napoleon argues that rapidly changing social and economic conditions caused unmitigated stress that, in turn, triggered dysfunctional responses and behaviors that almost destroyed the Yup'ik. This ongoing process proved to be a vicious circle because as the culture became weaker, it became less able to help people cope, leading to even more profound problems.

Discussed in terms of anomie, a pattern of retreatism emerged in which people abandoned their old ways, but did not replace them with new and powerful alternatives.

A key strength in Napoleon's account is that he is not a professional social scientist or psychologist. Indeed, his status as insightful layman who is member of his community gives his work added credibility. This analysis has special value because it independently verifies and reinforces the findings of researches such as Merton and Appell while simultaneously paralleling the example of Handsome Lake. They are compared in Table 3

TABLE 3
POSITIVE ADAPTATION

EXAMPLE	HURTFUL PRESSURES	POSITIVE RESPONSES
Handsome Lake	Due to changing political and economic conditions, the Iroquois suffered. The resulting sorrow triggered disabling dysfunctional behavior.	Handsome Lake called for the people to preserve their heritage while adapting to changing social and economic conditions. The decline of the Iroquois was overcome.
Harold Napoleon	Due to new conditions caused by disease and the intervention of outsiders, the Yup'ik faced a crisis emerged leading to counterproductive responses and personal dysfunction,	Harold Napoleon notes that the people suffered because they lost touch with their heritage and traditions. He suggested reconnecting with their cultural heritage in order to more effectively cope.
DISCUSSION Although some responses to anomie (such as the ghost dance, cargo cults, and the cultural revolution are hurtful and counterproductive, alternatives exist. The examples offered by Handsome Lake and Harold Napoleon demonstrate this potential.		

Those who deal with Middle Eastern ethnic groups can benefit by keeping these positive examples of beneficial responses to change in mind. Social, change, economic development and business intervention trigger change. On many occasions hurtful reactions are the result. Positive alternatives, however, are possible. Efforts must be made to insure that transitions are positive, sensitive, as well as culturally and psychologically beneficial.

The fact that pain and alienation may exist, of course, does not mean that outsiders should force people to preserve and live according to their traditions. Self-determinism at a local level should prevail. People, however, need to understand the full implications of their actions.

In this regard, Ormund Loomis has observed: "Proposing...efforts to stem...inevitable change would be pointless. Further, in a free society, even expecting [organizations or] the government to slow...[inevitable] progress would be wrong...It is possible, however, to temper change so that it proceeds in accordance with the will of the people, and not in response to the pressures or faddish trends of insensitive public or private projects" (1983 29.)

Ethnic groups in the Middle East and throughout the world need to remember that the cultural heritage and traditions of a people can be a source of great strength and comfort. And they should not forget that transformations and regulations mandated by outsiders can undercut a culture in hurtful ways leading to stress, psychological discomfort, and dysfunction (Salzman 2001, Walle 2004.) Care needs to be taken to minimize this kind of negative and hurtful response. The examples of the Iroquois and the Yup'ik, however, prove that positive and constructive responses are possible.

Many methods for strengthening the cultures of ethnic minorities can be proposed. One example is the concept of what has been called the “concurrent majority” a political construct that was developed in the United States during the first half of the 19th century to protect the rights of minorities that are threatened by the will of the majority. This strategy was a reaction to what has been called the “tyranny of the majority”.

THE TYRRANY OF THE MAJORITY

Empowering minorities (such as ethnic groups) to live as they see fit is profoundly important. The discussions of the Iroquois and the Yup'ik that were presented above dramatize this reality.

As also discussed, significant obstacles often prevent people from following their preferred ways of life. Denying people the right to self-determinism is often labeled the “tyranny of the majority”. The term “majority” can be used to refer to being outvoted by a numerical superiority (such as in an election). It can also refer to domination that results when others control a “majority” of some kind of power, such as economic or political clout, that is used as leverage. An example of raw power being more influential than a demographic majority is the complaint that often been made that in Iraq a Sunni minority was long able to force its will upon a Shiite majority. (This paper has no opinion regarding this debate and simply mentions it as a well-known point of contention).

The phrase “tyranny of the majority” goes back to the 18th century and was used by American political theorist John Adams in 1788. In the early 19th century, it was employed by Alexis de Tocqueville in his *Democracy in America* (1835). De Tocqueville, of course, was a liberal who favored democracy but was leery that unbridled majority rule could turn ugly, as it did during the French Revolution. The phrase and the concept it represents gained additional international attention in John Stuart Mill's, *On Liberty* (1859). When significant social or economic initiatives are taking place, local peoples and communities often fear that the resulting changes will be detrimental. A key question that can arise asks “To what degree does a raw majority have the right to control and veto the way of life and the economic activities of distinctive and established minorities?” Phrased in another manner, “Should minorities be able to practice self-determinism even when doing so violates principles that are held by the majority?” Many advocates for liberty and equity believe the answer to this question should be “Yes”.

These are complex issues. For justifiable and laudable reasons, the raw majority (and the countries in which they reside) want to establish uniform standards that provide guidance in their territory (or even globally, as argued by proponents of universal human rights). Majority rule can help create these sought after standards. On the other hand, if the dictates of the majority are strictly followed, the legitimate choices of minorities might be curtailed.

In the United States of America, this dichotomy has led to controversy and inconsistency. On some occasions, the United States demands that its indigenous people honor the demands of the majority. Thus, indigenous tribal courts are allowed to operate, but only if defendants are guaranteed all the rights granted by the United States (such as the ability to personally confront accusers and/or those who are witnesses against them). Thus, the rights of indigenous minorities, although acknowledged, are tempered by policies that are established by the majority even though they might conflict with local traditions.

In other circumstances, the will of minorities prevails over the preferences of the majority. Indigenous people of the United States, for example, are allowed to operate casinos and games of chance in states where the majority of the population has outlawed gambling. In such cases, the democratically established decrees of the majority are overruled by the will of the minority. (The complex rationales for these conflicting policies are not discussed here because they are distinctly American. The point brought made is that ad hoc variation and inconsistency exist.)

The Kurdish people of the Middle East present another example of majority vs. minority rights in conflict. The region of Kurdistan is a vast area in which the Kurds are in the majority. This region, however, is parceled out to a number of nations including Turkey, Syria, Iraq, and Iran. In each of these sovereign countries, the Kurds are a minority. Many Kurds complain that their inherent rights and needs are denied because of their minority status. In some countries, attempts are made to provide the Kurdish people with a degree of autonomy and home rule that takes their distinctiveness into account while simultaneously integrating these regions and their people into the countries where they reside. Even when such concessions are present, many Kurds believe that the only legitimate solution is for the various parts of Kurdistan to be united to form a new country. This paper has no suggestions regarding how to resolve the problems and does not take sides. The compelling arguments of both sides are recognized.

By looking at these representative examples from North America and the Middle East, the potential problems and inequities associated with relying upon simple majority rule are showcased. These tensions need to be resolved.

A SAMPLE METHOD OF RESPONSE: THE CONCURRENT MAJORITY

Ethnic groups have an unexpected friend in 19th century American political theorist John C. Calhoun. Many will find this alliance to be ironic because Calhoun was a stalwart defender of a social and cultural elite that exploited racial and/or ethnic minorities (such as the 19th slave population of the United States).

In this regard, liberal American historian Richard Hofstadter (1948) observes “Not in the slightest was [Calhoun] concerned with minority rights as they are chiefly of interest to the modern liberal mind – the rights of dissenters to express unorthodox opinions, of the individual conscience against the State, least of all of ethnic minorities”. This point is well taken, Calhoun was an apologist who supported slavery and the privileged classes that benefited from it.

In spite of championing an elite gentry that gained fortunes using slave labor, Calhoun grappled with how to protect the rights of minorities even when outvoted. Although most progressive people today have little sympathy for the “minorities” that Calhoun defended, his logic and thinking, nevertheless, provide generic tactics that can be used to shield any group against the tyranny of the majority. The particular theory that Calhoun developed in this regard is usually called the “Concurrent Majority”. It asserts that factions have a right to protect their interests, even if outnumbered.

Calhoun’s thinking arose in the early 19th century when strong tensions existed in the United States between the industrialized North and the agrarian South. The existence of slavery was a key issue, but not the only one (as demonstrated by arguments over tariffs which seemingly benefited the North at the expense of the South). Calhoun’s fear that the minority might be downtrodden by the majority was not unreasonable, and he had repeatedly seen the federal government unlawfully do so.

On March 3 1832, for example, the United States Supreme Court decided “Worcester vs. Georgia” a case that affirmed that the states (which reflect the will of the local majority) had no authority to meddle into the

affairs of the American Indians (a minority) that resided in its territory. The case was brought to the Supreme Court by an individual who had been detained for breaking a Georgia law that interfered with the rights of indigenous people to have unregulated contact with whites.

The United States Supreme Court declared that these laws enacted by Georgia were null and void. Andrew Jackson, president of the United States at the time, however, disagreed and took no action. He is reputed to have said “[Chief] Justice Marshal has made his decision, now let’s see him enforce it.” Since the court had no control over the military, Georgia was not forced to comply. In other words, the administration of the United States (voted into office by a white majority) denied a minority, composed of indigenous people, their legitimate rights in conscious disregard for the law.

Later in the same year, Calhoun and his state of South Carolina rebelled against President Jackson in what is called the Nullification Crisis. “Nullification” is the long standing principle that if a federal law is illegal, the states may ignore it. At the end of the 18th century, the nullification argument had been employed by Thomas Jefferson and James Madison in their opposition of the Alien and Sedition Acts (as articulated in Thomas Jefferson’s Kentucky Resolution and James Madison’s Virginia Resolution.) As a result of such precedence, South Carolina was in familiar territory when it sought relief by cancelling what it felt were illegitimate federal laws. On November 24, 1832, South Carolina passed a law nullifying the tariff within its territory and threatened to secede from the United States. President Jackson stood firm, declared that such action was treason, and threatened military intervention. Eventually a compromise was reached and the immediate crisis subsided. The underlying belief in nullification, however, remained among the Southern states, emerged as its rallying cry, and prepared the nation for Civil War.

The American Indian Removal Act of 1830 and the forced migrations of Eastern Indians to Oklahoma that it mandated is an even more blatant example of minority rights being denied by the federal government. Jackson’s brutal “ethnic cleansing”, known as the Trail of Tears, is one of the greatest injustices in American history. These actions were an illegal, shameful, and a flagrant denial of the legitimate rights of a minority. Without doubt, Calhoun was well aware of these examples of the tyranny of the majority.

This was the situation when Calhoun sought strategies for protecting the rights of minorities who were threatened by majority rule. In general, the term “concurrent majority” refers to methods which help an outvoted minority (however defined) to block the initiatives and desires of a majority. As might be expected, such remedies are popular among subgroups that feel that, otherwise, they might not be treated with parity and equity.

MODERN APPLICATIONS IN THE HINTERLAND

As indicated above, in Calhoun’s era the agrarian cotton planters of the Southeastern United States were outnumbered by the more populated Northern industrialists. In such an environment, Calhoun feared that the Northern majority would unjustly shift laws and economic policies (such as tariffs) to their advantage at the expense of the South. To avoid this possibility, Calhoun insisted that minorities must possess an ability to maintain their way of life, even when the majority is hostile to it. This basic reasoning continues to be a strong justification for the rights of minorities, such as ethnic groups. On many occasions, for example, indigenous peoples, such as the Maya of Belize, assert their traditional rights in ways that overtly contradict the will of the majority. They justify doing so by arguing that protecting these rights is a key to their survival as a people. They have found support and success when doing so.

Consider the example of the Crimean Tatars (Shevel 2014, Kinstler 2014, Balson 2015), an Islamic people, primarily Sunni, who are of Turkish descent. These Tatars have been the local people of the Crimea (an area bridging the Middle East and Central Asia) for hundreds of years. They have a better claim at indigenous status in the area than anyone else.

In the late 18th century, Russia defeated the Turkish Empire and took over the Crimea. This political shakeup was followed by a mass migration of ethnic Russians into Crimea, making the Tatars a minority in their own land. During World War 2, the Tatars were accused of collaborating with the Germans against Russia and a mass exile resulted. Today, the remnants of this indigenous group constitute only about 15% of the total population.

When the Crimea was a part of the Ukraine, the Tatars were granted a significant degree of autonomy. Currently, Russia, once again controls, Crimea and what the future holds for these people is uncertain. Nonetheless, a Tatar leader Refut Chubarov has called for an autonomous Tatar region to be established.

Although minorities such as the Maya and the Tatars are very different from the plantation owners who Calhoun defended, the situation they face is largely the same. They all oppose an eroding of the freedom to practice and enjoy their way of life. Calhoun developed the theory of the concurrent majority as a defense against the tyranny of the majority, and his logic is as strong today as when it was written in the early 19th century. Calhoun's writing, furthermore, is consistent with well-respected political theorists, including liberals such as John Stuart Mill who wrote the celebrated *On Liberty* (1859).

When decisions are made purely with reference to majority rule, subgroups can emerge as losers in an inequitable power-grab that favors the numerical majority at the expense of minorities. Calhoun sought to control the tyranny of the majority using methods that protect minority rights. In this regard, Calhoun rhetorically asks, "How can those who are invested with the powers of government be prevented from employing them [from] aggrandizing themselves instead of using them to protect and preserve society" (1851 271-272). Because of this potential misuse of power, Calhoun argued that minorities must possess the ability to prevent their rights from being annulled and their legitimate wishes and priorities from being ignored.

Providing these protections can be justified by complaining that without them the will of the majority can be forced upon minorities in hurtful, burdensome, and unfair ways. This potential is especially strong and oppressive if the minority is significantly distinct from the dominant majority (as is the case with many ethnic groups).

Perhaps in a small and homogeneous community, simple majority rule might function effectively and equitably. As the population rises and divisions and differences between segments of the population expand, however, this ability is reduced. Recognizing this reality, Calhoun observes "the more extensive and populous the country, the more diversified the condition and pursuits of its population; and the richer, more luxurious, and dissimilar the people, the more difficult it is to equalize the action of the government" (1851 273).

Under these conditions, Calhoun concludes that it becomes "more easy for one portion of the community to pervert its powers to oppress and plunder the other" (1851 273). This, of course, is exactly the complaint that is made by many ethnic groups whose lands are dominated by forces that attempt to transform or eliminate minorities in ways that accommodate the powerful or the majority.

Calhoun's basic point is that the mere will of a majority does not give it the right to destroy the way of life of a minority. Ethnic groups can use Calhoun's theory of the concurrent majority to affirm and justify rights that pure majority rule can easily undermine. Calhoun, furthermore, recognizes that the greater the difference between people, the more likely that majority actions might prove inequitable to minorities. Under these circumstances, methods for transcending raw "majority rule" are likely to be needed.

DISCUSSION

This paper is not presumptuous enough to assume that an example from the 19th century United States can be generalized for application elsewhere, such as in the Middle East and adjacent regions. The use of this specific example merely illustrates that minorities, including ethnic groups, need to embrace their distinctiveness, on the one hand, while recognizing the inevitable reality of change and its challenges, on the other.

As David Maybury-Lewis (1977) indicates, cultures are not necessarily destroyed by contact with the outside world and the pressures of change. If given a chance, most societies and their heritage have a profound ability to adapt. Variation and diversity, furthermore, can be strong and invaluable assets. This is true in the Middle East and elsewhere.

Change and the rivalries between peoples, however, often take a toll. This can be especially true if rapid and unmitigated transformations are forced by outside pressures. Under many circumstances, people find themselves unable to achieve socially acceptable goals in socially acceptable ways. This situation can lead to anomie coupled with the estrangement and bewilderment it often causes.

All too often, the responses to anomie are hurtful and dysfunctional. This is what we saw in the examples of the ghost dance, the cargo cults, and the Cultural Revolution. Positive examples, however, such as those associated with Handsome Lake and Harold Napoleon can also be found. These positive examples demonstrate how cultures can adapt and prosper while maintaining their distinctiveness and essence. These examples prove that cultural preservation can be combined with an appropriate adaptation to new circumstances.

The vast majority of the world's countries believe that people, as individuals, should have rights to what most generally can be viewed as self-determinism and an appropriate degree of freedom (as defined by the specific nations). Many of these jurisdictions, however, possess few mechanisms to protect distinctive groups of people (such as cultures and ethnic minorities). As argued above, however, cultures and traditions often need to remain strong and vital in order to nurture those who are members of these groups.

A threat that often needs to be overcome when people face new realities is the "tyranny of the majority" in which powerful outside forces mandate that people adjust in ways that reflect the will of the majority or the powerful. Under such conditions, self-determinism and the process of equitable and orderly cultural transformation can be undercut.

Minorities (measured either demographically or with reference to power structures) need methods to resist these tendencies. Especially when smaller or weaker ethnic enclaves are distinctive and/or their situations are different from those who dominate, full human rights and self-determinism might not be available to these peoples. Under these conditions, small and distinctive enclaves often require proactive and additional

protections. The method of the concurrent majority is one illustrative example of how these goals can be accomplished.

These are issues that impact the Middle East. The region (and the adjacent areas of North Africa and Central Asia) are the home to a wide array of distinctive peoples. Many small minorities are vastly outnumbered. And yet, their human and cultural rights need to be protected. By resolving these tensions and dilemmas, cultural diversity can emerge as a powerful and treasured asset, not as a source of division and strife. When that day comes, the Middle East and its people will be poised to prosper and live in peace.

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Tackling the Root Causes of Challenges in Africa for a Sustainable Development: An Empirical Review

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ABSTRACT

Africa is a continent that is changing rapidly. Since 2000, Africa's economies have been growing of five per cent at an average annual rate. The African's population is expected to grow by fifty per cent over the next twenty years, to 1.56 billion. The working-age population is expected to reach 1.4 billion by 2050. Despite Africa's relatively strong economic development performance over the previous years, different nations in the continent are facing several development challenges ranging from food insecurity, high unemployment rate, poverty and social inequality. There is also the problem of, increased market volatility, slow growth of economies, and lack of economic transformation, environmental degradation, and low incorporation of the Africa continent in inclusive economy. To overcome these challenges, Africa countries have to work together towards an inclusive economic and social development and environmental sustainability by building sustained strong policies, strategies and institutions. A sustainable development is development which meets the needs of the present without compromising the capacity of coming generations to increase their own needs. This paper aims to tackle the root causes of these challenges for a sustainable future development; it intends to review the existing challenges facing the African continent, proposes solutions and gives recommendations.

Keywords: managing the future, sustainable development, inclusive development, economic growth

INTRODUCTION

In 21st century, the problem of food insecurity, unemployment, income and gender disparities, education, resource conservation and environmental protection have arisen as main world concerns. Different conferences and plans had been made to find solution of these problems. The strategies and principles of sustainable development have been formulated and widely accepted by decision-makers and peoples all over the world. Then, different countries have been seeking sustainable tracks that will permit them to instantaneously address both socioeconomic and environmental concerns. The objectives of this paper are to ascertain the problems that affect the Africa's economic growth by identifying the key challenges posed to a sustainable development; and to develop scenarios and recommendations for tackling identified challenges. This study is an empirical review. In this study we analyzed the following questions: "What is sustainable?" "When is development sustainable?" and "How to realize the sustainable development?"

AN OVERVIEW ON WORLD ECONOMIC DEVELOPMENT

The world economic growth reduced to 3.3% in 2013 from 3.4% in 2012. For 2014, the global GDP growth is revised down to 3.3% from 3.7% as it has been projected by IMF in July 2014. However, facilitated by gradually improving economic fundamentals in developed countries, it is projected to slightly improve to 3.8% through 2015. In developed economies, real GDP growth is gaining momentum and reached 1.8% in 2014 from 1.4% in 2013 and it is projected to reach 2.3% in 2015. By end 2015, US economy is foreseen to increase by 3.1% as evidenced by increasing business investment and consumers' confidence (IMF, World Economic Outlook, 2014). In the Euro area, the economy growth is projected to 1.3% by end 2015 helped by structural reforms and fiscal consolidation, accommodative monetary policy and improving financing conditions. However, In Japan, from 1.5% in 2013, the economic growth was projected to be

0.9% by end 2014 against the previous forecast of 1.6% as result of a sharp decline in domestic demand after the sales tax hike from 5% to 8% in April 2014 and to further decline to 0.8% in 2015 as fiscal stimulus is planned to decrease.

In Asia continent, growth remained resilient and expected to grow at 6.5% in 2014 after 6.6% in 2013 mainly driven by China and India although some control in the Chinese economy. Indeed, due to the weak performance in real estate, heavy industry sector, in external demand and following tighter credit conditions, Chinese growth was projected to increase at a slowing pace in 2014 and 2015 growing by 7.4% and 7.1% respectively against 7.7% in 2013.

In Sub-Saharan African countries, economic activity increased and raised by 5.1 percent in 2013 from 4.4% in 2012 backed by improved economic policies and strong investment. It is projected to grow by 5.1% and 5.8% in 2014 and 2015 respectively supported by investments in infrastructure, expansion in the mining industry and robust consumption (BNR, 2014).

According to UNIDO (2013) & UNCTAD (2015), Africa has been taking off and growing strongly and progressively for nearly two decades and showing a remarkable resilience in the face of the global economic crisis. In 2009, when the global economy contracted by 0.6 per cent, sub-Saharan African economies continued to expand, with a growth 2.6 per cent on average, recovering to an estimated 5 per cent in 2010. More than 2/3 of the African countries have enjoyed 10 or more years of continuous growth (Africa Development Bank, 2007 & World Bank, 2014).

In spite of this progress, the continent faces daunting challenges such as poverty, high population growth, and reliance on subsistence agriculture, lack of nutrition and inadequate education, income and gender disparities, inequalities in distribution of resources and in political power (UNIDO, 2013). Progress toward a sustainable and meaningful economic development in Africa remains inconsistent and uncertain (Accounting for Sustainability (A4S) CFO Leadership Network (2014).

SUSTAINABLE DEVELOPMENT CONCEPT

The World Commission on Environment and Development (1987), defined the concept of sustainable development as a development which meets the needs of the present without compromising the ability of future generations to meet their own needs. From this definition other studies (Holmberg, 1992; Reed, 1997; Harris et al., 2001), stated that a sustainable development has three essential aspects: firstly, the economic aspect in which an economically sustainable system must be able to produce goods and services on a ongoing root, to sustain appropriate levels of management and outside obligation, and to avoid extreme sectorial imbalances which damage agricultural or industrial production. Secondly, maintaining the environmental aspect which includes maintenance of atmospheric stability, biodiversity and other ecosystem utilities. Finally, Social aspect in which a socially sustainable system must achieve fairness in distribution and opportunity, delivering appropriate social services as well as education and health, gender equity, and political accountability and participation (Harris et al., 2001). The study is linked to theory of sustainable development which states that a sustainable development is an applicable approach to promote economic development, appropriate use of resources and protection of environment (Sathaye et al., 2007). The theories of sustainability try to place and incorporate collective responses to environmental and cultural challenges. Economical the theory intends to sustain financial and natural capital; ecologically this theory attempts to integrate biological diversity and ecological integrity aspects; on political aspect, it looks to social systems that realize human dignity. According to standard economic theory, effective resource distribution should have the effect of maximizing utility from consumption. The objective of a sustainable development is to create and maintain a thriving economic, ecological and social systems. To persevere in

this changing environment, we must strive for resilient socio-environmental systems to achieve a sustainable development.

THE ECONOMIC DEVELOPMENT CHALLENGES IN AFRICA

Many, if not all, of the most critical challenges to humans such as climate change, food insecurity, increased population pressures, migration, undeveloped financial markets, political risks, health pandemics and international insecurity today have particular significance to the African continent (Accounting for Sustainability (A4S) CFO Leadership Network (2014). Different studies show that various global challenges in a rapidly changing world challenge Africa (Maseli, 2013; Ndulu, 2007; Bellamy, 2009). No part of the world undergoes more from international warming; no population is more at risk from rising food and energy prices; and Africans are severely affected by the inequities of the current international trading system, political and social conflicts, and missgovernance (Birkinshaw, 2012; Bellamy, 2009).

Maseli (2013) and Ndulu (2007) categorized these challenges that African continent is facing in two groups: near-term challenges and long-term challenges. The near-term challenges comprise increased market volatility, slow growth of economies and low prices for some merchandise. The long-term challenge includes environmental challenges, demographic and technological challenges. However, Accounting for Sustainability (A4S) CFO Leadership Network, (2014) reported that the main challenge for Africa's economic development is the uncertainty that surrounds global management. The factors that contribute to this uncertainty include: political instability; different conflicts; climate change; long term time horizons; unknown scale and timing of impacts; population growth and the associated increase in demand for food, water and energy; lack of clarity regarding future management policies and regulatory frameworks; and shifting customer preferences across market segments (Japan International Cooperation Agency, 2013). To limit and reduce this uncertainty, Africa leaders should choose accurate forecasting method that helps to develop strategies to promote profitable trends and to avoid unprofitable ones (World Bank, 2010). The selection of appropriate forecasting technique will depend on the level of economic aggregation involved in each country (National economy, GDP, sectors of economy, interest rates, inflation etc.).

According to World Economic Forum (2013) and Maseli, (2013), inequality (such as inequality in asset, income, gender, health, social welfare and education, disparities in distribution of resources, inequalities in political power) is another challenge that affects the economic growth of Africa in all sectors. Inequalities in Africa still remain high (Gini index 43.9). The Africa continent is experiencing increasing inequality, causing stress in the social aspect and increased discount. Africa is the second-most inequitable region in the world (African Development Bank, 2014). In 2010, six out of the 10 most unequal countries worldwide were in sub-Saharan Africa and more specifically in Southern Africa (Adejumobi, 2015; Harsch, 2006). Such inequalities meant that when economic downturn or disaster struck, those at the bottom of the income scale, the most vulnerable, were hurt disproportionately (Kayizzi-Mugerwa, 2001). And when national incomes rose, those at the top benefited the most, while the poor saw few gains, if any. Partly as a result, the numbers of people in sub-Saharan Africa are living in absolute poverty (with incomes of less than \$1 per day) (Harsch, 2006). Moreover, when there is intergroup inequality with religious, ethnic, racial and language divides the prospect of tension rises (Kwesi, 2007). Corruption lies behind much of the income inequality that affects the Africa continent (Moyo, Nandwa, Oduor& Simpasa, 2014). Without clearly defined measures to reduce income inequalities, Maseli (2013) said that the African continent may be directed for the worst levels of poverty set to hit even harder at the already poor. The same author notated that inequality is not only an economic challenge; it is also a social and political liability to any society. Africa's growth has not been as powerful in reducing poverty as it could have been because of the high levels of inequality.

Growth with equity is possible, but it requires a decline in inequality in both outcomes and opportunities (Anyanwu, (2011). Addressing the problems of inequality requires introducing policies that specifically target the gaps and ensure that the poorest segments of the population are able to overcome their disadvantages. Failure to address inequalities means that “communities, countries and regions remain vulnerable to social, political and economic upheaval (World Bank and the International Monetary Fund, 2007).”

Furthermore, Kwesi (2007) affirmed that climate change is among new challenges that are emerging in the world especially in Africa where two-thirds of Africa is already a desert or dry land, with limited scope for agricultural production. The challenges to growth from climate change include reduced food security where more than 95 percent of Africa’s agriculture is rain fed, making it more vulnerable to climate variability than irrigated farming. The second challenge from climate change is an increased water stress where 3/4 of African countries are in arid and semi-arid zones characterized by small reductions in rainfall. By 2020, between 75 and 250 million people in Africa could be exposed to higher water stress due to climate change (Africa Development Bank, 2007). High population growth increases high rates of water use and this result in water scarcity. The third challenge of climate change is growing competition for natural resources. Lastly, the climate change causes higher risk of diseases like rift valley fever, cholera, malaria, etc (Africa Bank of Development, 2007).

These challenges increased the number of people living in extreme poverty. Consequently, Africa countries experienced a significant deceleration in economic growth. According to Maseli (2013), the rate of poverty remains relatively high in Africa; 48.5% of people living in poverty (413 million). African countries rank low in human development index (education, health etc.) (UNIDO, 2014). This has been confirmed Olaide and Orefi(2015) that about 300 million people living on less than a dollar per day, Africa continent is characterized by lowest per capital income countries in the World (UNEP FI, 2009). Joblessness among the youth is highly growing.

The lack of financial services to support economic activities of the poor people is one of the major factors promoting poverty in the region (IFC, 2013). Consequently, in many African countries, there exists limited capacity of people to adopt intensive technologies, restricted productivity, inhibited incomes and low domestic savings, social and political conflicts (Vincent, 2005). This situation has also led to the inability of entrepreneurs in the continent to engage in innovative business ventures with the consequence that entrepreneurial activities are neither financially nor environmentally sustainable. Illegitimate outflows of capital from Africa seriously inhibit the efforts for poverty reduction (Abdel, 2009). It impedes both public and private investment and hence job creation, infrastructure and industrial development. These outflows also reduce tax revenues that could be used for education and health; they drain hard currency reserves, thus encouraging poor countries to borrow money from abroad and worsening their debt burdens (Agaloglou, 2014).

For managing the future, Africa needs to have an effective leadership that accurately perceive, analyze, decode and diagnoses the situation, matching characteristics of the current situation to those of experienced in the past, in the process scanning and forecasting for relevant course of action. At the same time, there is growing recognition that a more strategic approach to addressing these challenges successfully can help unlock economic growth opportunities and add a competitive advantage. Africa leaders will face several challenges from both the future workforce and from the changing nature of work itself. As a result, they will need to get ahead of the game by understanding these major future demographic, technological and societal shifts, and then preparing themselves accordingly.

BUILDING AN INCLUSIVE AND SOLID FOUNDATION FOR SUSTAINABLE ECONOMIC DEVELOPMENT

Factors contributing to building an inclusive and sustainable economic development are: education for all and universal access to health services, access to financial services, investments and infrastructure development, new technology and affordable bank loans, gender equality and more equal resources and income distribution, strong government policies and political stability, climate change management, peace and conflicts resolution (Africa Development Indicators 2008, 2009). Internal and external factors have contributed to Africa's relatively growth over the past decade. Improved macroeconomic management strategies, high domestic demand and a relatively more stable political environment are some of the internal factors that supported growth in the continent. External factors include favorable commodity prices, resilient economic cooperation with emerging economies, more official development assistance and an increase in foreign direct investment flows contributed to the growth process. Rising agricultural production and public investment in infrastructure, and growth in African retail, telecommunications, transportation and financial services powered a forecast rise in regional gross domestic product (GDP) from 4.6 per cent per annum in 2014 to 5.2 per cent in 2015 (UNCTAD, 2015 & World Bank, 2014). According to Norton and Rogerson (2012), a stable and predictable operating environment is a solid foundation for all economic growth and investments. Investments in infrastructure are a primordial factor for building a durable economic growth and accessibility and affordability of services. A sustained economic growth is impossible without industrialization because there is an empirical correlation between levels of manufacturing and economic development. Manufacturing is a source of important spillover effects in the economy, including backward or forward side linkages, economics of scale, better jobs, etc. To achieve growth, leaders should focus on people-centred development by promoting human capital development and sustainability, innovation, science and technology; establishing a structural economic transformation and inclusive growth.

To build a sustainable future Africa, we should build on three principal policies: build infrastructure, build institutions and build people (UNCTAD 2013). Firstly, by building infrastructure, the effort should be given on energy, roads and technology networks. These elements are the foundations of any strong and durable society. African countries should increase investment in the energy sector, emphasizing on the projects that support cross-country trade in electricity, road and railroad networks. These investments are critical for growth to be sustained and expanded. High quality infrastructure can be a foundation for foreign investment. It can accelerate diversification and employment creation, and support further regional integration. According to UNCTAD (2014, 2015), Investment in infrastructure is a major determinant of long-term growth in Africa. The concept on the growth and development of capital accumulation is regarded as a key determinant of an economy's growth (Penalosa and Turnovsky, 2011). Empirical studies based on data from Africa countries confirmed the strategic role of investment in the process of development and economic growth. A typical example is the study by Mijiyawa (2013) using cross-country data. It has found that investment, credit to the private sector, government effectiveness, exports and the shares of agricultural added value in GDP are significant growth determinants. This has been confirmed by the research done by Ghazanchyan and Stotsky (2013) that investment boosts growth. Fedderke and Bogetic (2006) also find strong empirical evidence that investment in infrastructure is not only positively associated with economic growth, but that it actually leads growth. In addition, both the cross-country and country-level evidence indicates that investment is critical for accelerating growth in African economies."

Secondly, by building institutions, we mean institutions as the systems that ensure that the building functions properly and lasts a long time through increasing good governance, transparency, and sound economic frameworks. Strengthening the institutional and governance frameworks that manage African

resources is a good place to start. Transparency can help increase accountability and help ensure that these resources are harnessed for the benefit of all. We cannot forget the role of leadership in building a strong economic growth. The leaders play an effective role in radical changes and transformations of a sustainable economic growth. Leaders make cultures and their fundamental role is affecting others. Transformational leader provides a foundation for long-term organizational changes that improve organizational performance over time (Rogers, 2008).

According to Bass & Avolio (1994), the inspirational leader articulates shared goals and mutual understanding of what is right and what is important. Transformational leaders are inwardly and outwardly concerned about the good that can be achieved for a nation, group, organization, or society for which they feel responsible (Krishnan, 2005). They are intellectually stimulating leaders engage to think about problems in new ways, questioning their beliefs, assumptions, and values as well as developing the capacity to solve future problems in creative and innovative ways. This makes the followers develop the capacity to solve future problems unforeseen by the leader and learn to be creative and innovative (Howell & Costly, 2006). Leaders develop intellectually stimulating concepts to the extent that they can discern, comprehend, conceptualize, and articulate to their followers the opportunities and threats facing their organization as well as its strengths, weaknesses, and comparative advantages. The ranking is then examined, and new, creative methods of accomplishing the organization's mission are explored. They provide a foundation for long-term organizational changes that improve organizational performance over time. Regarding the necessity of making fundamental changes in Africa and the respective roles of organizational leadership and management and their interrelationships in such future perspective, Africa continent needs leaders to enable it to make a dramatic shift by motivating and inspiring their countries by establishing a clear vision of the future state and defining the new steps required to achieve it (Yukl, 2006).

Africa's future growth will result from leadership actions to end political conflicts and improve macroeconomic and political stability, creating a better business environment which enabling growth and improve microeconomics reforms. Africa governments should help companies to achieve economies of scale, increase investment and become more competitive.

Thirdly, by building people, we need to include and involve all people (children, youth, workers, and women). Africa's greatest potential is its people. Investing in people has a great rate of return economically and socially for a resilient future. They are the key for the region to fully capture the dividends from population growth. By some estimates, a one percentage point increase in the working age population can boost GDP growth by 0.5 percentage points. For this to happen, however, "good" jobs need to be created in the private sector. The research shows that today, only one in five people in Africa finds work in the formal sector. This a big challenge to build a strong economic growth (Prabhu, and Kersi, 2003). To building an inclusive and solid foundation for sustainable economic growth, we must increase the number of people who has access to quality education, healthcare and infrastructure services. This can be done through technology development to extend that millions of people reach and access to financial services. Here, Kenya's experience offers valuable lessons to the rest of the world on how to empower the poor through financial access (McAuliffe, Catherine, Sweta, and Masafumi, 2012).

By building people, African women could afford to work. A challenge is that most of women cannot afford to work. However, when they do, they are mostly employed in informal activities. This results to low productivity, low incomes, and low prospects. Consequently, people do not have access to education, credit, and markets (Conference United Nations on trade and Development, 2007 and UNIDO, 2014). To ensure economic sustainability of the continent several policy actions should be taken, for example, institutional and skills development, the economic and financing gap should be highlighted that will be the benchmark to mobilize additional resources for sustainability(McKinsey, 2010). The economic sector wide approach

mechanism should be proposed as a means to manage the available resources and also mobilization of additional funds to achieve future growth (Norton and Rogerson, 2012). To achieve a strong and sustainable future, Africa leaders should promote new development paradigm that empowers population to play their economic, social and environmental roles to the full. Hence, a transformational management approach to Africa population, innovative and productive society is needed. The implementation of this strategy is through goals, targets, indicators and modalities that give explicit attention to Africa women and men and their role in building a better future (Cilliers et al., 2011). In addition, African leaders should focus on emerging priorities by mobilizing savings and investment; increasing access to finance and financial inclusion especially in rural area; skill and leadership development in all sectors. In order to address the current challenges and achieve outcomes in the future, it requires that all sector stakeholders own the process especially understanding their key roles and responsibilities for their relevant concert policy actions that shall be pursued (Kumar, Sunder, and Leone (2014). Still, cross-cutting sectors consultations will be vital to draw out synergies and avoid duplication of activities. These sectors are private sector development, agriculture sector, macro and economic and financial sector. Furthermore, reporting government targets will be inclusive of all concerned stakeholders. To build a long term economic growth, Africa needs sustained and shared growth, driven by the private sector, with a more equal distribution of opportunities and it needs to be more integrated. Without integration, the continent will remain disjointed, with many small, shallow markets that are uncompetitive on their own and unattractive to investors (Africa Bank of development, 2007).

TOWARD A SUSTAINABLE AFRICAN DEVELOPMENT

The Africa continent acknowledged an economic growth in the last past decade. From 1980-1989, the average annual growth rate of real output in Africa increased from 1.8 per cent to 2.6 per cent in 1990–2000. From 2000–2010, it increased by 5.3 per cent (UNCTAD (2012a, b, c &d). In addition, twelve countries had an average growth rate above the developing country average of 6.1 per cent over the period 2000–2010, and two countries (Angola and Equatorial Guinea) had double digit growth rates (UNCTAD, 2009,2012,2013). Africa’s macroeconomic indicators are progressive. The GDP of real growth was estimated to go above 6% in 2008, up from 4–5% in 2005–06, and more than twice the 2–3% of the late 1990s (African Development Bank, 2007). The continent experienced a significant decrease in growth due to the global financial and economic crisis of 2008-2009 (Osakwe, 2010). However, the average growth rate of Africa in the post crisis period (2008–2012) was about 2 percentage points higher than that of the world economy (World Bank, 2014).

For instance, Africa continent has come far and the journey continues; each African country has taken its destiny into its own hands, now is the time to build the future not as individual but as unified continent (Lagarde, 2014). Hence, there is still much to be done in the future; the continent is very diverse, and some countries risk being left behind, especially those faced with recurring conflict (Japan International Cooperation Agency, 2013). In others, the rapid growth is yet to be widely shared across the population, with many Africans failing to see the fruits of economic success (Lagarde, 2014). Recognizing the nexus between managing the future, economic growth, sustainability and poverty reduction in Africa, the Africa leaders need to build a more inclusive society where every African will have equal access to economic and developmental opportunities (Moeletsi, 2010). Hence, we are living in challenging times for the global economy (Lagarde, 2011). For a sustainable and resilient future economic growth, the continent needs a better management strategy of its low natural resources and population by creating new opportunities and establishing measures and policies that impact a rapid future growth (Maseli, 2013). The future management offers a straightforward and pragmatic mechanism and approach to strategic planning (Joel et

al 2013). It will help Africa safeguard economic growth that support sustainability and resilience of different economic sectors, to promote policy and investment options. It takes an honest look at the limitations of forecasting, and shows (through real-life examples and a wealth of experience) how managers can best use a variety of forecasting methods, including scenarios, horizon scanning and trend monitoring (Birkinshaw,2012). This approach will bridge the gap between traditional practices of African leaders and intensified fundamental principles that seek higher profits, and at the same create opportunities to integrate measures and policies to manage future crises.

According to the report by UNIDO (2014), African people want to live in a continent where extreme poverty has disappeared, everyone is well fed, all children have access to quality education, economies are dynamic and the benefits from growth are equitably shared, jobs are available to everyone, natural resources are used equitably and sustainably, and temperature increases from climate change are manageable. The challenge is to ensure that this vision is recognized by Africa leaders and reflected in the future Africa development agenda (McKinsey, 2010; Rogers, 2008). In additional, to sustain economic growth and make sure that it builds opportunities for all, African leaders should continue to rebuild shock absorbers and implement micro and macro management strategies that will boost economic growth (African Development Bank, 2014).

CONCLUSION

Common challenges take different forms in different regions of the world. At the same time, they show that complexity and interconnectedness will be a crucial attribute of crises in the foreseeable future. According to African Development Bank (2014), the majority of African countries experienced an economic decrease due to inflation, weak performance of investment inflows, labor market unrest, unfavorable international prices of major exports and scaling back of manufacturing activities, weak demand, weak recovery of global economy, liquidity constraints and domestic constraints to production, particularly energy. Growth was also negatively affected by subdued private consumption, which was a result of the negative effects of labour market unrests and weak growth in real disposable income (Davoodi, 2012). The complexity and intertwined nature of the challenges require collective solutions from the Africa Union. The governments will need to confront the realities that demographic, climate and economic change will impose on them in future. Growing and continued inequalities can pose a threat to a high, efficient and sustained growth. Thus, Africa continent should adopt inclusive economic growth as future managing strategy, which is a long term strategic framework, a strategy about economic growth with equality of opportunities. High, efficient, and sustained growth; social inclusion are future needed to ensure equal access to opportunities; and social safety nets to protect the most vulnerable and deprived people. While addressing the current economic challenges, there is an urgent need to look into the future. The pace of international change is accelerating, but the development of institutional capacities in the African Union and African sub-regional organizations to respond to new challenges remains challenging and slow (Bellamy, 2009).

There are no challenges facing African countries that cannot be resolved by leaders who concentrate on the task of resolving them, by single-minded allegiance to their countries and people and the task of successful governance. African leaders must change their structure of priorities. From leaders who are lording it over their people to servant leaders who are serving the causes of their people. From leaders who abuse the public trust and “willy-nilly” steal from their people to leaders who understand the sacred trust invested in them to do right by the people who called them to serve ” (Akhile, 2014). Governance in Africa must be improved for the continent’s countries and people to build real freedom and real development. Without good governance, Africa cannot eradicate these economic challenges (Nyerere, 1998). In addition, Ibrahim and Soiri (2014) affirmed that to steady economic growth, reducing poverty and diminishing violent

conflicts, the only way this can be sustained is through better future leadership and management of Africa economies, social life of people, legal structure and institutions.

RECOMMENDATIONS

The Africa leaders should coordinate multiple efforts in identifying the root causes and challenges, and in designing credible response mechanisms to prevent, manage, and resolve them by a closer and sustained analysis. Moreover, to respond effectively to root causes and challenges inhibiting Africa's growth, Africa's leaders should identify the risks and adapt current risks identified to consider the particular characteristics of risks derived from economic sustainability and consideration should be given to managing uncertainty around how economic development will manifest into multiple future scenarios. They should look beyond short time horizons to longer term impacts and understand risks and emerging issues across the entire Africa. Adapt traditional risk management processes, rather than seeking to develop new, or parallel approaches. Bridge the knowledge gap by providing the management with insight into key risks associated with macro sustainability developments. Adopt a longer term focus and plan for multiple possible outcomes and scenarios to accommodate the uncertainty associated with these impacts. A transformational leadership is needed in Africa to bring into existence an invention of value that can be sustained into the future.

Africa leaders should be responsible for managing the affairs of their people and countries not always waiting external solution. They should defend their nations from external threats, provide stable employment for their people and usher in prosperity. Africa leaders should help lessen inequalities and realize the progressively redistributive dimensions of development by ensuring that all sectors of the population are socially and politically integrated, that roads and other infrastructure are extended to geographically remote areas and that economic policies emphasize activities that stimulate the creation of jobs.

Africa's long-term growth will be supported by internal and external social and demographic trends; particularly Africa's growing labour force, urbanization, income equality, access to international capital and economic partnership with global investors.

Africa union leadership should adopt an integrated future management approach when making stewardship and development decisions affecting the Africa continent. Develop different industrialization paths where each country should select its policies and forecasting strategies based on their specific socio-economic circumstances, resources base and institutional capabilities. Replicate best practices from abroad only if it best matches with country capabilities. Establish future priorities and focus on all essential sectors, including infrastructure, services, trade, science and technology, logistics, etc. Create a platform for people to plan for their future more effectively. When forecasts are explicit and transparent, they help leaders think about trade-offs among choices in the face of uncertainty.

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FDI and Energy Subsidy

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ABSTRACT

The rise of globalization has situated foreign direct investment (FDI) as a vehicle of growth and technology transfer. Developing countries such as China, India and Malaysia has attracted more FDI in comparison to other countries. Respectively, economic literature investigating the determinants of FDI is exploded, in an attempt to analyze successful models and provide a development path for the rest. However, the effect of energy subsidy on FDI has nearly been ignored; although, one of the rationale of subsidizing energy is encouraging investment and increasing production. This paper, through a single equation econometric model, aims at examining whether energy subsidy is one of the determinants of FDI in Egypt or not.

Keywords: Business Incentive, Eclectic Paradigm Theory, Egyptian Economy, Energy Subsidy, Foreign Direct Investment

INTRODUCTION

Foreign Direct Investment (FDI) is considered an imperative economic policy in the development of the emerging economies; not only because it works on filling the gap between domestic available savings and required investment level, but also it is the least vulnerable in comparison to other financial capital flows. Besides, FDI is considered a vehicle for transforming production's technology and managerial practices. Vast literature; such as Atique, Ahmad, Azhar, & Khan (2004). Basu, Chakraborty and Reagle (2003), Bosworth, Chang & Xu (2008), Collins & Reinhart (1999), Hoang, Wiboonchutikula, & Tubtimtong (2010), Rizvi & Nishat (2009), Zhao (1998). and others ,has investigated the positive effect of FDI on economic growth, human capital, trade level, technology spill over, local competitiveness and development in general. A number of researchers have concentrated on the situation in developing countries; such as AbuAl-Foul & Soliman (2008), Blomstrom, Lipsey & Zejan (1994), Borensztein, De Gregorio and Lee (1998), Edwards (1990) and Smarzynska (2005).

Different theoretical as well as empirical literature has been developed to assess the determinants of FDI. The first serious discussions and analyses of determinants of FDI is the transaction approach introduced by Oliver Williamson. Williamson (1981) depends on transaction cost to explain the organizational behaviour. He displays that governance policies that accommodate less transaction cost will attract higher investment level.

Respectively, vast research has been developed including more variables. One of the most influential theoretical literatures is the Eclectic Paradigm Theory introduced by John Dunning in 1977. It provides three main factors to pursue international activities; which are ownership (O) advantages, location (L) advantages, and internalization (I) advantages (Rogmans, 2011). The first sub paradigm of the eclectic paradigm theory – which is also known as OLI model- is Ownership-specific advantages are tangible and intangible assets that investing enterprises possessed exclusively and from which they generate rent. It is those competitive advantages gained by the enterprises itself (Dunnig, 2000). While, Location-specific factors refer to potentials and endowments that host country captures. Finally, internalization advantages represented in cross board returns such facilities of buying and selling in the open market and integration with intermediate product market (Dunnig, 2000).

Systematic globalization waves have massively increased the flow of FDI to developing countries. FDI effect is complex in developing countries, however, many government policies work on creating incentives within the location frame to attract higher level of FDI. This has raised research interest to investigate the

determinants of FDI in an attempt to provide explanation that would assess better the public policy. Nevertheless, one dominant public policy in developing countries is subsidizing energy. De Moor (2001), Töpfer (2003) and Steiner (2008) explains that energy subsidy is a tool to boost industrial development; since, it is a method of providing cheap energy and respectively lower cost for all other industries. So far no research is done to investigate whether such policy has been a determinant for FDI. Such investigation is of great importance now specially under the global trend of decreasing energy subsidy. Thus, this paper attempts to examine the role of energy subsidy in attracting FDI in Egypt.

Collectively studies such: Aizenman (2003), Beheshtitabar & Irgaliyev (2008), Blomström & Kokko (2003), Çeviş and Çamurdan (2007), Chan & Gemayel (2003), Goldar & Ishigami. (1999), Massoud (2003), Moreira (2008), Nasir & Hassan (2009), Omanwa (2013), Rogmans & Ebbbers (2013), Shamsuddin (1994), Thomas (2007) and Van Wyk & Lal (2010)- have identified three main areas as location determinants that decide the size of FDI directed to host country. The three main areas are: macro-economic variables, institutional variables and business incentive variables. This study will employ these three areas and it will incorporate energy subsidy as a government fiscal policy incentive for FDI in a multiple regression model to estimate the relationship between foreign direct investment and energy subsidy. The result would be of great importance for understanding the effect of current energy reform on FDI and respectively guiding public policy for better decisions. The paper will start with an overview of FDI and Energy Subsidy in Egypt, then followed by explain the model and employing the regression analysis to explain the relation between FDI and energy subsidy in Egypt.

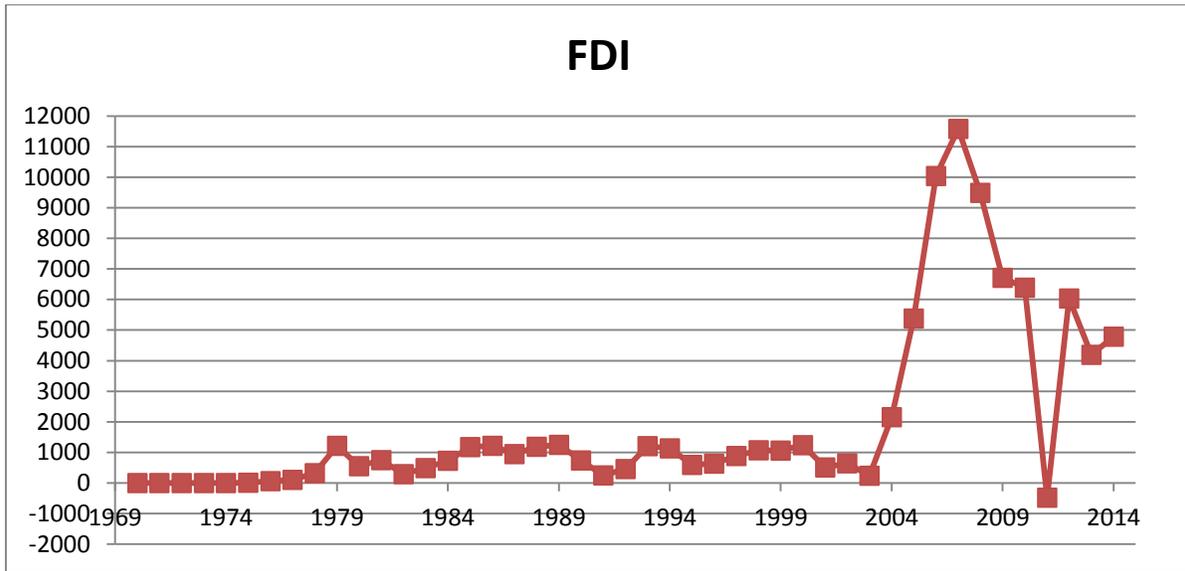
1. OVERVIEW ON FDI AND ENERGY SUBSIDY IN EGYPT

1.1 FDI

FDI is a major catalyst for growth and development, respectively, developing countries have pursued policies that guarantee attracting foreign direct investment. This section will highlight how far Egypt succeeded in attracting foreign direct investment, through presenting available statistics.

In 1974, Egypt had officially adopted an open oriented policy – known as the open-door policy (*Infitah*)- aiming at increasing foreign investment and trade through decreasing the state controlled economic policies adopted in Nasser Era (Goldschmidt,2008; Louis , El-Mahdy and Handoussa, 2004). This policy contributed in increasing FDI inward flow of FDI (see figure 1 below), nevertheless, such expansion was followed with an unstable economic growth period questioning the efficiency of this policy. Further expansion in FDI magnitude has started in 1990 after adopting the ERSAP program that target reform economic policy towards a free-market. ERSAP programs contributed in decreasing inflation as well as the government's deficit and eliminating various price distortions, which in general contributed in attracting FDI. However, Egypt's attractiveness to FDI was subject to unexpected internal shocks; such as 1997 Luxor extermination, and external shocks such as Asian financial crises. Nevertheless, new legislations were adopted expanding the role of the private sector to invest in infrastructure and telecommunication sector. This went in line with privatizing about 314 public owned enterprises. Massive expansions were achieved in year 2004 (see figure 1 below) with the appointment of new ministry of investment and adopting new policies that targeted transparency and decreasing production cost such as the One-stop shop established by General Authority of Investment and Free zones (GAFI) and free zones with 10 years exemption (Hanafy, 2015; Kamaly, 2011; Louis et al. 2004). In spite of the government effort to abolish business restriction for foreign investors- as Egypt The political and security instability followed the 25th of January revolution had interrupted such improvement and even turned FDI into negative values (see figure 1 below).

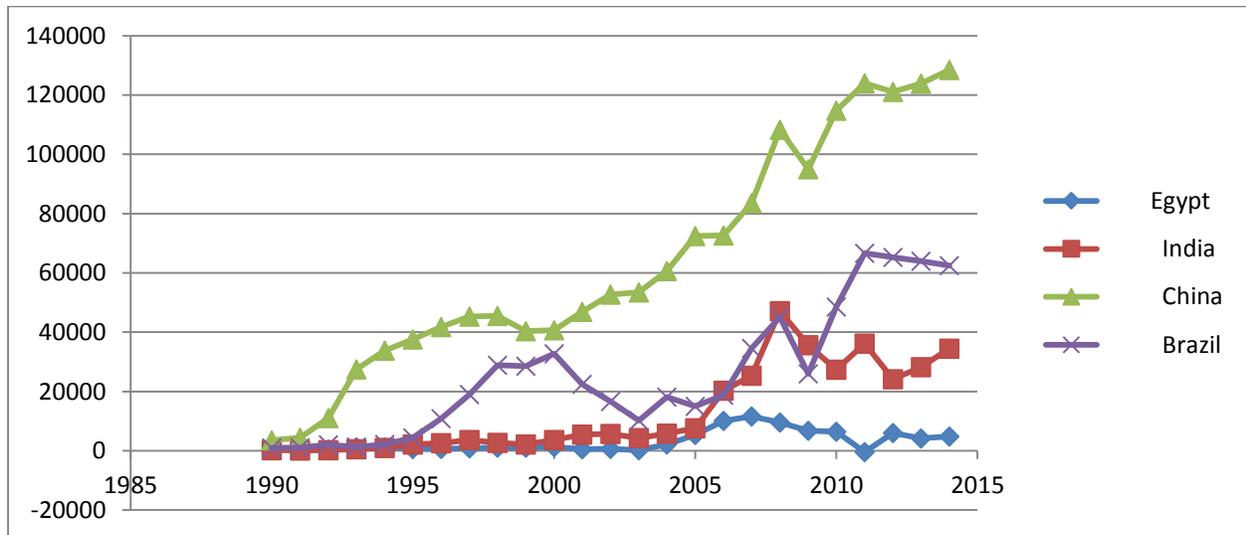
FIGURE 1
FOREIGN DIRECT INVESTMENT TREND IN EGYPT (1970-2014)



Source: Based on UNCTAD 2016

According to World Investment Report (2015), FDI inflow reached nearly 46% of fixed capital formulation; it decreased to negative values due to instable political condition but recently has recuperated to reach 12.58% in 2014. In spite of that, it is noticed that that Egypt performance in attracting FDI is quiet moderate in comparison to other countries such as China, India and Brazil. In 2007, Egypt attracted about \$ 11.6 million, which is the highest achievement; China recorded \$83.5 million as FDI while values for Brazil reached about \$34.6 million and India \$25.4 million (see figure 2 below).

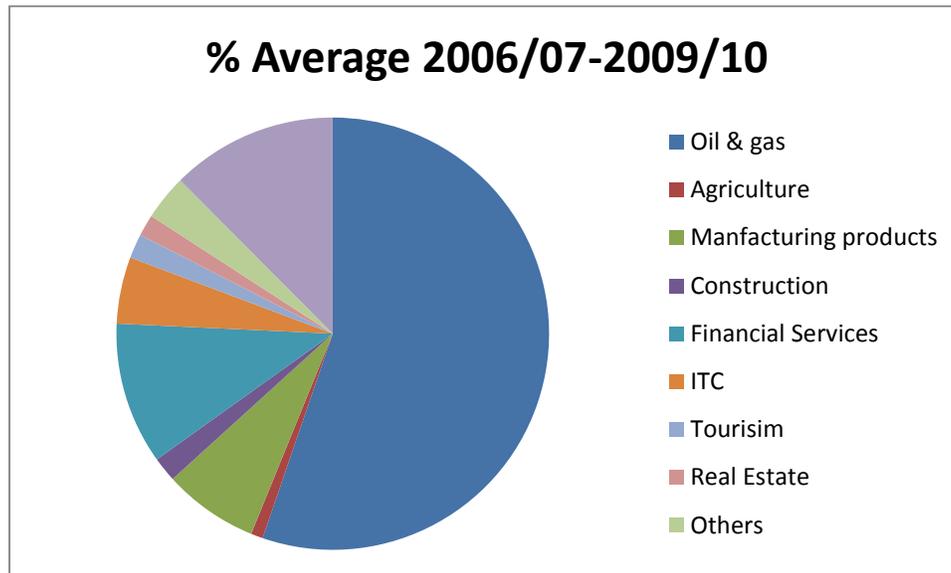
FIGURE 2
FOREIGN DIRECT INVESTMENT IN SELECTED DEVELOPING COUNTRIES (1990-2014)



Source: Based on UNCTAD 2016

Petroleum sector attracts about 55.3% of total FDI inflow to Egypt, second in line comes the service sector and in particular financial service sector attracting about 10.6% (see figure 3 below) . Most of this FDI is directed mainly to Cairo and Giza governorates (their share is equal 61.47% in 2009 according to Hanafyy, 2015)

FIGURE 3
FOREIGN DIRECT INVESTMENT IN EGYPT BY SECTOR (1990-2014)



Source: Based on Kamaly 2011

Under current globalization trend, FDI is considered an essential vehicle for economic growth due to its impact on production, technology, employment and foreign currency inflow. Respectively, government set policies to promote FDI. This paper is concerned to check whether energy subsidy in Egypt has contributed to promote FDI, thus next section will present energy subsidy situation in Egypt.

1.2 Energy Subsidy

Subsidizing Energy has always been an extensive economic practice in developing countries. It is an instrument used to fight continuous increase in oil prices, respectively control the pass through inflation effect. In one way, it makes energy more accessible to poor and in another way it decreases the cost of production. This part will provide an overview of energy trend in Egypt and magnitude.

In Egypt, massive expansion of energy subsidy started in 1974; when the government decided to subsidize all kinds of petrol products due to continuous increase in oil prices. Before that only kerosene was subsidized through ration cards, as it was the main source for house lighting. Petrol subsidy has represented both a direct subsidy to consumer, subsidizing gasoline used for cars and LPG used for cooking at home, and also an indirect subsidy as subsidizing petrol products decreased the cost of electricity (generated from petroleum sources) and cost of production for a number of products. In 1979, both direct and indirect cost of subsidizing petrol was estimated as LE1.9 billion which 30% of it is directed to generate electricity, 19.6% for subsidizing Kerosene and 9.2% for gasoline. Since then subsidizing petrol products has been expanding and reached LE4.7 billion in 1986 (Harik, 1992, p.488).

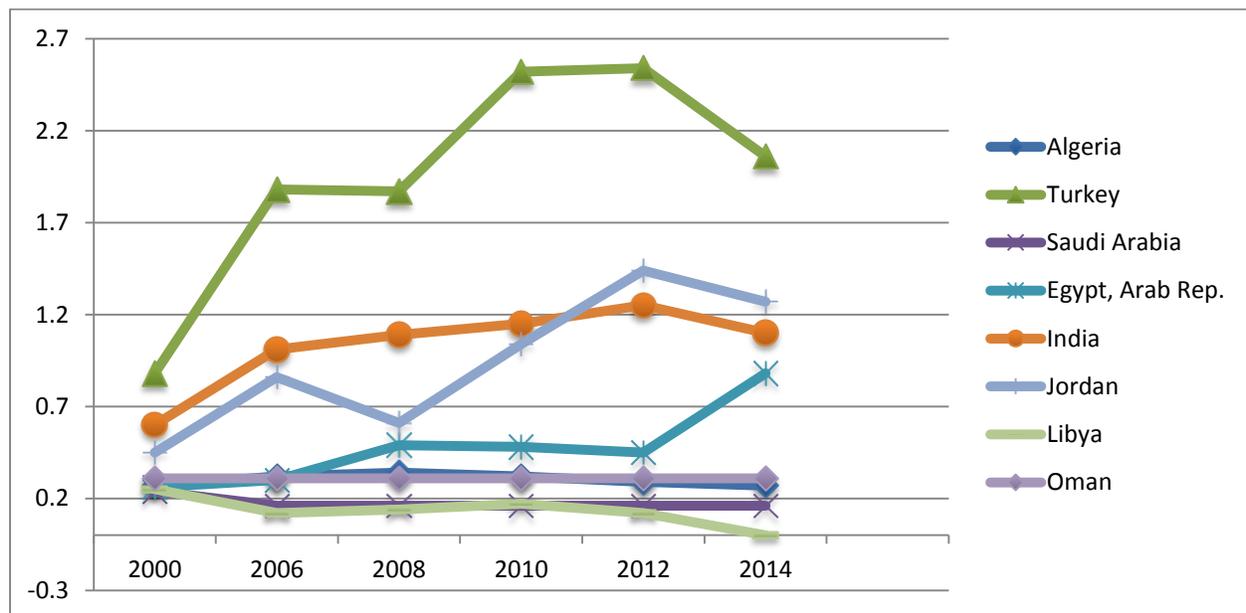
Since 1986, government has started applying a gradual increase in price petrol products specially products that are mainly consumed by non-poor such as gasoline. The price increased in 1986 from 20 piasters per liter to 25 piasters and kept increasing annually ranging between 5 to 10 piaster and this was nearly the

same increase for all subsidized petrol products (Harik, 1992, p.490). In general, subsidy cost decreased from 7.6% of GDP in 1970 to 4.7% in 1990 (El-Khafif, 1996, p.56). In spite of these increases; petrol prices in the 1990s was 1LE and represented about 25% of its international price (Carr, 1990).

In 2000s, the government introduced better quality of gasoline (92 and 95) besides gasoline 90 and increased the prices of the three types twice in July 2006 and May2008 (Kojima, 2009); while price of gasoline 80 kept low, as it has been used by middle and low-income groups. The same was done for other subsidized products such LPG cylinder price increased gradually. According to Kojima (2009, p. 81) out of 49 countries, Egypt was ranked 4th in terms of lowest gasoline price as well as diesel price, and ranked 3rd for lowest gasoline price.

Overviewing prices, It can be concluded from figure 4 below (based on world bank data), till 2006 gasoline price in Egypt has been nearly equal (or even less) than OPEC countries in the region such as Algeria, Libya and Oman. It is always less than the average in high income OECD countries and Latin American developing Countries. While, its trend moves nearly with the average of Arab world countries. Massive changes were carried in 2014 in comparison to 2012 as the pump price of gasoline increased from \$0.45 to \$0.88. This period associated with massive increase in dollar value against Egyptian currency value as well as decrease in energy subsidy bill. Similar results can be concluded about the pump price of diesel. However, changes in the price of diesel are more stagnant in comparison to changes in the price of gasoline.

FIGURE 4
PUMP GASOLINE PRICE FOR EGYPT IN COMPARISON TO OTHER COUNTRIES



Source: Based on The World Bank, World Development Indicators (2016)

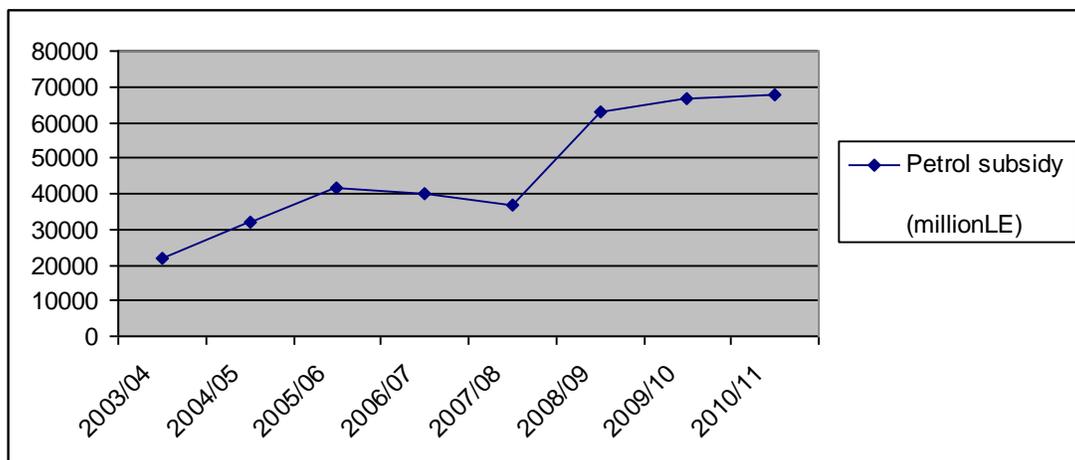
Petrol subsidy was first represented in the MOF budget statement in 2003/04 as part of subsidy expenses in order to give more emphasis on the problem of subsidy and track changes in petrol subsidy cost. Before that, petrol subsidy cost was part of the Egyptian General Petroleum Cooperation (EGPC) statements, and only net revenue was presented in budget statements. Before 2003/2004, oil and gas subsidies were set according to cost of imported products, refining, transportation and taxes (Aboueleinen, El-Laithy, and Kheir El-Din, 2009). According to state budget statement 2013/2014 (p. 60) Subsidy cost represents “the amount afforded by the state as a result of selling these materials by prices less than its cost of supplying in

the domestic market whether through local production or importing some from abroad”. Fuel subsidies at the time of budget preparation are calculated as the difference between the actual cost and the selling price. The actual cost entails product of projected quantities of fuel sold and projected fuel costs (both EGPC-reported), whereas the fuel sales revenues entails product of projected quantities of fuel sold (EGPC-reported) and unit sales prices (government-set). The initial calculations are prepared by EGPC and then reviewed by a “Subsidy Committee”, which includes members from the Ministry of Finance, Ministry of Petroleum, the Tax Authority, the National Investment Bank, and EGPC. After the fiscal year is over, the actual subsidies are established on the basis of actual data (reported by EGPC). Fuel subsidies are to be disbursed from the government budget to fuel suppliers (EGPC). In reality, fuel subsidies (budget payables) are offset against budget receivables from fuel suppliers, typically resulting in net payables to the fuel suppliers (EGPC). However it appears that these net payables are not actually disbursed, but carried over as government debt to fuel suppliers (EGPC). This situation has led to an increase of other state-owned enterprises -Ministry of Power and ministry of finance- liabilities to EGPC, with the inability of the government to disburse them. Consequently, petroleum sector factor of production affected negatively (Ministry of Petroleum, 2016).

Values of petrol subsidy (c.f: figure 5) is recorded as LE21.7 billion in 2003/04 and was more than tripled in 2010/11 reaching LE67.7 billion with a nearly 20.7% annual increase. It is recorded as 100 billion in budget financial statement for the fiscal year 2013/2014. The petrol subsidy bill decreased in the 1st half for 2015/2016 Budget statement by nearly 42.2% in comparison to what was expected. This returns mainly to continuous decrease in the price of petrol globally as well as latest increase in the price of fossil oil in June 2014(ECES, 2016).

Petrol subsidy covers solar, natural gas, mazot, LPG, gasoline and kerosene. In addition, fuel and LPG price in Egypt is less than developed countries such as Germany, Japan, United Kingdom, United States and others. Petrol prices in Egypt are even less than some Arab non-petrol countries such as Jordan, Syria and Tunisia (World Bank Indicator, 2016).

FIGURE 5
PETROL SUBSIDY EXPENDITURE

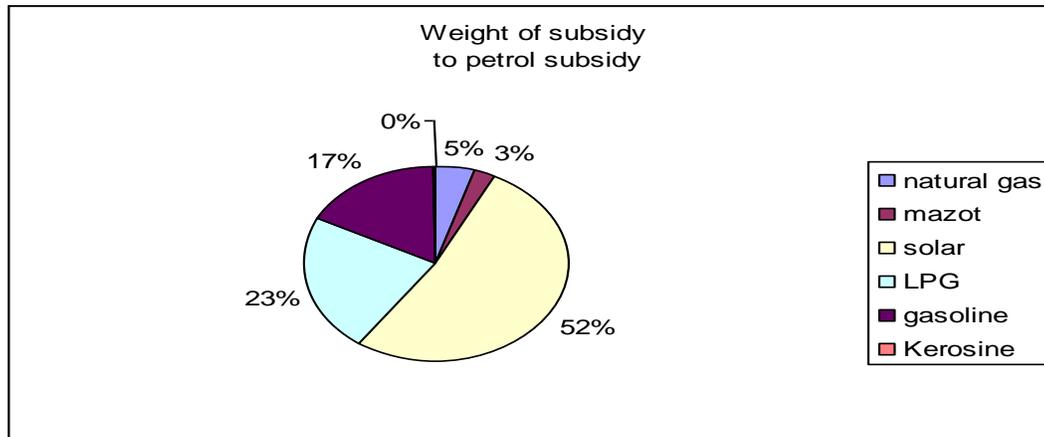


Source: Based on MOF (2010)

Although Kerosene was the first petrol product to be subsidized (in 1942), now it represents the least share in petrol subsidy cost -nearly 0.3% of total cost of petrol subsidy year 2009/2010 and even less in fiscal year 2012/2013(c.f: figure 6 & figure 7). This returns mainly to the fact that in the past, most of Egyptian

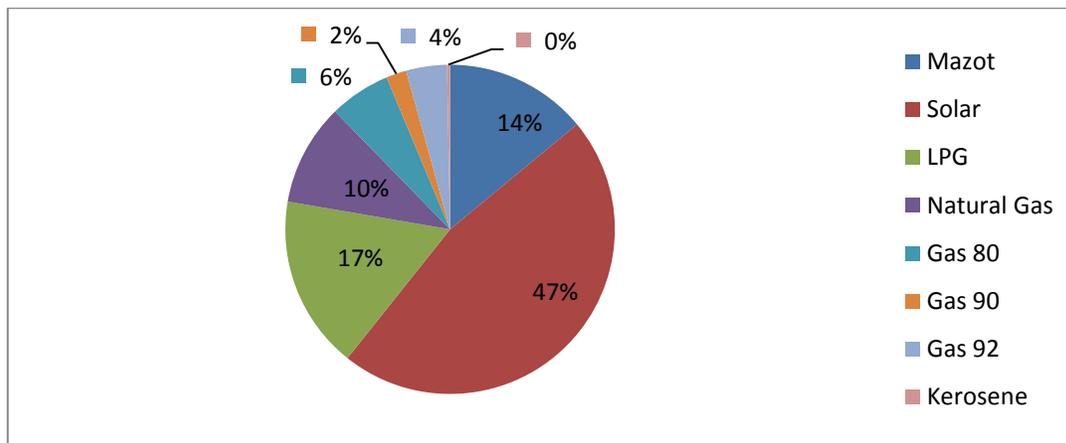
depended on kerosene for lighting while currently electricity has entered the majority of houses (99.6% of houses have electricity according to Egypt Human Development Report, 2010, p.249). The highest share goes to solar oil (diesel oil) which used principally for trains and ships, and it is mainly imported. In 2012/2013 budget statement, the subsidy on gasoline 95 is totally removed and the highest share of subsidy on gasoline goes to gas 80.

FIGURE 6
WEIGHT OF SUBSIDIZED PETROL PRODUCTS (BUDGET STATEMENT 2009/2010)



Source: Based on MOF (2010)

FIGURE 7
WEIGHT OF SUBSIDIZED PETROL PRODUCTS (BUDGET STATEMENT 2012/2013)

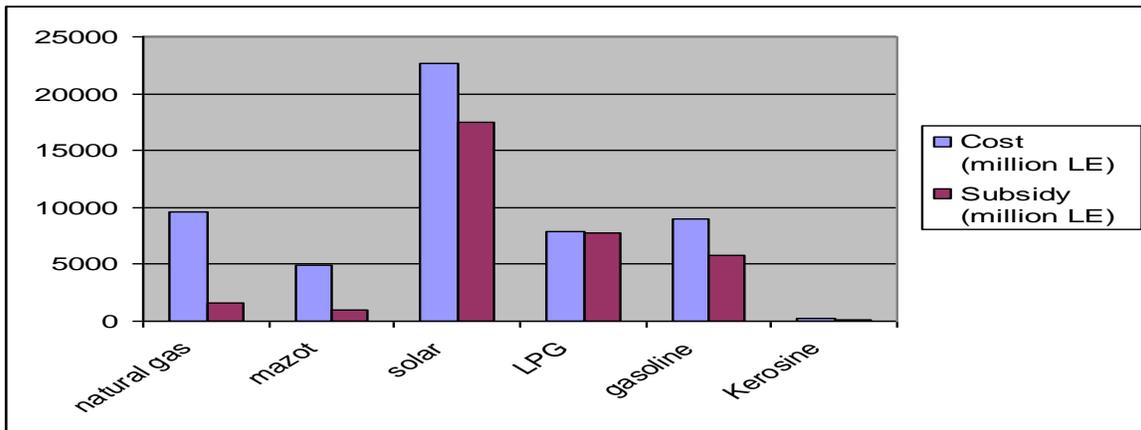


Source: Ministry of Petroleum

Considering the petrol subsidy in 2010, government subsidizes 93% of the price of LPG cylinder, 57% of solar litter, 56% of gasoline 80, 48% of natural gas, 40% of gasoline 90, 38% of gasoline 92 and 20% of gasoline 95 (c.f: figure 8; Kandil, 2010, p.3). Mazot subsidy is primarily directed for production as 83.2% of its total consumption directed to energy-intensive industries; the same is for solar as 28.1% directed to energy-intensive industries and 66.7% to transportation, which are mainly ships. While, gasoline and LPG represent the most important direct subsidy to individuals as 85.9% of consumption of gasoline are for transportation, which is mainly private cars and 41% of LPG consumption is used at home for cooking and heating purposes (Aboueleinen et al.,2009, p.15). Nevertheless, natural gas, mazot and solar are used to

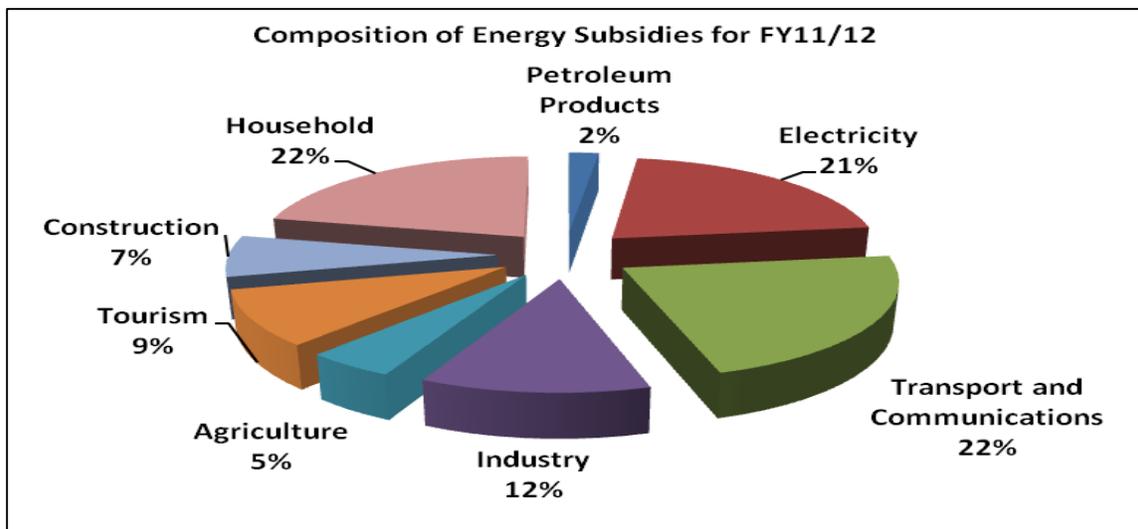
produce electricity. Based on Ministry of petroleum, the main fuel consuming sectors are electricity (41%), industry (30%), transport (11%), households (8%) and others (10%); construction, Tourism, Agriculture and Petroleum Production (c.f: figure 9).

FIGURE 8
PETROL SUBSIDY IN COMPARISON TO COST (BUDGET STATEMENT 2009/2010)



Source: Based on MOF (2010)

FIGURE 9
ENERGY SUBSIDY BY SECTOR (2011/2012)



Source: Based on Ministry of Petroleum (2016)

The government is still working on further removal of the petrol subsidy, however, any increase in petrol prices affects price of all other goods due to their importance as a power engine for most machines in any production sector, its direct effect on transportation cost and a main source of producing electricity (especially natural gas). According to Aboueleinen et al. (2009, p. 20), a total phase-out of petroleum subsidy led to a 37% increase in CPI, which indicates a decrease in consumer purchasing power by more than one third. This implies that decreasing petroleum subsidy cost should be integrated with economic development polices; in order to ensure that macro-economic performance of the economy overcomes the increase in prices.

It is advised and recommended that the government decreases petrol subsidy bill, replaces kerosene and LPG, which are imported, in households' uses with natural gas and also replaces mazot in transportation. Natural gas does not only represent the least cost on government but also country enjoys a sufficient and increasing level of reserves (Mabro, 1998). Moreover, dependence on nuclear energy to produce electricity, lower subsidy cost and is highly needed for continuous demand of electricity. According to Aboueleinen et al. (2009, p. 15), 63.7% of natural gas is used to produce electricity, while 3% of natural gas is used for housing purposes. Respectively, depending on nuclear energy increases electricity production and saves natural gas for other uses.

Investigating electricity sector, it is found that since 2007 the government tend to provide natural resource to the industrial sector at higher price in comparison to household sector. Most of electricity subsidy is given to household sector, irrigation industries and underground. Moreover, electricity tariffs differ according to the industry intensity on electricity as well as the voltage use and time of usage (peak vs off peak) (MOEE, 2016). According to Egyptian Electric Utility and Consumer Protection Regulatory Agency (EgyptERA, 2016), the price of electricity for industries range between 36.6 piaster per kwh to 60.2 piaster per watt- difference according to industry type, voltage use and peak time usage- while it would reach 86 piaster for commercial stores. This is nearly equivalent to prices in other countries, for example; in USA average price of electricity in December 2016 is 6.42 cent per kwh for industries and 11.11 cent per kwh for commercial stores (U.S. Energy Information Administration, 2016). According to Saudi Electric Company (2016), electricity prices ranges between 10- 26 halalah per Kwh for industries, while commercial stores charged within a range between 17-76 halalah per kwh. Nevertheless, electricity is subsidized indirectly through subsidizing the natural gas, solar and mazot. Since electricity utilizes about 75-80% from produced natural gas as well (Ministry of Petroleum, 2016)

In general, there is a general trend by the government to decrease energy subsidy. This raises interest to check how such action would affect energy consumption for vulnerable individuals as well as production cost. Next section will address specifically whether such activities would negatively affect the attraction of foreign direct investment.

2. EMPIRICAL MODEL

A Multiple regression model is built based on Nwankwo (2006) and extended to serve the research objective. The regression model is also nearly similar to what presented by Çeviş and Çamurdan (2007), Goldar & Ishigami. (1999), Shamsuddin (1994) and Van Wyk & Lal. (2010). The model includes the time-series parameters that are expected to be associated with FDI inflows according to the existing literature (macroeconomic, institution and business), as well as one new parameter related to FDI Business incentive that is Energy subsidy. Energy subsidy also can be used as an index for resource related economic determinants. Resource related economic determinants are used in some papers as one of the determinants of FDI such as Çeviş and Çamurdan (2007)

The research covers Egypt over the period of FY1994/1995-FY2009/2010, with the exclusion of the years beyond 2010 given its challenging political and economic situations that could affect the findings. Whereas, selecting the FY 1995 as a starting point was to guarantee the availability of data on FDI variables. Below is representation for the model in term of equation and description of variables is given in Table (1).

$$FDI = \beta_0 + \beta_1 GDP + \beta_2 EXRA + \beta_3 TRDE + \beta_4 BF + \beta_5 ES + \varepsilon$$

TABLE (1)
DESCRIPTION OF THE MODEL VARIABLES

Main Determinants of FDI	Sub-sections for the Determinates	Independent Variables Used	Expected Relation	Source of Data
Macroeconomic variables	Market size	GDP growth	Positive	Central bank of Egypt/ World Bank
	Macroeconomic instability	EXRA: Exchange Rate	The highest the fluctuation the less attractive the country	int'l Monetary Fund- International Financial statistic
Institutional variables	Economic Freedom	BF: Index of Economic Freedom	positive	Heritage Foundation
Business incentive variables	Openness	TRDE: (Exports +Imports)/GDP	positive	Central Bank of Egypt
	Energy Subsidy	ES: Energy Subsidy level	positive	Ministry of Petroleum

First, a multi-regression for all concerned variables is conducted (results are presented in table 2) using OLS method. Only two variables are significant which are economic growth and economic freedom with a very high adjusted R (93%), accepted F-stat and Durbin-Waston Stat (2.6).

TABLE (2)
REGRESSION RESULT FOR ALL CONCERNED VARIABLES

Variable	Coefficient	Std. Error	t-Stat	Prob.
Constant	-366.54	4761.011	-.076898	0.9402
GDP growth	680.0046	298.555	2.2776	.046
EXRA	-262.8818	563.701	-0.466349	0.6510
TRDE	.0105402	.063019	1.672547	0.1254
BF	-76.6277	35.0137	-2.18476	0.0538
ES	58.1557	85.2174	0.682439	0.5105

To robust the model the regression is carried again after removing the most insignificant variables Exchange rate and Energy Subsidy. This step gave better results where the three variable (GDP, trade and economic freedom) are significant at $p= 0.05$. Removing only energy subsidy only would not turn exchange rate to be significant. This returns mainly that during the period of investigation Egyptian exchange rate was nearly stable, thus there is no changes occur to explain changes in FDI.

Second, a simple regression test is conducted to check whether energy subsidy indirectly affects FDI through economic growth and trade. Regression results showed that correlation between economic growth and energy subsidy cannot be proved, while energy subsidy has a significant positive effect on trade openness measure. This is logical as petrol products represent both the highest export and import component in Egyptian trade commodities list. Respectively, the higher the price of petrol, the larger the subsidy cost as well as larger exports value and imports value.

To conclude, effect of Energy subsidy in attracting foreign direct investment cannot be proved. Energy reform for petrol subsidy has started in 2003 and electricity subsidy reform started in 2007; in spite of that FDI has been at its highest values in 2007. In general, it seems that energy subsidy has not been the policy that government used to attract foreign direct investment. It might be that attracting FDI depended more on tax reduction and investment zone advantages. In addition, decreasing energy bill would enlarge the opportunity of directing funds for providing better infrastructure respectively attracting more FDI.

It should be highlighted that attracting FDI is tied to the country's ability to produce more, expand trade through facilitating output as exports and easily importing inputs, as well as enlarging business freedom. This would raise doubts about current monetary policy used restricting transferring funds, exchanging currency and withdrawing foreign currency.

It should be noted that time period of this model is restricted to only 16 period, respectively, next step for the researcher is to rerun to the model and try to expand the “n” used. One way is to carry a cross-sectional data analysis between different industries

3. CONCLUSION

The Egyptian Economy is now suffering from massive decrease in foreign reserve resulting from decrease in FDI inflows, tourism revenues as well as exports since the 25th of January revolution. Egyptian government has to solve the current security instability in order to restore these vital economic sectors.

This paper has tried to investigate a relation that has nearly been ignored in economic literature which is the relation between FDI and energy subsidy. Energy subsidy is assumed to decrease production cost and respectively attract FDI. Nevertheless, the model presented in this paper based on macroeconomic, institution and business variables determining FDI as suggested by economic literature showed that , FDI inflows in Egypt is not affected by energy subsidy. It is mainly affected by three variables economic growth, economic freedom and openness to trade. This implies that energy reform taking place would not negatively affect FDI inflows. On the other hand, such reform would decrease public deficit and expand government investment choices. What is needed to attract investment is more production, more transparency, clear regulation, protecting property rights, effective economic trade agreements and promoting trade facilities.

The model presented in this paper will be developed by the author in future research plan to include other variables such as prices and wages. Also, the model can be investigated in a panel data frame. Energy subsidy amounts could be changed with energy prices in order to expand the period of investigation.

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Innovative Behavior of Employees: A Model of Antecedents and Consequences, a Deeper Look at Psychological and Organizational Factors

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ABSTRACT

Despite increasing importance of fostering innovation among employees, and the growing interest in Positive Organizational Behavior (POB) constructs, little empirical research has been conducted on the topic of innovation with POB. Moreover, though research proved significant relationship between positive psychological capital (PsyCap) and creative performance, no studies examined PsyCap with innovative behavior along with other antecedents. In addition, potential differential antecedents of innovative behavior have received insufficient attention. The present study integrated a number of streams of research on the antecedents of innovation and creativity to develop and test a model of innovative behavior. Regression analyses reveal that PsyCap, work characteristics, personal initiative, supportive climate, strategic attention and creative behavior predict innovative behavior which in turn affects satisfaction and engagement.

INTRODUCTION

Innovation is critical for countries to develop as it is the key to increasing market share and business profits and even to avoid bankruptcy (Baer & Frese, 2003; Dodgson, Gann, & Salter, 2005; George & Zhou, 2001; Kleysen & Street, 2001) since it is related to advances in knowledge that leads to better health, education and improvements in technology (West & Altink, 1996) and is beneficial for companies (Unsworth & Parker, 2003). Innovation involves the creation of a new product, service or process (De Brentani, 2001). Organizational conditions whether structural or social affects the innovation process (Kanter, 1988) whereby innovation, creativity and proactivity are becoming essential for organizational change (Rank, Pace, & Frese, 2004). Innovation is a result of creative ideas that are developed by individuals (Janssen, Vliert, & West, 2004) and this is why researches on innovation focused on personal and contextual factors that promote innovation (see West, 2002; West & Altink, 1996). However, innovation is a process that involves a degree of uncertainty, controversy, knowledge and teamwork (Kanter, 1988). Research on innovation is not just about technology and medicine but also psychology (West & Altink, 1996). In fact, studying innovation and what are its antecedents should not be at the technical process innovations only as some studies found no or moderate relationship between the implementation of process innovations such as Business Process Reengineering (BPR), Total Quality Management (TQM), Just-In-Time and others and performance (see Baer & Frese, 2003). One good reason might be the lack of other critical antecedents that complement the process innovations like organizational structure, culture, and climate (Douglas & Judge, 2001; Emery, Summer, & Surak, 1996; Baer & Frese, 2003). In fact, research on potential antecedents of innovative behavior has received insufficient attention (Rank et al., 2004). Several researchers have highlighted on the importance of psychological factors to the success of innovations and on business objectives arguing that such research has been neglected (Baer & Frese, 2003; Rank et al., 2004). With the exception of few studies that linked positive psychology or POB constructs to innovation or creativity (see for example Baas, De Dreu, & Nijstad, 2008 and Vinarski-Peretz, & Carmeli, 2011), the link between POB constructs like PsyCap and innovation has been neglected. Innovations whether technical like new products or services or administrative like new ways of recruiting employees (West & Altink, 1996) requires employees to behave in an innovative way or to be able to implement their new ideas and process improvements. To do so, several antecedents are needed. These antecedents could be individual-related components like PsyCap, creative behavior and personal initiative, work-related like the degree of autonomy, feedback or significance the employee perceives, and finally strategic management-related like the strategic attention or degree of support for innovation that employees receive. The present study integrated a number of streams of research on the antecedents of innovation and creativity to develop and test a model of innovative behavior. Several researchers examined personal, psychological and

organizational antecedents of creative outcomes (e.g., Amabile, 1998; Amabile & Gryskiewicz, 1987; Kanter, 1988; Tierney & Farmer, 2002; Zhou, 2003). However, innovation occurs when and ideas are implemented, not just generated. Therefore, it is crucial that we start focusing more on what is it that leads to the implementation of new ideas and initiatives. We also examined the positive outcomes of innovative behavior.

HYPOTHESIZED MODEL

Innovative behavior and Positive Outcomes

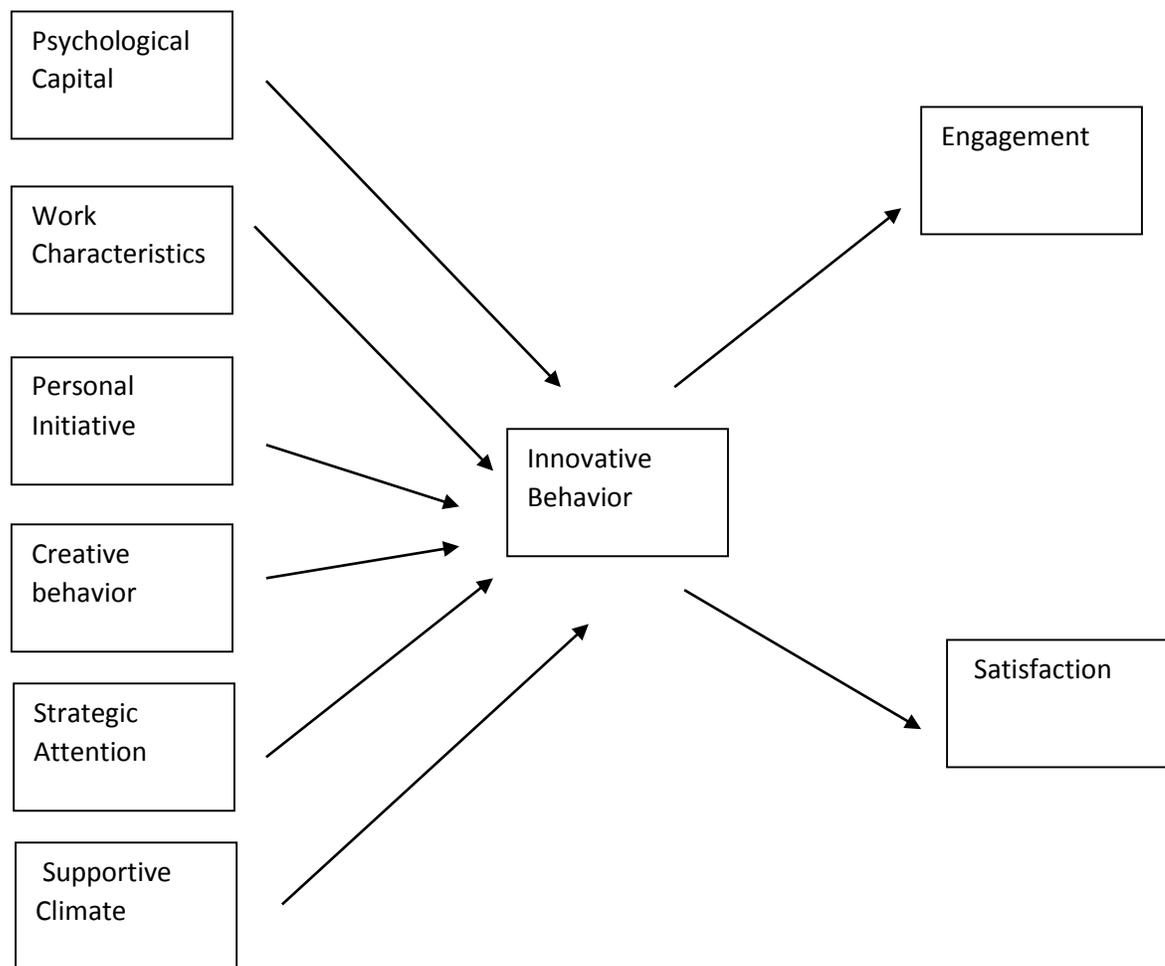
The importance of innovation and necessity of encouraging it is increasing worldwide (Anderson, De Dreu, & Nijstad, 2004; Janssen et al., 2004; Yuan & Woodman, 2010). Studying innovation as an independent variable that affects other variables has been suggested by Anderson and colleagues (2004) in their article that called for a shift in the innovation research. Innovation behaviors that might have been seen previously as inappropriate or disrespectful have become increasingly desirable in today's changeable fast-moving and competitive work environment (Anderson et al., 2004). Innovative behavior can be defined as "all individual actions directed at the generation, introduction and application of beneficial novelty at any organizational level" (Kleysen & Street, 2001, p.285). Innovative behavior is not limited to developing new product ideas and new technologies, but it also includes initiating new ideas or changes in administrative procedures that aims at improving work relations or the application of new ideas or technologies to work processes aiming at enhancing the effectiveness of work (Kleysen & Street, 2001; Yuan et al., 2010). It consists of various practices and behaviors such as opportunity discovery, idea generation, influential investigation, championing, and application (Jong & Kemp, 2003; Kleysen & Street, 2001; West & Farr, 1989).

Engagement is defined as "the investment of an individual's complete self into a role" (Rich, Lepine and Crawford, 2010, p. 617). Several research studies examined the impact of engagement on innovative behavior (Chang, Hsu, Liou, & Tsai, 2013; Vinarski-Peretz, & Carmeli, 2011), however the impact of innovative behavior on engagement has never been examined despite its importance. According to Csikszentmihalyi (1996), creativity leads to a more fulfilling life and meaningful life. Creative achievements lead to more engagement in life whereby creative people experience flow (Sawyer, John-Steiner, Moran, Sternberg, Feldman, Nakamura, & Csikszentmihalyi, 2003). Creative people find joy and pleasure in pursuing their creative accomplishments which in turn leads to feelings of engagement (Sawyer et al., 2003). According to Csikszentmihalyi (1997), creativity leads to more wellbeing and happiness. The experience of creative achievements, which in this case describes innovative behavior since it involves implementation, leads to the feeling of flow (Sawyer et al., 2003), which is a positive state when you feel your skills are used to their utmost, a state that makes life worth living (Csikszentmihalyi, 2002; Nakamura & Csikszentmihalyi, 2002; Seligman, 1995, 2002a, 2002b). This feeling is closely related to engagement as defined by Rich and colleagues (2010) and as measured in the current study whereby employees who are engaged choose to invest their affective, cognitive, and physical energies simultaneously. In their article, Rich and colleagues (2010) classified engagement into three types of engagement; physical, cognitive and emotional whereby engaged employees are describes as "being psychologically present, fully there, attentive, feeling, connected, integrated, and focused in their role performances" (p. 619). The fact that engaged employees are those who invest their physical, emotional and cognitive energies into their work roles makes it a closely linked concept to flow. In other words, if creative achievements lead to flow then it should lead to engagement as flow involves a higher and more deep level of using your skills and energies to the most so that you feel absorbed in the work you are doing. Therefore, it is likely to assume that innovative behavior should lead to engagement.

Research on innovative behavior and satisfaction has been very few and examined the impact of job satisfaction on innovative behavior (Bysted, 2013; Han-Jen, 2014) and not vice versa. Based on the above link between creative achievements and flow, it is likely to assume that employees who are belt o implement their creative ideas are more likely to be satisfied about their jobs. Innovative cultures influence employees' levels of satisfaction, commitment, and cohesion (Odom, Boxx, & Dunn, 1990). In jobs that require a degree of creativity, employees' satisfaction might suffer if the job settings are not enhancing creativity (Shalley, Gilson, & Blum, 2000). Innovative employees who have creative minds might get de-motivates and so unsatisfied with their jobs if their ideas are not implemented. Therefore, we suggest that innovative behavior should lead to more satisfaction.

H1: Innovative behavior relates positively to employee satisfaction and engagement.

FIGURE 1
THE HYPOTHESIZED MODEL



Innovative behavior Antecedents

Innovation research has flourished over the last 40 years as organizations started to change from bureaucratic and rigid to more flexible, flat structures where innovation and team work are fostered (Anderson et al., 2004). Several research studies examined factors affecting innovative behavior at three levels of analysis; the individual, work group, and the organization (for major reviews, see Randall, 2005; Amabile 1996a, 1996b; Amabile, T., & Gryskiewicz, 1987; West, 2001). In their article, Anderson and

colleagues (2004) summarized the findings of factors affecting innovation or creativity where at the individual level factors included personality characteristics of proactivity, self-confidence and originality, motivation, and cognitive ability, at the work-level, factors included job characteristics, at the work group level, factors included team climate and team member characteristics, and finally, at the organizational level, culture, strategy, and structure were among the factors that influenced innovation. Though job characteristics, supportive climate, strategic attention, personal initiative (PI) and creativity were examined before, they were not examined in one model and were not necessarily examined as predictors for innovative behavior but for the innovation process or other types of innovative behavior related concepts like creativity or creative performance. Besides, PsyCap with its four components are added to the model where such relationship has never been examined before with innovation or innovative behavior despite its significance. PsyCap as well as its four components were found to predict creative performance (Sweetman, Luthans, Avey, Luthans, 2006). In addition, some aspects of work characteristics were addressed but not all task and knowledge characteristics like in the current study. In the below lines, we highlight on the theoretical linkages and hypotheses development for the antecedents of innovative behavior.

Innovative Behavior and Creativity

We conceptualize innovative behavior as complex behavior consisting of activities relevant to both the generation of new ideas and the awareness or implementation of new ideas (see Yuan et al., 2010). Creative behavior is therefore a related concept. In their article about the “routinization” of innovation research, Anderson and colleagues (2004) stressed on the importance of defining innovation and how it differs from individual creativity. According to Anderson and colleagues (2004), innovation differs from creativity in that it involves idea generation and application while creativity can refer to idea generation alone. They also highlighted in the fact that innovation must present intended benefit while this is not a must in the case of creativity.

As mentioned earlier creativity is about the introduction and generation of new ideas while innovation involves not only the generation of ideas but also the implementation of such ideas (Anderson et al., 2004; George & Zhou, 2001). Creative performance was found to be crucial for an organization’s survival and for organizations to achieve competitive edge (Amabile, 1998; George & Zhou, 2001). Creativity has often been viewed as an antecedent of firm level innovation (Amabile, 1996; Amabile, 1988; Madjar, Oldham, & Pratt, 2002). Oldham and Cummings (1996) defined creative performance as “products, ideas, or procedures that satisfy two conditions: (1) they are novel or original and (2) they are potentially relevant for, or useful to, an organization” (p.608). Zhou (2003) defined creativity as “employees’ generation of novel and useful ideas concerning procedures and processes used at work” (p.413). However, creative ideas might not be converted into innovative products due to the unacceptability of the field or the market to the creative idea itself (Nakamura & Csikszentmihalyi, 2001). Research showed that intrinsic motivation leads to increased creativity and innovation (Amabile, 1997; Spreitzer, 1995). In addition, creative performance was found to be an antecedent to innovation (Amabile, 1988; Madjar, Oldham, & Pratt, 2002). According to Oldham and Cummings (1996), creative performance is not just about ideas; it is about products and procedures produced at the individual level whereas innovation refers to the successful implementation of these products or procedures at the organization level. Therefore if creativity is about the creation of ideas while innovation is about implementation then creativity should be a prerequisite for innovation.

H2: Creative behavior relates positively to innovative behavior.

Innovation and Positive Psychological Capital

Positive organizational behavior (Luthans 2002a; 2002b; Wright, 2003) has its roots in the field of positive psychology which was initiated by positive psychologist Martin Seligman (Seligman, 2007; Seligman &

Csikszentmihalyi, 2000; Seligman, Steen, Park, & Peterson, 2005; Sheldon & King, 2001). Positive psychology focuses on the study of positive emotions, positive traits and positive institutions (Seligman et al., 2005). Positive psychology at the subjective level is mainly about “valued subjective experiences” like well-being and satisfaction. At the individual level, it is about positive traits like courage, wisdom, forgiveness, spirituality, and originality. While at the group level, it is about work ethics, responsibility, and tolerance (Seligman & Csikszentmihalyi, 2002). Seligman (2007) defined positive psychology as "the study of positive emotion, of engagement, and of meaning, the three aspects that make sense out of the scientifically unwieldy notion of happiness" (p.266).

The positive psychology movement was triggered as psychologists realized that for so long their main focus was on preventing problems, neglecting the competency building dimension (Seligman & Csikszentmihalyi, 2002; Luthans 2002a; 2002b; Money, Hillenbrand, & Camara, 2008). As stated by Seligman and his colleagues (2005), "it makes sense to study what is right about people in addition to what is wrong" (p. 413). Thus, positive psychology is an attempt to encourage psychologists to start adopting a more open point of view regarding what human beings could do or have (Sheldon & King, 2001).

Since the origin of organization behavior, the focus has been on managerial dysfunctions and employee problems without paying much attention to positive capacities that are more likely to have an impact on performance and productivity (Luthans, 2002a; 2002b; Wright, 2003; Wright & Quick, 2009). In a computer search about psychology literature, Luthans (2002b) found approximately 375,000 articles on negative constructs like fear, depression and anxiety, and only about 1000 articles on positive concepts and capacities. Moreover, for the past decade, positively-oriented bestselling books like Norman Vincent Peale’s message of the power of positive thinking and Steven Covey’s seven habits of highly effective people have approached positivity in the workplace but were not theory and research driven (Luthans 2002a; 2002b). Thus, Positive organizational behavior is about bringing the positive psychology concepts and applications to the workplace (Luthans 2002a). Luthans (2002b) defined positive organizational behavior as "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace"(p.59).

A psychological resource capacity within the defined POB should include the following criteria: (a) The capacity should be theory-based, researchable and measurable (b) the capacity must also be "state-like" or open to development and have a demonstrated performance impact (Youssef & Luthans, 2007; Luthans, Avolio, Avey, & Norman, 2007b). Thus, the main focus of positive organizational behavior (POB) is on state-like variables unlike positive psychology or positive organizational scholarship that focus on trait-like variables. Examples of constructs that meet these criteria are confidence, emotional intelligence, hope, optimism, and happiness or subjective well-being (Luthans 2002a, 2002b; Wright, 2003).

The capacities that best meet the above-mentioned criteria and have been identified to date are self-efficacy, hope, optimism and resilience (Luthans & Youssef, 2004; Luthans et al., 2004). In the below lines, we describe how each of the four components of hope, optimism, self-efficacy and resilience, as well as PsyCap as a core construct are related to innovative behavior. Several researchers examined personal and psychological antecedents of creative outcomes (e.g., Amabile, 1998; Amabile & Gryskiewicz, 1987; Kanter, 1988; Tierney & Farmer, 2002; Zhou, 2003). These studies are above all significant here as the variables we investigated have been referred to as intrinsic motivational propensities (Luthans, Avolio, Avey, & Norman, 2007).

Self-efficacy

The first component of PsyCap is self-efficacy. Self-efficacy is defined as "an individual's convictions (or confidence) about his or abilities to mobilize the motivation, cognitive resources, and courses of action needed to successfully execute a specific task within a given context" (Stajkovic & Luthans, 1998b, p.66). Self-efficacy is crucial for success and achievements. That is, for a person to achieve a task or a goal, it requires not only skills but also beliefs of self-efficacy that could help out to his/her skills well (Bandura, 1993).

Stajkovic & Luthans, (1998b) identified three dimensions for self-efficacy that are crucial for its understanding. First, the magnitude of efficacy expectations, which refers to the level of task difficulty. The second dimension is the strength of efficacy expectations, or how confident an employee is about performing a certain task. People who have self-efficacy are able to find out ways of exercising control even when there are few chances or many limitations (Bandura, 1993). The third dimension is generality and refers to whether or not efficacy is indiscriminate across tasks.

As for the determinants of self-efficacy, Bandura (1997) has identified four categories of experiences that determine efficacy beliefs. First, self-efficacy could be enhanced through accomplishing a given task. Second, is "Vicarious learning" could also increase self-efficacy, which is mainly about the social environment in which the employee works. The employee simply observes experienced individuals performing a similar task and is then influenced by them. Third is the verbal persuasion whereby the employee is somehow inspired or motivated through encouragement and focusing on enhancing the belief that he/she "has what it takes". The last determinant is the Psychological arousal.

The practical implications that self-efficacy has for human performance can no longer be overlooked by managers and professionals as employees who perceive themselves as highly efficacious will trigger sufficient effort that should produce successful outcomes or results (Stajkovic & Luthans, 1998b). On the other hand, a person who is low in self-efficacy will have doubts that he/she can do what is needed to achieve a certain task (Bandura, 1993). A meta-analysis conducted by Stajkovic and Luthans (1998a) showed that self-efficacy is related to work-related performance. More specifically, they found a significant weighted average correlation of .38 between self-efficacy and performance. As a positive state-like capacity, self-efficacy was found to be positively related to individual OCBs (Organization citizenship behaviors), and negatively related to organizational cynicism, intentions to quit, and counterproductive workplace behaviors (Avey, Luthans & Youssef, 2009). Moreover, Avey, Wernsing and Luthans (2008) examined the relationship between self-efficacy as a component of Positive psychological capital and positive emotions. They found a significant relationship between efficacy and positive emotions that in turn were related to positive attitudes like engagement. Moreover, a study by Tierney and Farmer (2002) showed that there is a positive relationship between creative self-efficacy, a new construct that combines self-efficacy with creativity, and creative performance. Among the characteristics of creative people is self-confidence (Barron & Harrington, 1981). People who are more self-efficient are more likely to take risks (Shane, Locke, & Collins, 2003) whereby risk-orientation was identified as main factors affecting the implementation of novel ideas (Amabile, & Gryskiewicz, 1987). Finally, creative self-efficacy among students was found to predict innovative behavior (Li & Wu, 2011). Thus it is likely to assume that self-efficacy is related to innovative behavior.

Hope

The term "Hope" is used in our daily language but as discussed here hope is based on the theory and research of C. Rick Snyder. Hope is defined as "a cognitive set that is based on a reciprocally derived sense of

successful (a) agency (goal-directed determination) and (b) pathways (planning of ways to meet goals) (Snyder et al., 1991, p.571). Snyder (2002) defined hope more precisely as “the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways” (p.249).

The agency component refers to individuals’ thoughts about their ability to initiate and prolong movement toward goal accomplishment (Peterson & Byron, 2008). Agency can be viewed as having the will to meet goals (Snyder et al., 1991). Pathways are cognitive routes to goals (Snyder et al., 1996). Thus, the pathways component refers to one's sense of ability to generate ways or means to meet these goals (Snyder et al., 1991; Snyder et al., 1996). Together, the two components make the will or the "I believe I can do it" and the way or the "I believe there are so many ways".

As proposed by Snyder and his colleagues (1991, 1996), both components should be present if a person is to maintain a movement in his /her life. For example, one might have the will (agency) but lacks the way to meet the goals (pathways). On the contrary, one might have the sense of pathways but without the agency. However, to possess hope as defined and operationalized, one should have both, the will or motivation to accomplish a specific task or goal and the ways so as to achieve such goals.

Though agency and the pathways help individuals achieve their goals (Peterson & Byron, 2008), one might be high in hope and yet not achieve his or her goals (Feldman, Rand, & Kahle-Wroblewski, 2009). However, Feldman et al., (2009) argued that hope's two components of pathways and agency lead an individual to “behave so as to attain personal goals” so it serves as the cognitive basis needed to attain such goals. In their study about hope and goal attainment, they found out that hope’s agency component is related to goal attainment. As for the pathway component, it should lead to the creation of different strategies so as to achieve the goals (Peterson & Byron, 2008).

Hope differs from self-efficacy in that hope covers the cognitive elements of pathways and agency so it includes planning and motivation. However, self-efficacy is concerned with the belief that one can perform a certain task or behavior (Feldman et al., 2009). However, high hoppers’ emotions are flavored with friendliness, happiness and confidence (Snyder 2002).

Hope theory has received considerable support through empirical research in numerous settings. Research showed that hope is related to academic and sports achievement (Curry, Snyder, Cook, Ruby, & Rehm, 1997), goal attainment (Feldman et al., 2009), and performance (Peterson & Byron, 2008; Peterson, Gerhardt, & Rode, 2006). A study that is related to the current study was done by Peterson and Byron (2008) where they examined the relationship between retail sales associates, mortgage brokers, and executives’ level of hope and its relationship to job performance. Results showed that high hope employees had significantly higher job performance. In the same study, the authors examined whether more hopeful employees tend to solve work-related problems in a way other than that of less hopeful employees. Results showed that more hopeful employees provided better and more solutions to a specific problem. So, the study provided more insight into why more hopeful employees may perform better by developing innovative solutions to problems.

As a positive state-like capacity, Avey and colleagues (2009) examined the relationship between hope and work outcomes. Results showed that hope is positively related to individual OCBs (Organization citizenship behavior), and negatively related to organizational cynicism, intentions to quit, and counterproductive workplace behaviors. Moreover, Avey and colleagues (2008) examined the relationship between hope as a component of Positive psychological capital and positive emotions. They found a significant relationship

between hope and positive emotions that in turn were related to positive attitudes like engagement. Moreover, hope has been found to be positively related to satisfaction (Luthans & Youssef, 2007; Luthans et al., 2007b; Luthans et al., 2008), work happiness, and commitment (Youssef and Luthans, 2007). Related to the current study, hope was found to be related to creative performance (Sweetman et al., 2010). The role of goals and how they make the first and most important component in any action by employees provide support for our hypothesis (see Frese & Zapf, 1994). Since innovative behavior consists of opportunity exploration which is mainly about identifying new opportunities (Kanter, 1988), it is likely to assume that individuals who are hopeful are more likely to be innovative as they generate pathways to their desired goals.

Optimism

The third POB criteria-meeting capacity is optimism, which is defined by Seligman (1995, 2006) as an attributional or explanatory style whereby an optimistic person explains positive events in terms of personal, permanent, and pervasive universal causes and negative events in terms of impersonal, temporary, and situation-specific ones. In everyday language, an optimist is the one who always expects positive and pleasing outcomes for the future and the pessimist on the contrary is the one that expects negative outcomes and is constantly having negative thoughts (Scheier & Carver, 1985; Luthans et al., 2007b). Thus, optimism is mainly about expectancy judgment (Lee, Ashford & Jamieson, 1993). On the other hand deliberately optimistic people might expose themselves to higher risks or negative consequences when they underestimate the consequences of a certain act just because they are optimistic (Peterson & Chang, 2003).

Optimism has been linked to a variety of positive outcomes like good morale, effective problem solving, academic, political and occupational success, happiness, achievement, good health and even long life. On the contrary, pessimism has been linked to depression, failure and passivity (Peterson, 2000). Innovation, team orientation and risk taking should be related to the degree of optimism of employees (Medlin, Jr., & Gaither, 2010). Though optimism has been linked to innovative behavior of students (Li & Wu, 2011), no research examined this relationship at the workplace. Optimists are likely to produce new ideas since they have positive expectations about the success of their ideas.

As a positive state-like capacity, a study by Avey and colleagues (2009) showed that optimism is positively related to individual OCB (Organization citizenship behavior), and negatively related to organizational cynicism, intentions to quit, and counterproductive workplace behaviors. Moreover, Avey and colleagues (2008) examined the relationship between optimism as a component of Positive psychological capital and positive emotions. They found a significant relationship between optimism and positive emotions that in turn were related to positive attitudes like engagement. Moreover, optimism has been found to be positively related to satisfaction (Luthans & Youssef, 2007; Luthans et al., 2007b), and work happiness (Youssef and Luthans, 2007). Therefore, a person who is high in optimism is likely to be high in innovative behavior.

Resilience

During the 1970s, a group of psychologists started to raise the issue of resilience in children who have experienced adversity or risk (Masten, 2001). Masten (2001) defined resilience as " a class of phenomena characterized by good outcomes in spite of serious threats to adaptation or development" (p.288). As a positive psychological state, resilience is defined as " the positive psychological capacity to rebound, to 'bounce back' from adversity, uncertainty, conflict, failure or even positive change, progress and increased responsibility" (Luthans, 2002a, p.702). This process of bouncing back is occurred through the positive assessment of risks and personal assets (Luthans, Vogelgesang, & Lester, 2006). As highlighted by Amabile (1996a), creative thinking, which in turn should lead to innovative behavior or is a component of innovative

behavior (Fay & Frese, 2001), depends on personality characteristics related to orientation toward risk-taking, tolerance for ambiguity, and most importantly insistence in the face of frustration. Therefore, resilience is characterized by proactive responses in the face of failure or even great success. From this link, we can conclude that more resilient individuals are more likely to be innovative as they are more likely to take risks and are more willing to accept change.

Resilience requires two basic judgments: (1) that there must be current or past confirmable risk to overcome and (2) that the quality of adaptation is evaluated as “good” or “ok” (Masten, 2001). As Coutu (2002, p.46) states “Confronted with life’s hardships, some people snap, and others snap back”. Resilience results in most cases from the function of “basic human adaptational system” (Masten, 2001). However, individuals vary in the degree of adaptability and the way they respond to the changes that they face (Block & Kremen, 1996) as problems occur when these systems are not operating normally (Masten & Obradovic, 2006). Adaptational systems could be learning systems of the human brain which involves problem solving, mastery motivation system which involves self-efficacy processes, and also cultural and social systems (Masten & Obradovic, 2006).

Resilience research has been approached from either a variable-focused or a person-focused approach (Masten, 2001). Variable-focused approach examines the linkage between the degree of risk or adversity, outcome, and possible qualities of the individual that may protect the individual from the negative consequences of such risks and adversities. On the other hand, person-focused approach focuses on comparing individuals who are resilient with those who are not (Masten, 2001). Resilient people hold three characteristics: acceptance of reality that would increase one’s ability to survive, a belief that life is meaningful even in terrible times, and an ability to cope and improvise (Coutu, 2002).

According to Fredrickson (2000), individuals might differ in their interpretation and use of positive emotions because of their level of resilience. In her study, resilience predicted positive emotions. In the workplace, resilience is extremely important especially in the era of downsizing, restructuring and continuous major changes. One’s level of resilience could be more important than experience or education when it comes to succeeding (Coutu, 2002). Past research on resilience has been limited to clinical areas of Psychology. However, Luthans and colleagues (2007a; 2008a, 2008b) have examined the impact of resilience on work outcomes. For example, Youssef and Luthans (2007) found a significant relationship between resilience and job satisfaction, work happiness and organizational commitment.

As a positive state-like capacity, a study by Avey and colleagues (2009) showed that resiliency is positively related to individual OCB (Organization citizenship behavior), and negatively related to organizational cynicism, intentions to quit, and counterproductive workplace behaviors. Moreover, Avey and colleagues (2008) examined the relationship between resilience as a component of Positive psychological capital and positive emotions. They found a significant relationship between resilience and positive emotions that in turn were related to positive attitudes like engagement.

Related to this study, Luthans et al. (2005) found a significant relationship between the resilience of factory Chinese workers and their performance whereas performance was measured by supervisor ratings and by merit increases for a part of the sample. Another study that was also conducted on Chinese workers showed a significant positive effect between resilience and performance as measured by supervisor ratings (Luthans et al., 2008b). In addition Luthans and colleagues (2007b) examined the relationship between resilience and satisfaction and performance and found a significant positive relationship between them. Their study was divided into two studies whereas in study 1 performance was self-rated and in study 2 it was measured by

actual performance evaluations. Resilience was also found to be related to performance in other studies (Youssef & Luthans, 2007; Luthans et al., 2008a).

Using the previously-mentioned criteria of being open to development and research and theory-based, Luthans and Youssef (2004) proposed four POB capacities which are; self-efficacy, hope, optimism and resilience. The four state-like capacities are included as a combined construct to form what Luthans and his colleagues have referred to as positive psychological capital or PsyCap (Luthans et al., 2007b; Luthans et al., 2004; Luthans & Youssef, 2004). Luthans and colleagues (2007a, p. 3) defined psychological capital or PsyCap as "an individual's positive psychological state of development and is characterized by: (1.) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2.) making a positive attribution (optimism) about succeeding now and in the future; (3.) preserving toward goals, and when necessary, redirecting paths to goals (hope) in order to succeed; and (4.) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success".

Positive psychological capital or PsyCap in short is mainly about "Who you are" and is differentiated from human capital "what you know" and financial capital "what you have" and "what you can become" (Luthans et al., 2004; Luthans & Youssef, 2004; Luthans et al., 2007a). PsyCap has been found to be an additive variable to human and social capital equation (Larson, 2004). Several studies examined the between PsyCap and performance (Luthans et al., 2005; Luthans et al., 2007; Luthans et al., 2008a; 2008b) and found a significant positive relationship between PsyCap and performance. Figure 2 illustrates the four different types of capital. According to West (2001), when individuals feel positive, they are more likely to innovate. However, up to our knowledge, the link between positive psychology constructs like hope and optimism has never been tested in relationship to innovative behavior.

Research proved that psychological safety is a crucial antecedent for innovation (West & Altink, 1996). Previous research showed that psychological empowerment leads to increased innovation (Spreitzer, 1996). Psychological empowerment is defined as "intrinsic motivation embodying a set of four psychological states reflecting an individual's orientation toward his or her work: meaning, self-determination, impact, and competence" (Alge, Ballinger, Tangirala & Oakley, 2006, p.223). Psychological empowerment was also found to be related to creative performance (Alge et al., 2006). Creative individuals own up positivity, optimism or hope, which allow them to continue to be creative and stay fully engaged (Sawyer et al., 2003). Therefore, based on the above linkages and the ones discussed earlier, it is likely to assume that the four psychological states as well as PsyCap as a core construct could predict innovative behavior.

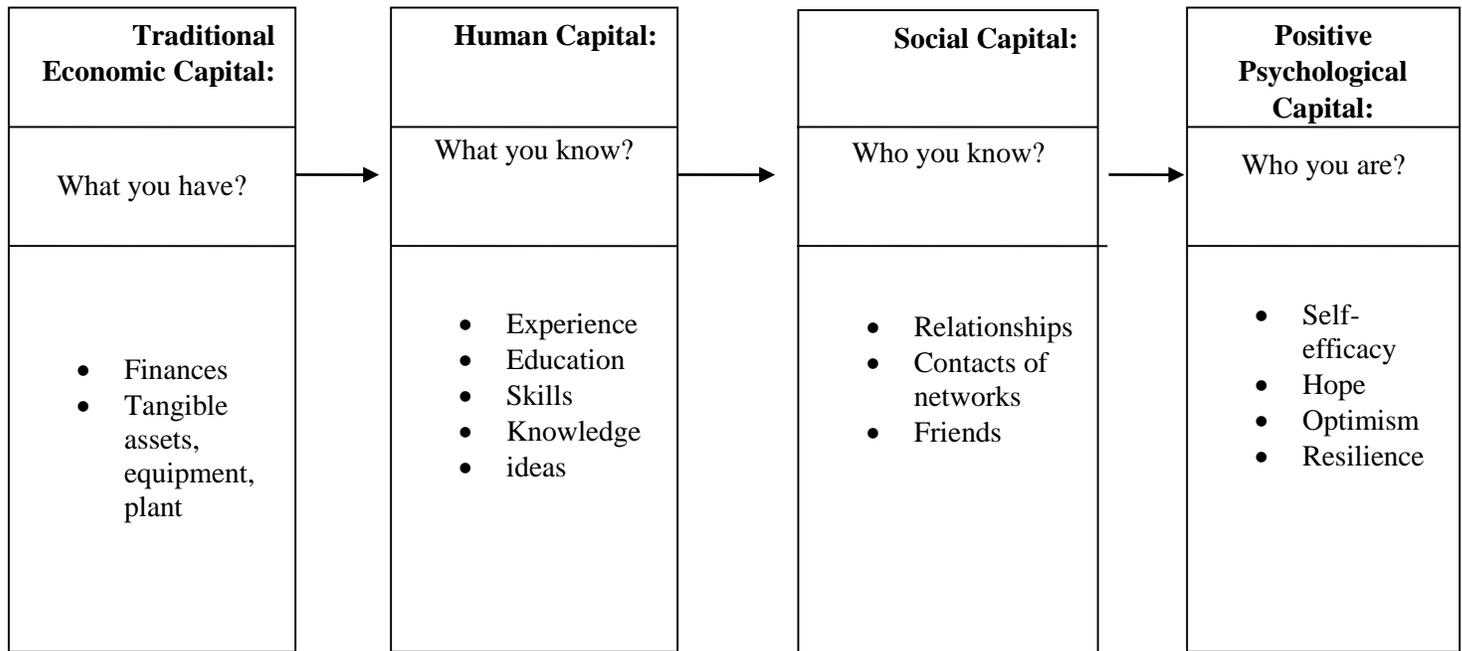
H3.1: Employee's levels of hope, optimism, resilience and self-efficacy relates positively to innovative behavior.

H3.2: Employee's PsyCap relates positively to innovative behavior.

Innovative Behavior and Job characteristics

The role that job characteristics plays in fostering creativity has been highlighted by many researchers (Amabile & Gyskiewicz, 1987; Axtell, Holman, Unsworth, Wall, Waterson, & Harrington, 2000; Frese, Garst, & Fay, 2007; Ohly & Fritz, 2010). Though previous research examined relationships between some aspects of work characteristics like time pressure and job control (Ohly & Fritz, 2010), autonomy (Axtell et al., 2000), and complexity (Amabile et al., 1996) on creativity, up to our knowledge, we did not find any previous research that investigated the impact of all work characteristics of task and knowledge characteristics together with innovative behavior. Previous research on work characteristics focused on

FIGURE 2
EXPANDING CAPITAL FOR COMPETITIVE ADVANTAGE (LUTHANS ET AL., 2004)



creativity (Amabile et al., 1996; Ohly, Sonnentag & Plunkate, 2006) or innovation (Damanpour, 1991), and not innovative behavior, or investigated the relationship between some dimensions of work characteristics on innovative behavior (e.g., Scott & Bruse, 1994) but not all task and knowledge characteristics together. In the coming lines we will examine each dimension of work characteristics and how it relates to innovative behavior. The work design theory by Hackman and Oldham (1976) will be explored in addition to the Work Design Questionnaire (WDQ) by Morgeson and Humphrey (2006).

Hackman and Oldham (1975, 1980) introduced job characteristics theory to explain the dimensions in which employees would be intrinsically motivated when they perform a job. By enhancing jobs along the five dimensions, organizations can encourage positive work attitudes as well as increased work quality. The five dimensions are: (1) variety (the degree to which a job requires the use of a number of different skills and talents); (2) identity (the degree to which the job requires completion of a "whole" piece of work, or doing a task from beginning to end with a visible outcome); (3) significance (the degree to which the job has a substantial impact on the lives of other people); (4) autonomy (the degree to the job provides substantial freedom); and (5) feedback (the degree to which the job provides clear information about performance levels).

The theory proposes that positive outcomes like motivation, satisfaction and performance would result when "critical psychological states" are present. These states include: "(1) experienced meaningfulness of the work, (2) experienced responsibility for the outcomes of the work, and (3) knowledge of the results of the work activities" and are created by the existence of the five job dimensions (Hackman and Oldham, 1976, p.160). The psychological state of experienced meaningfulness of the work is mainly obtained by the three dimensions of task significance, skill variety and task significance. If any dimension of the three

dimensions is missing, meaningfulness drops (Hackman, Oldham, Janson & Purdy, 1975). Experienced responsibility is enhanced by job autonomy. Knowledge of the results is enhanced when the job is high in the dimension of Feedback (Hackman & Oldham, 1976; Hackman et al., 1975). Moreover, if any of the psychological states is missing however, motivation is decreased. That is, the theory entails that motivation will result only if the job is high in at least one of the three dimensions that results in the psychological state of meaningfulness, and both feedback and autonomy as well (Hackman et al., 1975).

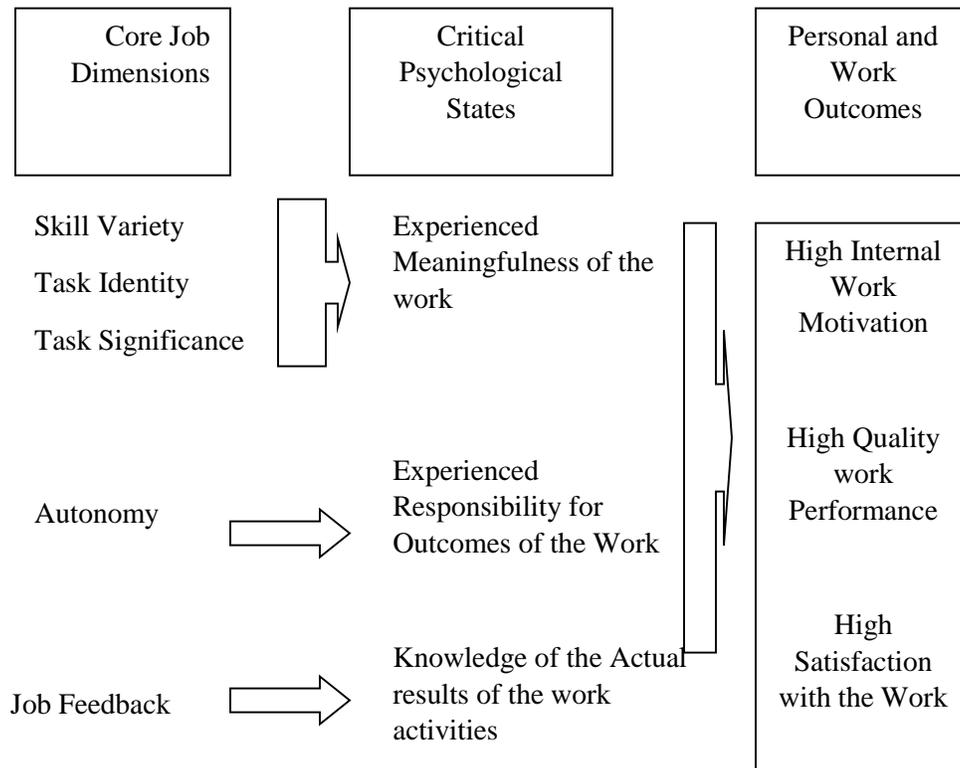
In addition, three factors were suggested as moderators to the job characteristics-critical states relationships and the critical states-work outcomes relationships (Fried & Ferris, 1987). These are knowledge and skill growth, need growth, and context satisfaction (Hackman & Oldham, 1976; Fried & Ferris, 1987). Hackman and Oldham (1980) described growth needs as needs for development, learning and accomplishments. People who are high in growth-need strength (GNS) will be affected by job enrichment while people who are low in growth-need strength might not be affected at all (Hackman et al., 1975). The job characteristics model is shown in figure 3.

There is evidence that when job characteristics are manipulated, job holders' perceptions about their job are changed. Finally, several studies examined the relationships between job characteristics and work outcomes. Researchers found significant relationships between job characteristics and job satisfaction (Spector & Jex, 1991), goal commitment and intrinsic motivation (Piccolo & Colquitt, 2006). Moreover, skill variety and job significance have been found to have a significant relationship with Organizational citizenship behavior, whereas job identity, job feedback and job autonomy were not found to have a significant relationship with it (Chiu & Chen, 2005).

The Work Design Questionnaire (WDQ) developed by Morgeson and Humphrey (2006) included a more complete version for work design dimensions where they reviewed the work design literature and developed a measure to tap those work characteristics. They classified work characteristics into task characteristics, which is similar to Hackman and Oldham (1976), that included autonomy, task variety, task significance, task identity, task identity and feedback from job, and knowledge characteristics which included job complexity, information processing, problem solving, skill variety, and specialization. Their classification also included social characteristics like social support and interdependence and contextual characteristics like ergonomics and physical demands. In the current study we focus on task characteristics and knowledge characteristics. Research showed that intrinsic motivation, which is an outcome for job characteristics, leads to increased creativity and innovation (Amabile, 1996a, 1996b; Amabile & Gryskiewicz, 1987; Spreitzer, 1995). A meta-analysis by Harrison and colleagues (2006) showed how work characteristic dimension of autonomy predicted creativity at work. Besides, if job characteristics are ought to increase intrinsic motivation which is a major factor for the implementation of novel ideas then it is likely to assume that job characteristics should lead to innovative behavior. Individuals working on jobs characterized by high levels of autonomy, feedback, significance, identity and variety (Hackman & Oldham, 1980) are more likely to experience intrinsic motivation and so produce creative ideas (Shalley, Zhou, & Oldham, 2004).

Job complexity should be related to innovative behavior for a couple of reasons. First, according to Amabile and colleagues (1996), challenging work fosters creativity. Besides a study by Tierney and Framer (2002) found that employees in complex jobs showed more creative self-efficacy. Employees were found to produce creative work when they worked on complex and challenging job (Oldham & Cummings, 1996). Systematic problem solving was also found to predict innovative behavior (Scott & Bruce, 1994). Specialization was found to have a strong impact on technological innovations (Damanpour, 1987) and innovations in general (Damanpour, 1991). However, specialization in Damanpour's research studies is an

FIGURE 3
A THEORETICAL MODEL RELATING THE CORE JOB DIMENSIONS, THE CRITICAL PSYCHOLOGICAL STATES, AND ON-THE-JOB OUTCOMES (AS MODERATED BY EMPLOYEE GROWTH NEED STRENGTH) (HACKMAN AND OLDDHAM, 1976)



organizational structure factor that represents different specialists who use different technologies and are specialized in different areas (Damanpour, 1987). Specialization as a work characteristic factor reflects "the extent to which a job involves performing specialized tasks or possessing specialized knowledge and skill" (Morgeson & Humphrey, 2006, p.1324). Indeed, both share the component of specialization in a specific area where one is an expert in a specific area. Feedback was also found to increase creativity (Zhou, 2003). Several researchers have suggested that innovation is fostered when an employee is given a considerable degree of freedom or autonomy (Amabile, 1996a; Amabile et al., 1996; Amabile & Grysiewicz, 1987). In addition, employees who have more autonomous and broader roles and who are more confident in performing their work activities outside their technical job are most likely to make suggestions (Axtell et al., 2000). Therefore it is likely to assume that job identity and job autonomy will predict innovative behavior.

H4.1: Task characteristics of autonomy, task identity, task significance, task variety and feedback from job will relate positively to innovative behavior.

H4.2: Knowledge characteristics of complexity, information processing, specialization, problem solving and skill variety will relate positively to innovative behavior.

Innovative Behavior and Personal Initiative

Proactivity is a self-started and change-oriented behavior that one uses to improve personal or organizational effectiveness (Unsworth & Parker, 2003). Personal initiative (PI) is a form of proactivity that is defined as "a behavior syndrome resulting in an individual's taking an active and self-starting approach to work and going beyond what is formally required in a given job", (Frese, Kring, Soose, & Zempel, 1996, p.38; see also Frese, Fay, Hilburger, Leng and Tag, 1997). Though previous research examined the relationship between personal initiative and work-unit innovativeness (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008), and between initiative as a climate factor and innovation (Baer & Frese, 2003), no published study examined the link between PI as an antecedent to innovative behavior. The application component of innovative behavior is mainly about creating, testing and commercializing an innovative idea (Kanter, 1988; De Jong & Kemp, 2003). Crant (2000) defined proactive behavior as "taking initiative in improving current circumstances or creating new ones; it involves challenging the status quo rather than passively adapting to present conditions" (p.436). Proactive people don't wait for opportunities to come to them; they search for it (Crant, 2000). Proactive personality was found to be related to organizational practices and innovations (Parker, 1998) and to intentions to start a business (Crant, 1996). In addition, company presidents with proactive personalities were found to be related to changes in sales and company posture (Becherer & Maurer, 1999). Innovative behavior includes initiating new ideas or changes in administrative procedures that aims at improving work relations or the application of new ideas or technologies to work processes aiming at enhancing the effectiveness of work (Kleysen & Street, 2001; Kanter 1988) which requires a proactive behavior to be accomplished. Finally, PI's self-starting aspect involves strategies and goals development that are unique and unusual and developed by employees whose role does not include doing so (Fay & Frese, 2001; Frese et al., 2007; Sonnentag, 2003; Unsworth & Parker, 2003). Therefore, it is likely to assume that PI will have a direct positive effect on innovative behavior since employees who are high in PI are more likely to face obstacles and achieve their unusual objectives and goals.

H5: Personal initiative relates positively to innovative behavior.

Innovative Behavior and Supportive climate

In addition to what a person possesses to be creative like technical skills or creative thinking, he or she will not be able to motivate if the organization did not support them with all tools like sufficient time, funds allocated to work domain, material resources, relevant information and training (Amabile, 1996a). Psychological climate is defined as a "set of perceptions that reflect how work environments, including organizational attributes, are cognitively appraised and represented in terms of their meaning to and significance for individuals" (James, Joyce, & Slocum, 1988, p.129). Perceived organizational support (POS) was found to be related to in-role performance and extra-role performance (Byrne & Hochwarter, 2007), partially mediated the effect of intrinsically satisfying job conditions on organizational affective commitment and fully mediated the effect of extrinsically satisfying job conditions on organizational affective commitment (Stinglhamber & Vandenberghe, 2003). Supportive climate was also found to predict satisfaction and commitment (Luthans et al., 2008). In addition, individuals who experienced greater team leader support, and support from management for innovation were those who reported that more of their suggestions were put into practice (Axtell et al., 2000). Support for innovation and climate perceptions were also found to predict innovative behavior (Scott & Bruce, 1994). Therefore, an employee is more likely to come up with new ideas and work on implementing it if he/she feels that the organization will support in its implementation.

H6: Supportive climate relates positively to innovative behavior.

Innovative Behavior and Strategic Attention

Goals orientations are likely to increase intrinsic motivation (Harrison et al., 2006). A company should pay enough attention to innovation if it seeks to innovate (De Jong & Kemp, 2003) whereby involving employees and front line experts is crucial for the success of innovations (De Brentani, 1991, 2001). A vision directed towards innovation help employees know where the company is heading to and what are the values that are most wanted in the organization (De Jong & Kemp, 2003). A company would not survive in the market unless it provides customers with greater value or comparable value at lower prices or both (Porter, 1996). However, success of achieving such strategic direction is determinant on human resources practices and whether the company achieves alignment between its strategic direction and its human resources practices or not (Youndt, Snell, Dean, Jr., & Lepak, 1996). Product and service development studies showed that paying attention to innovation is tied to improved performance (De Jong & Kemp, 2003). Therefore paying attention to innovation and having a mission and vision that emphasizes innovation should lead to employees implementing new innovations whether ideas or improvements to current services and products. Hence, strategic attention is likely to affect innovative behavior.

H7: Strategic attention relates positively to innovative behavior

Mediation Effects

Finally, we argue that innovative behavior mediates the relationship between the six antecedents of creative performance, PsyCap, work characteristics, PI, supportive climate, and strategic attention and the outcomes of engagement and satisfaction. That is, these antecedents influence engagement and satisfaction through innovative behavior. Previous research showed significant relationships between PsyCap and engagement (Avey et al., 2008) and satisfaction (Luthans & Youssef, 2007; Luthans et al., 2007b; Luthans et al., 2008) and between PsyCap and creative performance (Sweetman et al., 2011). However, no research examined the mediating effect of creativity or innovation on the relationship between PsyCap and satisfaction or engagement. Based on the suggested linkages highlighted above we suggest that the relationship between PsyCap and both satisfaction and engagement is mediated by innovative behavior. Further, positive relationships between work characteristics and engagement (Dijkers, Jansen, Lange, Vinkenbunrg, & Kooij, 2010) and satisfaction (Oldham & Hackman, 1976) were also found. Supportive climate was also found to be related to engagement (Rich et al., 2010) and satisfaction (Luthans et al., 2008). Proactivity was also found to be related to engagement (Jansen et al., 2010). Therefore, it is likely to assume that the relationship between the antecedents of innovative behavior and engagement and satisfaction is mediated by innovative behavior.

H8.1: The relationship between creative behavior and engagement and satisfaction is mediated by innovative behavior.

H8.2: The relationship between PsyCap and engagement and satisfaction is mediated by innovative behavior.

H8.3: The relationship between work characteristics and engagement and satisfaction is mediated by innovative behavior.

H8.4: The relationship between PI and engagement and satisfaction is mediated by innovative behavior.

H8.5: The relationship between supportive climate and engagement and satisfaction is mediated by innovative behavior.

H8.6: The relationship between strategic attention and engagement and satisfaction is mediated by innovative behavior.

METHODOLOGY

Sample

Participants in the study are Egyptian professionals from a variety of job types in different companies were approached by email or through the phone to be able to distribute the survey. The survey was also provided via an online portal to facilitate the process of data gathering. The survey was sent to or handed in to 250 employees who agreed to take the survey, however only 120 filled the surveys and sent them back which make the response rate 48%. Sixty one percent of the sample were females, 38% were males while 9% did not report their gender with an average of 30 years old and an average years of experience of 7. Around 19% came from human resources management department, 9% from marketing, 15% from finance, 10% from audit, 9% from quality, 9% from sales, and finally 42% from other departments like information technology, consultancy and teaching. So jobs were diversified and classified under different sectors which is essential for research on work characteristics (see Morgeson & Humphrey, 2006). Forty two of participants hold a bachelor degree while 23% hold a masters degree and 2% holds a PHD. As for the career level, 26% were from an entry level, 60% from middle level and 6% from top level.

Measures

All instruments used in this field study are published and standardized measures. Participants will be asked to indicate the extent to which they agree to the statements. All measures will use a response scale in which 1 is "strongly disagree" and 6 is "strongly agree".

Psychological capital

Positive psychological capital will be measured using the PsyCap questionnaire. The PsyCap questionnaire was developed by Luthans and colleagues (2007b). Results of their study provided psychometric support for a new PsyCap survey designed to assess the four facets or constructs, as well as a composite factor. Researchers (Luthans et al., 2007b) have selected the four scales for each of the four positive constructs based on certain selection criteria. That is, the scale is reliable and valid, applicable to the workplace, and is capable of measuring the state-like capacities that make up the PsyCap. According to the above-mentioned criteria, the scales that are used are (1) hope (Snyder et al., 1996), (2) resilience by Wagnild & Young (see Luthans et al., 2007b), (3) optimism (Scheier & Carver, 1985), and (4) self-efficacy (Parker, 1998).The researchers selected the best six items from each scale and so reached agreement on the 24 items that make up the PsyCap questionnaire.

The Cronbach alphas across studies on PsyCap conducted by Luthans et al (2007) show support for the reliability of each of the four facets and for the overall PsyCap as follows: hope (.72-.80), optimism (.69-.79), self-efficacy (.75-.85), resilience (.66-.72), and PsyCap (.88-.89). Sample items included: (a) self-efficacy: "I feel confident analyzing a long-term problem to find a solution" and " I feel confident helping to set targets/goals in my work area", (b) hope: "I can think of many ways to reach my current work goals" and "There are lots of ways around any problem", (c) resilience: "I usually take stressful things at work in stride" and "I feel I can handle many things at a time at this job", (d) optimism: "If something can go wrong for me work-wise, it will" and "I always look on the bright side of things regarding my job". For the current study, the Cronbach alphas were as follows: hope (.66), optimism (.60), self-efficacy (.80), resilience (.56), and PsyCap (.688) after items deletion. Reliability coefficients around .90 are considered to be "excellent", values approximately .80 as "very good", and values around .70 as "adequate" (Pallant, 2007). To increase the reliability of the hope scale two items that showed negative or very low intercorrelations were deleted. The Cronbach alpha for the new hope scale increased to .73. For resilience, two items were deleted where

the Cronbach alpha then increase to .64. For optimism, Cronbach alpha increased to .77 after deletion of the reversed items that has negative correlations with other items.

Work Characteristics

Work characteristics were measured using the Work Design Questionnaire (WDQ) by Morgeson & Humphrey (2006) where only task characteristics and knowledge characteristics were used. Sample items are for example, "The job allows me to make my own decisions about how to schedule my work" (work scheduling autonomy), "The job provides me a chance to completely finish the pieces of work I begin" (task identity), " The job itself provides feedback on my performance" (feedback from job), and " The job requires that I engage in a large amount of thinking" (information processing). Cronbach alpha for work characteristics dimensions were as follows: autonomy (.90), task variety (.80), task significance (.83), task identity (.83), feedback (.82), information processing (.88), problem solving (.73), skill variety (.88), specialization (.80), and job complexity (.84).

Engagement

Engagement was measured using the survey by Rich and colleagues (2010). Sample items included "I exert my full effort to my job" (physical engagement), "I am enthusiastic in my job" (emotional engagement), and "At work, I focus a great deal of attention on my job" (cognitive engagement). Internal consistency for engagement was .72.

Personal Initiative

Personal initiative was measured with a seven-item scale from Frese and colleagues (1997). This measure was also used in other studies (e.g., Ohly, Sonnentag, & Pluntke, 2006; Sonnentag, 2003). Sample items included "I actively attack problems" and "I take initiative immediately even when other don't". Cronbach alpha for PI was .85.

Innovative Behavior

Innovative behavior was measured using the questionnaire by Ohly, Sonnentag, & Pluntke (2006) that is based on Zhou & George (2001) creativity rating. Sample items are "I often implement my new and innovative ideas" and "I implement new ways to achieve goals or objectives". Cronbach aloha for innovative behavior was .84.

Creativity

Creativity was measured using the creativity questionnaire by Tierney et al., (1999). Items include "I generate ideas revolutionary to our field". The item "I tried out new ideas and approaches to problems" was omitted because it targets the implementation of ideas and so might overlap with innovation (see Ohly et al., 2006). Cronbach alpha for creative behavior was .81.

Strategic attention

Strategic attention was determined with eight items inspired by the work of Bumingham and West (1995) and developed by and used in a study by Jong and Kemp (2003). Items included "my company always strives to deliver the "newest" and "hottest" services to its customers" and "my company is willing to finance innovative activities". Cronbach alpha in the current study was .93.

Supportive climate

Supportive Climate was measured with an eight item scale based on Anderson and West (1998). Sample items included "people in my work always look for fresh, new ways of looking at problems" and "people in my work are open and responsive to change". Cronbach alpha in the current study was .90.

Satisfaction

Job satisfaction was measured using the job satisfaction scale by Brayfield and Rothe (1951). Sample items include “Most days I am enthusiastic about my work” and “I feel fairly satisfied with my present job”. Cronbach alpha was .44 which is very low so we had to delete the two reversed items as they showed negative inter-correlations with other items. Cronbach alpha increased to .75 after deleting the two items and so we formed a new scale for satisfaction that did not include the two items.

Control variables were additionally measured to account for influences of third variables as previous research showed that job experience, education, and gender are related to creative and proactive outcomes (Scott & Bruce, 1994; Sonnentag, 2003; Tierney et al., 1999). These control variables included age, gender (female or male), career level, years of experience and educational level.

RESULTS

Correlational Analyses

As shown in table 1, the correlational analysis provides support for all hypotheses. Innovative behavior was found to relate positively to the two suggested outcomes of satisfaction ($r = .43$) and engagement ($r = .54$). Creative behavior was found to relate positively to innovative behavior ($r = .56$). PsyCap as a core construct as well as its four components were found to relate positively to innovative behavior. Further, a comparison of the correlation coefficients of PsyCap and its four components indicates that hope bears the strongest relationship to innovative behavior with $r = .56$, as compared to self-efficacy ($r = .46$), resilience ($r = .19$), optimism ($r = .20$) and PsyCap ($r = .50$). As for work characteristics, positive significant relationships were found between task characteristics and innovative behavior ($r = .54$) and between knowledge characteristics and innovative behavior ($r = .41$). As shown, a positive significant relationship ($r = .54$) was noted between personal initiative and innovative behavior. That is, the higher the employees' personal initiative, the higher their innovative behavior will be. Significant positive relationships were also noted between supportive climate and innovative behavior ($r = .32$) and between strategic attention and innovative behavior ($r = .30$). Finally, as seen in table 1.1, innovative behavior was found to be positively related to all work characteristics with the exception of work complexity, it was found to be negatively related to it.

Regression Analysis

Hypothesis 1 was that employees' level of innovative behavior would be positively related to their satisfaction and engagement. For these analyses we used hierarchical regression where the covariates of age, educational level and gender were entered into step 1 and innovative behavior was entered in step 2.

Table 1. Intercorrelations of the main study variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1 Years of experience	1																			
2 Department	.142	1																		
3 Gender	.089	-.100	1																	
4 Educational degree	.468	.144	.151	1																
5 Age	.991	.180	.012	.412	1															
6 Career level	.250	.239	.002	.309	.230	1														
7 PsyCap	.000	.051	-.007	.018	-.016	.140	1													
8 Optimism	-.136	.047	-.047	-.108	-.138	-.103	.584	1												
9 Self-efficacy	.131	.088	.003	.217	.113	.169	.822	.214	1											
10 Hope	-.138	.073	.075	-.060	-.148	.188	.742	.268	.517	1										
11 Resilience	.071	-.083	-.056	-.097	.059	.115	.741	.349	.463	.412	1									
12 Creativity	.002	-.007	-.207	-.244	.007	.082	.571	.361	.392	.590	.348	1								
13 Work characteristics	.023	.217	-.083	.037	.014	.143	.591	.278	.516	.446	.421	.452	1							
14 Supportive climate	-.027	-.037	-.182	.084	-.034	.175	.385	.224	.254	.362	.308	.421	.461	1						
15 Strategic attention	-.015	.077	-.146	-.098	-.012	.132	.471	.299	.377	.386	.303	.448	.465	.631	1					
16 Personal initiative	.036	-.021	-.087	-.170	.032	.114	.690	.386	.533	.557	.506	.543	.470	.325	.315	1				
17 Innovative behavior	-.188	.010	-.168	-.015	-.188	-.013	.507	.200	.469	.568	.199	.566	.612	.326	.301	.545	1			
18 Satisfaction	-.029	.092	-.109	.047	-.026	.015	.219	.143	.162	.359	-.023	.377	.406	.504	.489	.137	.433	1		
19 Engagement	-.117	.165	-.106	.091	-.114	.069	.399	.240	.327	.448	.140	.343	.557	.286	.281	.465	.545	.645	1	

Note. $N = 108$; $r > .04$, $p < .10$; $r > .12$, $p < .05$; $r > .16$, $p < .01$; $r > .20$, $p < .001$

Table 1.1 Correlations of work characteristics

	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Autonomy	1												
2 Task variety	.490	1											
3 Task significance	.508	.455	1										
4 Task identity	.564	.568	.553	1									
5 Task feedback	.507	.402	.479	.625	1								
6 Information processing	.303	.371	.312	.354	.299	1							
7 Problem solving	.461	.433	.519	.400	.313	.529	1						
8 Skill variety	.372	.389	.483	.376	.402	.478	.655	1					
9 Specialization	.287	.266	.168	.296	.387	.508	.420	.473	1				
10 Innovative Behavior	.512	.475	.453	.359	.277	.411	.428	.363	.328	1			
11 Task characteristics	.917	.689	.711	.770	.685	.391	.540	.482	.338	.544	1		
12 Complexity	-.109	.011	-.231	-.104	-.174	.139	-.145	-.056	-.084	-.204	-.142	1	
13 Knowledge characteristics	.358	.421	.329	.369	.344	.801	.708	.749	.678	.410	.445	.348	1
14 Work characteristics	.822	.678	.649	.724	.656	.620	.695	.665	.529	.612	.923	.046	.755

Note. $N = 108$; $r > .04$, $p < .10$; $r > .12$, $p < .05$; $r > .16$, $p < .01$; $r > .20$, $p < .001$

The purpose was to see the independent effects of innovative behavior on both satisfaction and engagement. As seen in table 2, when entering innovative behavior into the regression model, it predicted significant variance beyond the covariates. In both cases, the model in step 2 shows innovative behavior related positively with engagement ($\beta = .52, p < 0.001$) and satisfaction ($\beta = .42, p < 0.001$). Therefore, there was full support for Hypothesis 1. Hypotheses 2 till 7 predicted a positive relationship between creative behavior, PsyCap and its components, work characteristics, personal initiative, strategic attention and supportive climates as antecedents to innovative behavior and innovative behavior. As shown in table 3, creative behavior predicted innovative behavior ($\beta = .56, p < 0.001, R^2 = .32$), satisfaction ($\beta = .37, p < 0.001, R^2 = .14$), and engagement ($\beta = .34, p < 0.001, R^2 = .11$) whereby relationships with satisfaction and engagement were tested for mediation model purposes that will be explained later. Therefore, hypothesis 2 that is creative behavior predicts innovative behavior is supported.

As evident in table 3, PsyCap as well as its four components predicted innovative behavior whereby hope ($\beta = .56, p < 0.001, R^2 = .32$) explained the greatest variance in innovative behavior. Therefore, hypotheses 3.1 and 3.2 that PsyCap as well as its four components of hope, optimism, PsyCap, and resilience predicts innovative behavior is supported. Further, relationships between PsyCap and its four components with satisfaction and engagement were also examined for the purpose of testing for the mediation effect of innovative behavior later on. As can be seen in table 3, only hope and PsyCap showed significant relationships with satisfaction while for engagement, PsyCap and its components except for resiliency were found to be related to engagement.

TABLE 2
REGRESSION ANALYSES WITH COVARIATES

	Job Satisfaction		Engagement	
	Step 1	Step 2	Step 1	Step 2
	β	β	β	β
Age	-.06	.038	-.19	-.06
Gender	-.12	-.044	-.13	-.03
Educational Level	.091	.045	.18	.13
Innovative Behavior		.43***		.52***
Change R ²		.17***		.25***

$p > 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

As for hypotheses 4.1 and 4.2, significant positive relationship was found between work characteristics and innovative behavior ($\beta = .61, p < 0.001, R^2 = .37$) which provides preliminary support that work design dimensions of task and knowledge characteristics relates positively to innovative behavior. However, in separate models, hypotheses 4.1 and 4.2 were fully supported where 26% of the variance in innovative behavior was explained by autonomy, 22% by task variety, 20% by task significance, 12% by task identity, and 7% by job feedback. Moreover, 16% of the variance in innovative behavior was explained by information processing, 18% by problem solving, 4% by complexity, 13% by skill variety, and 10% by

specialization. Hypothesis 5 was supported where personal initiative predicted innovative behavior ($\beta = .54, p < 0.001, R^2 = .29$).

Hypothesis 6 was also supported where supportive climate was found to predict innovative behavior ($\beta = .32, p < 0.001, R^2 = .10$). Finally, hypothesis 7 was supported where positive relationships were found between strategic attention and innovative behavior ($\beta = .30, p < 0.001, R^2 = .09$). As for satisfaction and engagement, PI was not related to satisfaction but related to engagement while strategic attention and supportive climate were found to be positively related to engagement and satisfaction.

TABLE 3
REGRESSION ANALYSES: PSYCAP AND CREATIVITY AND LIFE SATISFACTION

	Innovative Behavior		Satisfaction		Engagement	
	β	R2	β	R2	β	R2
Creative Behavior	.56***	.32***	.37***	.14***	.34***	.11***
Optimism	.20*	.04*	.14	.02	.24*	.05*
Hope	.56***	.32***	.35***	.12***	.44***	.20***
Self-efficacy	.46***	.22***	.16	.02	.32**	.10**
Resilience	.19*	.04*	-.02	.001	.14	.02
PsyCap	.50***	.25***	.21*	.04*	.39***	.16***
Work characteristics	.61***	.37***	.40***	.16***	.55***	.31***
Personal Initiative	.54***	.29***	.13	.01	.46***	.21***
Supportive Climate	.32**	.10**	.50***	.25***	.28*	.08*
Strategic Attention	.30**	.09**	.48***	.23***	.28*	.07*

$p > 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Further Analysis

A hierarchal regression model was created where innovative behavior was regressed on all proposed antecedents based on the beta values given in table 3 where work characteristics was entered after covariates then creative behavior and hope followed it. So in step 2, work characteristics was entered to test the additional variance in innovative behavior that could be explained by work characteristics. Then creative behavior was entered in step 3. As shown in table 4, 36% ($p < .0001$) of the variance in task performance could be explained by work characteristics in model 2 while in model 3 creative behaviors added an additional 13%. However, hope and personal initiative were not found to explain any additional variance in the models 4 and 5. The five models are shown in table 4. All 9 models built were significant. However,

in the last model were all antecedents were entered; only work characteristics, personal initiative, creative behavior and hope along with the covariate of educational degree accounted for the variance in innovative behavior. Therefore, we can conclude from this model that work characteristics, creative behavior, hope and personal initiative are the strongest antecedents of innovative behavior. Finally, since creative behavior and hope showed the same beta values in table 3, we repeated the same models but with hope preceding creative behavior, however the same results were found were hope did not add significant variance in model 4. Finally, it is worth mentioning that another model was built where all covariates were entered in step 1 and then all antecedents were entered in step 2 whereby the only variables that showed significant positive relationships to innovative behavior were years of experience, educational degree, age, optimism, creativity, autonomy, complexity and personal initiative. Job autonomy was the strongest predictor.

Finally, regressions were performed to assess whether innovative behavior mediates the relationship between its antecedents and engagement and satisfaction. Following the guidelines of Baron and Kenny (1986), this analysis requires to assess whether the predictor variables (antecedents) predicts the outcome variables (satisfaction and engagement). Second, the predictor variables need to predict the mediator (innovative behavior). Third, the mediator must predict the outcome variable. Finally, if there is a mediator effect, the regression coefficient of the predictor on the outcome should decrease when controlling for the mediator. A significant positive relationship emerged between all antecedents and life satisfaction except for optimism, self-efficacy, resilience and PI. PsyCap was found to predict satisfaction and so we included PsyCap as a higher order and ignored the four components and also PI. Innovative behavior was found to predict satisfaction ($\beta = .43, p < .0001$). Finally, when controlling for innovative behavior, the regression coefficient for PsyCap it decrease from .21 to -.002 and became non-significant and the Sobel test of partial mediation was significant ($z = 3.76, p < .0001$). For creative behavior it decreased from .37 to .19 and the Sobel test of partial mediation was significant ($z = 2.76, p < .01$).

As for work characteristics, it decreases from .40 to .22 and the Sobel test of partial mediation was significant ($z = 2.61, p < .01$). For supportive climate, it decreased from .50 to .40 and the Sobel test of partial mediation was significant ($z = 2.7, p < .01$). For strategic attention, it decreased from .48 to .39 and the Sobel test of partial mediation was significant ($z = 2.44, p < .05$). Therefore we can conclude that innovative behavior partially mediates the relationship between work characteristics, creative behavior, PsyCap, supportive climate, and strategic attention and satisfaction as an outcome. As for engagement, all antecedent variables including PsyCap were found to predict engagement except for resiliency. All antecedents were also found to predict innovative behavior (see table 3). Innovative behavior was also found to predict engagement. Finally, when controlling for innovative behavior, the regression coefficient for PsyCap decreased from .39 to .166 and became non-significant, and the Sobel test was significant ($z = 3.84, p < .0001$). For creative behavior, it decreased from .34 to .05 and became non-significant where the Sobel test was significant ($z = 4.1, p < .0001$). For work characteristics, it decreases form .55 to .28 and the Sobel test was significant ($z = 3.14, p < .001$). For personal initiative, it decreased from .46 to .23 and the Sobel test was significant ($z = 3.67, p < .0001$). For strategic attention it decreased from .28 to .12 and became non-significant where the Sobel test was significant ($z = 2.94, p < .01$). For supportive climate it decreased from .28 to .12 and became non-significant where the Sobel test was significant ($z = 3.11, p < .01$).

TABLE 4
REGRESSION ANALYSES: INNOVATIVE BEHAVIOR ANTECEDENTS WITH
COVARIATES

	Innovative behavior				
	Step 1	Step 2	Step 3	Step 4	Step 5
	β	β	β	β	β
Age	-.91	-.055	.83	.516	.41
Gender	-.23	-.117	.011	-.065	-.07
Educational level	.065	.10	.308	.260*	.26
Years of experience	.71	-.16	-1.18	-.64	-.64
Career level	.001	-.77	-.112	-.15	-.15
Work characteristics		.614***	.42***	.42***	.42***
Creative behavior			.45***	.33**	.33**
Hope				.23	.31*
Personal initiative					-.139
Change R2	.077	.36***	.13***	.02	.007

DISCUSSION

This study is the first attempt to examine the relationship between innovative behavior and engagement and satisfaction. It is also the first to examine PsyCap and the constructs of hope, resilience, optimism, and self-efficacy as predictors for innovative behavior. This study examined relationships between innovative behavior and positive outcomes of engagement and satisfaction as well as the antecedents of innovative behavior. Results revealed that innovative behavior is positively associated with engagement and satisfaction. As predicted, all antecedents were found to predict innovative behavior where work characteristics were found to be the greatest predictor and autonomy was found to be the strongest predictor among all work characteristics. However, contrary to our expectations, job complexity was found to be negatively related to innovative behavior. That is, the more complex the job is, the lower the innovative behavior. The results showed that understanding innovative behavior should be from multiple perspectives, a motivational perspective where we examined work design and PsyCap, an organizational perspective where we examined how employees perceive the support of their organizations and how they are alert about

the strategic direction of the organization, and finally a creative perspective where we examined both creative behavior and PI as a first step to innovative behavior.

As mentioned, contrary to expectations, we found a significant yet negative effect of job complexity on innovative behavior. One possible explanation is the type of industry or work examined in the current study. Some jobs when are complex tend to cause de-motivation for employees so they are not likely to innovate. Though job complexity was found to be related to creative and innovative outcomes (Oldham & Cummings, 1996; Tierney & Farmer, 2002), routinization, which is sometimes seen as the opposite of complexity was also found to increase creative and proactive outcomes (Ohly et al., 2006).

Though previous research showed that engagement predicted innovative behavior, no research examined whether innovative behavior predicted engagement. The finding of this study is unique and is a major contribution to research in innovation and positive psychology. Since engagement is a core positive psychology topic (Seligman 2002a, 2002b), it is essential to know what are its antecedents and how to develop it. This also adds to the research on creativity and flow and the argument by Csikszentmihalyi (1997, 2002) that creative achievements lead to a happier and meaningful life. Though creativity and engagement are two major topics in positive psychology, the link between them was not emphasized on. Besides, research on innovation lack the impact of innovations on other psychological aspects of employees that could in turn increase the overall performance of the organization (see Rich et al., 2010).

This study also adds to several fields by focusing on antecedents from different aspects. On the psychological level, the current study is the first to examine the link between PsyCap and innovative behavior. The current findings are consistent with the findings by Sweetman and colleagues (2011) where PsyCap was found to predict creative performance. For optimism, the finding is in line with what Seligman (2006) proposed that optimists tend to be imaginative and come up with new ideas as they are visionary. For hope, the findings are in line with research on goals and their importance in actions (Frese & Zapf, 1994). For self-efficacy, though no research examined self-efficacy and innovative behavior before, the current finding goes in line with the study by Tierney and Farmer (2002) that showed that there is a positive relationship between creative self-efficacy and creative performance. Self-efficient employees are more confident about the task in hand (Barron & Harrington, 1981) and so are more likely to take risks and innovate new ideas. Finally, the innovation of a new product or service indeed requires many trial and errors where an employee or a group of employees face many challenges and problems. Therefore, the ability to bounce back or resiliency is needed. The current finding goes in line with the argument by Amabile (1996a) that creativity needs persistence in the face of challenges.

On the psychological or creative related aspect and as expected, PI and creative behavior were found to predict innovative behavior. The finding was expected and is in line with other research studies of creative behavior (Amabile, 1988; Madjar, Oldham, & Pratt, 2002) and PI (Baer & Frese, 2003; Hakanen et al., 2008). The current study offers theoretical contribution that scholars argued is needed (Rank et al., 2004). That is, studying the antecedent of innovative behavior. The current study also is the first to assess innovative behavior in an Arab country. Little attention has been devoted to international and cultural issues related to creativity and innovation. Though individualistic culture is more likely to influence innovation and creativity, the current study also provides support that collectivistic cultures could also influence innovation. Collectivistic cultures, where Egypt is considered to be one, are those whose individuals are "integrated into strong, cohesive ingroups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty" (Hofstede, 1998, p. 26).

Supportive climate for innovation was found to predict innovative behavior. This finding is consistent with the study by De Jong and Kemp (2003). This finding supports the expectation s products. Finally, strategic attention finding is also in line with the study by De Jong and Kemp (2003) which suggests that the degree to which the organization is aligned with innovation in its strategic direction would be reflected on the degree to which employees would innovate. This finding adds to the theory on innovative behavior and also has its implication on strategic management and Posrter's theory of strategy (Porter, 1991, 1996) and how a firm could affect a competitive edge through human resources practices. Our finding suggests that the degree to which the employees are attentive to the innovation strategy of the organization determines whether they will implement new ideas for products and services or not.

Implications, Limitations and Future research

Finally, our findings extend the literature on innovative behavior and add to the practical field in several ways. First, this study is the first to combine PsyCap with innovative behavior. The results suggest that positivity at the workplace promotes innovation which brings together the two fields of positive psychology or POB and innovation. Though optimism and creative self-efficacy were found to predict innovative behavior of students (Li & Wu, 2011), research on positive constructs like optimism, hope or happiness in relationship to innovation at the organizational level has been rare. Future research should start paying more attention to positive constructs in relationship to more strategic or innovation management constructs. Though we did not measure innovation, we measure the implementation of new ideas and processes which will be reflected in innovation at the end of the day. Future research should then investigate the impact of positivity in the workplace on innovation process itself. For example, the link between creativity and flow has been highlighted (Csikszntmihalyi, 1997, 2002), however, research on flow and innovation at the organizational level has not been examined yet. This finding also has some practical implications for human resources whether in terms of training or recruitment. As highlighted by Seligman (2006), sales people who were recruited according to their level of optimism were more likely to get more sales and were better sales people where they were less likely to be frustrated from clients rejecting them and were more able to explain negative situations in terms of temporal, impersonal and specific explanations (see also Seligman 1995; 2002a). So if optimism could be measured and if it leads to more innovative behavior which in turn should lead to more innovations and so better overall performance, the human resource management should pay attention to such selection tools that include some positive psychological tests for optimism or other related constructs like hope, self-efficacy and resilience. These assessments could also be used to evaluate employees after being trained on relevant trainings related to these psychological capacities. Human resources management should also the performance to such capacities in a way that employees are encouraged to stay positive and spread positivity rather than negativity. The current study also added to positive psychology by examining innovative behavior as an antecedent to engagement, one very important topic in positive psychology (see Seligman, 2002a, 2002b). Research that linked the implementation of new ideas and products to engagement has been rare. Though engagement in the current study was relevant to work, it still gives insight into the engagement of life in general and still work engagement is a very crucial topic in positive psychology. Finally, the study is the first to examine innovative behavior as a predictor to satisfaction where previous studies examined the impact of satisfaction on innovative behavior (Bysted, 2013; Han-Jen, 2014). These two findings also have important practical implication for human resources management people and also for consultancy firms. Engagement has been a main competency and main service for giant consultancy firm like Hay group where models of antecedents of engagement and satisfaction are built so as to determine what fosters engagement and decreases intentions to leave (see <http://www.haygroup.com/ww/>; see also Masson, Royal, Agnew, & Fine, 2008). Therefore, the current studies shed light in the importance of innovative behavior in building engagement models that aim at increasing satisfaction and engagement as well as decreasing intentions to leave and turnover.

Second, though previous research linked creativity to firm innovation (Amabile, 1996; Amabile, 1988; Madjar et al., 2002) and proactive personality to innovation and entrepreneurial activity (Parker, 1998; Crant, 1996), our study is unique in that it links creative behavior and PI to innovative behavior. Besides, organizational leaders and managers should pay attention to PI and creativity when building assessment centers for recruitment and also in employee development and training. Third, as highlighted above, the study contributes to the theory of strategy and innovation in that it links strategic attention which is about how employees think their company pays enough attention to innovation in its strategy, mission and vision. In Porter's strategy theories (see Porter, 1991; 1996), focus of organizations is on either innovation or cost or a combination of both. This study provides insight into the alignment between the organizations' strategic direction and how it could be implemented. If a company's main strategic direction is to innovate, then employees should see this in their mission, vision and strategy and be supported to do innovate so that innovations would occur at the end of the day. Finally, a company that seeks innovations should support its employees with all necessary tools to innovate.

As for work design, the current study adds to the job characteristics theories (Hackman & Oldham, 1980; Morgeson & Humphrey, 2006) by examining the role work design plays in innovation or the implementations of innovative ideas. As discussed, job characteristics theory suggested that for positive outcomes like motivation, satisfaction and performance to occur, certain dimensions should be found in a job. These dimensions would result in certain states that in turn affect the outcomes. This study suggests that the way the work is designed would affect the employee's ability to innovate. However, like any study, the current study had limitations.

First, causal inferences that the antecedents of innovative behavior causes it and that it in turn causes engagement and satisfaction cannot be made. We depended on existing theory and prior research to describe and build a framework for our hypothesized relationships. However, the direction of the relationship cannot be determined without creating sequential precedence and experimental manipulations. In other words, the direction of the causality has not been established and the possibility of other alternative hypotheses (e.g., high engagement leads to high innovative behavior) cannot be ruled out.

In addition, common method variance within and between independent or dependent variables may lead to artificially high correlations (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Since some variables showed strong correlation, common method bias could have impacted the pattern of results. However, it is important to note that for the surveys that were handed in and not the online; the filing of the questionnaire was distributed in 2 different days which can potentially reduce the common method bias limitation. Further, to minimize common method bias, variables were measured on different levels of specification (Podsakoff et al., 2003). For example, work characteristics were assessed as stable features of jobs while creative and innovative behaviors as the general tendency to engage in the behavior.

Finally, the sample size in the current study is relatively small and specifically in relation to the variables included in the model. One reason for that might be the length of the questionnaire since it measured many variables. However, again we tried to solve this issue by dividing the questionnaire into two parts. One other reason is the unawareness of research importance in Egypt and the fact that companies are not willing to cooperate for research and are more concerned about confidentiality issues. Therefore, future research should focus on replicating the same model with larger sample.

To conclude, the current study not only suggests the seeming value of employees' psychological capital at all levels within organizations, but also other antecedents to innovative behavior as well as outcomes of engagement and satisfaction. The antecedents examined here provide a framework for investing in employees' capacities as well as company resources to be able to compete in the current turbulent environment.

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**Sustaining Competitive Advantage:
MNC Issues in Innovation -- Taxonomies and Measures**

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ABSTRACT

This paper proposes a model for evaluating innovation in multinational corporations, by assessing literature in the realm of innovation and identifying gaps and ambiguity in innovation analysis. Further, the paper organizes an approach for improved research by illustrating that innovation is not simply a firm-wide attribute, but is managed within distinct value chain processes of the enterprise. When one states that a firm is innovative, one could potentially and incorrectly be suggesting that the value of innovation is embraced and formalized across all activities and mechanics of the specific firm. The primary focus of this paper is to not only organize the strands of literature and the various themes into a cohesive set of research areas in international business, but to create a taxonomical and holistic framework. This framework can be employed by researchers and practitioners in the analysis of the multinational corporation (MNC) and its associated strategy. Innovation means many things to many people; this paper recommends more clarity in contextualizing innovation relative to the business activities within a firm.

Keywords: innovation, value chain, MNC strategy, competitive advantage, innovation taxonomy

INTRODUCTION

Innovation taxonomies and measures are not often situated along a comprehensive framework for study. In international business, the concept of an “innovative firm” implies that innovation is instituted in all parts of the firm’s value chain. This is not necessarily the case; innovation as a concept is ambiguous unless it is explicitly contextualized.

The study of competitive advantage and the means by which one can sustain the advantage has been the foci of much research. The changes in industry dynamics and environment have caused a rethinking of strategic planning and strategic core competencies; the speed by which change in industry has occurred, and is occurring, now challenges strategies that may not have the durability to last many years. Innovation is touted as the primary means of sustaining a competitive advantage, yet the concept of an innovative firm does not necessarily equate to innovation throughout all aspects of the firm’s value chain.

Instituting innovation in a firm and managing the goals of innovation are even more complex in the international stage. Consider Mascarenhaas (1989) who references Stobaugh (1988), “Astonishingly, at times, over 100 years elapse between a product’s invention and its commercialization.” Stobaugh’s book was written in 1988, concerning the global petrochemical industry, a far different world than 2015. And of course, he is considering the means by which invention can be mass produced and commercialized. But the ability to bring product to market and to advance corporations have been electrified by the factors of disruptive change, elevated by technology and information networks.

The forces of competition are expedited under the ubiquitous information age, provoking imitation and providing consumers the ability to switch providers rapidly. Thus, firms must now leverage their endogenous capabilities and be prepared to adjust their operations, their products, and their supplier engagements in an accelerated fashion. The firm requires differentiation in the marketplace, not just in cost but in customer services and customer offerings. Imitability precludes differentiation. Further, as

switching costs for consumers become less burdensome, due to market competition, firms are challenged for customer retention. The retention value cannot be managed via cost differentiation itself, particularly as commoditization and global supply chains reduce margins and drive consumer prices downward. Firms must innovate constantly in the face of accelerating environmental and industrial changes.

To adapt to these expedited competitive pressures, firms require innovation as an embedded and cultural construct – embedded into the business processes of the firm, and embedded into the behaviors and value system of the firm. Innovation can apply to the entire value chain in the organization, including innovation in product design, service delivery, organizational architectures and even operations. (While the discipline of operations is equated with repeatability and sameness in order to deliver quality without faults, innovation nevertheless still applies, such that operational transformation is as critical as incremental continuous improvement.)

The literature and research in innovation is extensive and multi-dimensional. Innovation studies encompass product development, organizational architecture, firm performance, human capital performance, service delivery, and all manner of business processes within the company (Jansen 2005). When one considers innovation in the context of international business strategy, the avenues of thought, analysis and study are virtually infinite, from the applicability of competitive advantage to the study of comparative advantage and institutional dynamics. Those varied concepts are only starting points, origins that ripple in thousands of directions. This is long before one even considers measurements of firm success. While efficacy of innovation is the practitioner's objective and the researcher's science, innovation efficacy cannot be understood without metrics. Metrics cannot be applied without an organized taxonomy.

From this perspective, this paper aims to survey and draw upon the literature regarding innovation and its drivers, and then organize a means of applying innovation research within a structured, contextualized mode for international business. This includes discussion of the major factors influencing international business innovation and the means by which innovation is defined and how it is (or can be) measured. By providing a taxonomical approach for contextualizing innovation, and applying the discipline to various parts of the value chain, there is potential for developing a robust model that can guide the assessment of innovation in countries and in MNCs.

As a foundation, this paper shall briefly review the state of sustainable competitive advantage study, which was originally viewed from a business perspective, and which can be extended to an international business perspective. From these findings, which highlight the necessity and power of innovation, the literature on competitive advantage is cited, including the premises of Porter, Barney (2001, 2011), Christenson (2004, 2012), Downes and Nunes (2014), and McGrath (2013). The literature analysis is then extended, made applicable to MNCs, illustrating the means by which firms apply innovation, and how various institutions have measured innovation.

LITERATURE REVIEW

If disruption is a standard expectation in current business, then innovation is a prerequisite for success. Douglas and Rhee (1989) extended the findings of competitive strategy outside of US businesses, and they employed similar strategic dimensions. I shall use the assumption that the multinational environment also faces disruptive pressures, due to speed of change, and multinational firms must embrace innovation as a core competency. An additional challenge for practitioners, as well as researchers, is the institutional

dimension – the very component that underpins the concept of nation state which, by definition, makes the business strategy an international business strategy.

As innovation spans a number of disciplines, the primary objective in this paper is to create an overall structural taxonomy for innovation in research and application, by reviewing various literature, and evaluating the measures that have been used to assess the concept, and capture the factors that influence the very act of being innovative. It is critical to determine whether the innovation characterization is applicable to verticals, country factors and internals of the enterprise; for example, innovation is associated with product functionality, sometimes evolution of designs, new features and price points. Innovation applies to the marketing aspects, and this goes beyond a simple decision as to media types per country. Innovation in marketing covers new approaches in branding, new means of presentation under a plethora of delivery models – static web; social media; and legacy approaches. When the term innovation is used, even when qualified to the Marketing discipline, there still exists ambiguity as to where the innovation is mechanized in the firm's value chain. Calling a firm "innovative" is a generalization which does not necessarily reflect the strategies and activities of all value chains in the enterprise. This is another example where innovation must be focused and managed according to the competencies that pertain to a specific discipline. Innovation can mean many things to many people, depending upon their perspectives and accountabilities in the firm.

Firm -- Innovation in the Value Chain

Hooley et. al. (1995) analyzed the impact of FDI on marketing resources by focusing on Hungary. As Hungary privatized its industries, the discipline of innovation was encouraged, pursuant to the firms' self-reliance, and for the development of internal and external competitive robustness. As markets were opening in that country, firms were driven to innovate, not only to survive as private entities, but also to face new competitive pressures that were a byproduct of the new political and business framework introduced in the country. But there are as many attributes and applications for innovation as there are processes within a firm; these different processes are often perceived as different constructs depending on departmental responsibility. The reference here to "departmental" is equivalent to "functional", managed by accountable supervisors with expertise within the specific functionality.

Innovation is affected by a variety of contexts (Gakure and Waithaka 2012), with substantial factors influencing the firm, as well as affecting organizational innovation (Coombs 1996). Previously, Damanpour (1991) identified factors which affect the management of innovation: type, stage and scope. "Different sectors e.g. scale intensive and science intensive have different priorities and characters. Likewise different stage in organization life cycle may affect the type of innovation; for example new technology industry may be more involved in experimental innovation and matured industry players may be involved in exploitative innovation." To Damanpour's point, sector is a factor, but within all sectors lies additional granularity and cross-functional uniqueness. Although an MNC can exist in a sector that is considered innovative, such as Technology, the internal processes and departments may not necessarily be innovating as part of their value chain contribution.

Country cultures, due to their differentials in institutions, may also influence the nature of innovation under the implementation of specific policy requirements. A culture which supports creativity consolidates the platform for the innovation, be it management innovation or product innovation. The means for embedding innovation is through values and company culture, extensively held and shared cultural norms in the organization, which actively promote generation of new ideas and new ways of implementing the work (Gakure and Waithaka 2012).

A consistent theme in innovation is acquisition and management of knowledge; this knowledge can be built via partnerships, internal efforts, and the MNC's supply chain itself. However, considering the networks of information, the supply chain must be examined as both an inhibitor to differentiation as well as a driver. Alliances within the supply chain provide new resources to assist in streamlining production processes and advances in inventory management, delivery, distribution, and even marketing. Richard Lamming models supplier relationships in global competition to illustrate the ideals of innovation and the leveraging of partnership models (Richardson 1994). This also emphasizes another area where innovation can have its own connotations. In fact, there are ambiguities even when isolating the discussion to a certain business discipline. "There is an unfortunate ambiguity left unresolved by Lamming...The reader must decide whether they are referring to the Japanese lean supply model of subcontracting, and what Lamming calls the partnership model; Lamming's model for lean supply adds to the older model and provides a strategic choice for suppliers more than the assemblers." (Richardson 1994) Without derailing the topic at hand, this citation identifies a challenge in the innovation research arena as well. Innovation has been applied to every value chain effort, including strategy. But there does not seem to be a taxonomical study as to how innovation applies to specific intra-firm competencies. For example, what attributes of innovation are applicable to Marketing, including their tactical creative approaches vs. Operations, which is typically measured by its rigor and repeatable processes, assuring consistency via a closed and tightly monitored workflow?

Gueringer (1992) highlights the objectives of innovation from two avenues – (1) organizational innovation for restructuring and adapting to a more competitive international world, and (2) transformation of existing production and engineering methods for quicker response and proper timing. "The overall objective is to establish a foundation for successful and sustained innovation." Note, however, that Gueringer's review does not mention product innovation. Thus, there are at least three innovation streams, including the product/service output (directed at the customer), the organization, and the operations.

Miles and Snow (2003) provide a typology for three successful strategic types based on four industries: defenders, prospectors, analyzers, reactors. This may provide a means for distinguishing innovation attributes according to verticals. They found that high levels of performance corresponded to broad market scope, product differentiation and innovation, cost leadership, efficient asset management. They also generally aligned to Porter's (1985) strategic types.

There are key differences between product and process innovations; product innovation generates greater uncertainty and requires more interactive communications inside and outside firms. As a result, product innovators, who require close market links, depend on their domestic markets more than process innovators who are able to more easily interact with both foreign and domestic markets initially. (Mascarenhaas 1989). This underscores that innovation is dependent on networks of communication and information sharing. Simultaneously, these networks pose challenges as competitive pressures are likely to leverage the same information, through various channels.

Innovation depends on a knowledge organization. Crossan (1996), in his review of Nonaka (1992), identifies a series of organizational knowledge creation steps – "knowledge vision; knowledge area; high density field of interaction at the front line; piggyback on new product development process, adopt middle-up-down management; switch to a hypertext org; construct a knowledge network with outside world." While the hypertext reference illustrates the dated nature of the piece (what firm has not employed hypertext as its access means?), the overall stepwise approach can still provide a means of demarcation and structure for innovation as a process, vs. innovation as an amorphous concept.

Several frameworks have been developed, which identify the attributes, metrics and drivers of innovation. According to Rose et. al. (2009), there are two frameworks, one of which measures innovation activity, and another, which measures innovation investment. However, there are issues in both frameworks, emanating from the ambiguity and faulty categorization of capital, and overlapping factors. This calls for a more specific delineation of the capital inputs and resulting outputs of the innovation process. To close this paper's subsection, comprehensively understanding the value chain of the organization is a prerequisite to understanding how and if the MNC is advancing innovation. The value chain perspective of Porter shall now be viewed as an example of another factor in innovation analysis – understanding the sector.

Innovation and Sectors

It has been suggested that some industries do not advance innovation as a key mandate. For example, in the government sector, a limited number of advanced technologies are advanced and tried. This is usually associated with a bureaucratic environment and the inhibitor of stasis within the organization, laced with excessive regulations, signatories, and without competitive pressures to encourage change within processes or services. Does this mean there is no innovation in government processes?

Contextualizing innovation within sectors is a challenge due to the multiple layers within an industry. For example, Steve Balmer, CEO of Microsoft commented about healthcare, "Why is this industry 10 years behind? Because ... buying and selling is confused, the target market doesn't have capacity for IT, and that makes it a tough market to jump into. It's so under-automated, so large and so rapidly growing it kind of deserves the best of everybody's innovation" (Miliard 2010). This would appear a perplexing and remarkable comment for an industry that has enormous scientific breakthroughs in surgical procedures, diagnostic capabilities, and prescriptive services. How would one ever consider healthcare as lacking innovation? Yet, this is precisely the reason why contextualizing innovation according to sectors and applications is so difficult. Balmer's paradigm was information-sharing and data retrieval, particularly for patients' history through a myriad of bureaucratic tracking. An example of this would be completions of multiple forms (repeatedly) every time a patient visits the hospital. This ambiguity (understanding how an industry can be innovative or non-innovative) is at the forefront of attempting to create a manageable taxonomical process for measuring innovation. A decomposition of the sector is necessary for a scientific approach to any type of measurement. As this example shows, it is not enough to try to measure innovation in a single sector, such as healthcare, since there are so many sub-divisions within the discipline. Some aspects of the domain may well be extraordinarily innovative while others remain stagnant due to bureaucratic and/or regulatory hurdles.

One could assume that this example belongs in our discussion of sectors above, yet the argument here is not to state whether healthcare is more inhibited by regulation than another sector. It is, rather, to show that even within sectors there are sub-sectors and business processes; different sub-sector areas are affected by process-specific idiosyncrasies, whose motivations may enhance or stifle innovation. For researchers (studying the innovation dynamics and motivations within sectors), or practitioners (seeking to measure and emphasize innovation as a strategic objective), the compartmentalization of the sector and its associated business processes is key to understanding where and how innovation is applicable, constrained, or enhanced, and how innovation can be advanced within the sub-sectors' unique characteristics. Again, the foundational dependency is the firm's value chain. It is, therefore, critical to decompose the MNC's value chain when determining whether or not the organization is an innovative organization and how exogenous factors impact innovation in each of the various departments and sub-processes within that value chain.

For purposes of explanation, consider Michael Porter's (1985) value chain construct in Figure 1. Every activity in the firm is associated with advancing firm performance and value. For purposes of this paper and measuring innovation, there are several primary activities, including logistics, operations, sales, etc. in the bottom row of the figure. There are many supporting activities as well. Using an example, the overall mission of the MNC (and its primary objective) may be in fast-food service. Yet, in attempting to measure how much innovation goes into food service process improvements, one must consider the multiple characteristics of the sector. The MNCs within the sector are not simply sandwich deliverers. The sector is comprised of supply chains, development arenas, sales, government relations, community outreach, marketing, etc. There are several functional domains within the MNC, no matter what sector. Can one say that the food service sector is any less innovative than the education sector or the technology sector? Only by way of understanding each process and organizational value chain, can one begin to evaluate innovation as a measurable construct.

When researchers consider sector as a factor for determining impact on innovation, they must be careful in how to assess the sector, since each complementary process within the firm (and sector) will have a bearing on innovation. And the various processes within the firm may be more innovative than others. Innovative techniques can apply to product innovation, process innovation, marketing innovation and organizational innovation (Kalkan 2012). Note that within such a taxonomy, those four techniques can fit into the value chain dynamics – either in the primary activities or the support activities.

Country – Institutional Barriers to MNC Innovation

A significant hurdle, related to institutions and ubiquitous in MNC engagements is government regulatory compliance mandates. However, the response to regulation is not always a liability but potentially a firm opportunity. Within each portion of the value chain and within the firm itself, innovation can be supported or inhibited by government regulation. There may be some serendipitous effects of so-called institutional barriers. Many governments have now considered promotion of innovation as a competitive advantage. A typical assumption has long been assumed that regulation is a hindrance, because it distracts firm's resources. But there can actually be benefits to regulation by provoking firms to adapt. "Regulation that does not require innovation for compliance will generally stifle innovation, although it may spur circumventive innovation if the firm or industry can find a path to escape the regulatory constraints." (Stewart 2010). Stewart's focus was to guide government institutions in determining the most appropriate type of regulation and the factors that are derived from firm-exogenous effects.

Regulation comes at a cost. And the cost will divert resources away from innovative activities and toward compliance. "For example, financial reporting regulation may cause a firm to redirect resources from its R&D division to its internal auditing division" (Stewart 2010). Yet, this same regulation may invoke innovation as firms may not have the present capability to achieve compliance within their current business process, technology or personnel. They must then innovate due to the regulations. This may instigate circumventive innovation, where a firm may attempt to escape regulatory constraints by providing for a new service outside the physical constraints of the mandate. Conversely, as illustrated in Figure 2, compliance innovation occurs when regulation is so broad that any process innovation still remains within the scope of the regulation itself. (Stewart 2010).

In the Stewart framework, three innovation dimensions are measured: Flexibility, as a regulatory dimension, considers how much "wobble room" a firm has in achieving compliance by a number of different implementations or approaches. Stringency measures how much burden is placed on firms in order to achieve compliance, and Information is a measure of how much the market is positively affected by new

information. While the view is on regulatory implementation, practitioners can employ these same dimensions in their innovation response to new mandates. This is also another means to measure a firm's innovation preparedness under uncertainty.

Here we recognize that innovation barriers may actually create a serendipitous effect. By instituting a regulation, firms are forced to manage that regulation and comply with its expectations. Innovation can be encouraged by the firm, inventing better means to comply.

This challenges a singular view of regulation as being only a negative force against innovation, when it could also be a positive force.

Innovation may be incremental or radical. (Note that Stewart's radical innovation would equate to Christenson's "disruptive" paradigm.) Under incremental innovation, firms would adjust processes in minor ways to achieve compliance, while radical innovation would be to completely advance new products and processes required to meet the institutional mandate. "At the extreme, radical innovation may usher in new technological paradigms, greatly benefitting the innovator or society at large. Very generally, radical innovation yields greater benefits than incremental innovation yet is also significantly more costly and risky." (Stewart 2010). Radical innovation is often the pursuit of "unknown unknowns" and can result in "dud" inventions or none at all.

For the practitioner, it is important to understand whether regulatory bodies are demanding radical or incremental innovation, and the only way to evaluate that is to fully comprehend the firm's value chain. This also applies to the researcher, who may assess MNC's within certain sectors.

CONSIDERATIONS IN DEVELOPING MODELS

While this paper aims to structure the concept of innovation for improved handling by practitioners and researchers by way of a taxonomical assessment, and to illustrate how firms can embed innovation into their corporate structures, some frameworks have been developed, which assist in devising a proposed model and consider if the proposed structure (described later) will accommodate or improve on previous research. In Figure 3, Rose et. al (2009) has shown that inputs can be tangible and intangible. This perspective would be appropriate to all aspects of the value chain. Earlier it was stated that only through the value chain analysis can innovation be measured and managed. The value chain activities would fall into the center circle of Rose's diagram. The inputs and outputs could be measured; however, only through an impact study of inputs on the value chain can an outcome be derived.

Nevertheless, there is still a challenge in defining the metrics applicable to overall firm assessment. From a country perspective, there have been several published views, from the Global Innovation Institute, to Bloomberg, to Innovation America, among others. There is a degree of overlap and consistency relative to institutional metrics, infrastructure assessment, human capital focus, the market sophistication of the country, and then the inputs. The inputs and outputs could be married with the Rose framework to assist in determining applicability of certain terms.

For the purposes of international business, consider the types of innovation that are instilled into a corporate culture. The day to day activities of the firm demand robustness and quality control. Innovation, however, does not imply an "anything goes" mentality within the operation. But it does suggest a deliberate analysis of processes and how to make those day-to-day activities more cost effective and productive. The types of innovation – evolutionary and revolutionary (or as Stewart called, "incremental and radical") would depend

upon the organizational process constraints of the specific functional units involved. Again, consider the value chain of the MNC and the accountable functional areas. Innovation will not be applied or considered in one specific manner.

A taxonomical structure for innovation must also account for a country view and a firm view. A firm's ability to be innovative cannot be leveraged unless the environment surrounding it promotes innovation, as well. There are factors that drive a firm to be innovative, and there are factors that make a country innovative, according to the index assessments of Global Innovation Index and others.

Consistent with the Rose model, other models of endogenous innovation imply growth via innovation – that is, technological change – in which the ability to produce more output from the same quantity of inputs is achieved. Such technological change represents an outward shift of the production possibilities frontier, and thus the direct connection (between technological advance and the observable level of output produced with a given quantity of the relevant inputs) is captured by measuring total factor productivity (Smith 2014).

PRACTITIONER CHALLENGES – MEASURING INNOVATION

Several metrics have been developed for country-level innovation. These include the Global Innovation Institute, Boston Consulting, Innovation America (which focuses on domestic attributes assigned to various states), and Bloomberg Innovation Quotient. These are generally focused on the country (or state) rather than the firm.

The country level measures are normally corresponding to resources and environmental aspects. For example, the Global Innovation Index (GII) of the World Intellectual Property Organization employs six major categories: Institutions, Human Capital, Infrastructure, Business, Knowledge, Technology, Creativity. Within these categories are multitudes of budgetary, demographic and governmental metrics. These factors should be employed by researchers in considering nation state differences and their impact on FDI and entry modes. While it is important to consider the granular nature of these metrics, one must consider a weighting as well. “Workers with advanced degrees are an essential starting point for innovation. Yet their existence does not guarantee scientific or technological breakthroughs or other forms of non-technological or social innovations. Creative and critical thinking, and the appetite for taking risks and thinking entrepreneurially, often matter at least as much as technical qualifications. In addition, innovation is spurred by having favorable conditions in which actors and society are open to new approaches. Putting the right environment in place that will nurture, promote, and enable the human factor behind business and social innovation is a complex task, but a critical one.” (GII 2014)

Further, from the perspective of the MNC, and innovation within the firm's control, measuring innovation would be in pursuit of its effectivity. The primary focus would certainly be on ROI.

When one considers the firm, Kaplan (2014) asks salient questions around performance. “In short, you need to disrupt the business-as-usual mindset.” He specifies a number of measures that can initially focus the assessment of innovation:

- Percentage of revenue or profit coming from international versus domestic markets
- Revenues from new products or services introduced in the past X year(s)
- Revenues from products or services sold to new customer segments
- Percentage of existing customers that trade up to next-generation products or services
- Percentage of revenue coming from services versus products (or vice-versa)

- Royalty or licensing revenue from intellectual property

Many studies point to R&D budgets, but there is much more to innovation than this factor. “According to McKinsey, more than 70% of corporate leaders tout innovation as a top three business priority, but only 22% set innovation performance metrics. The gap is problematic. Why aren't more companies measuring innovation? Because innovation is nebulous. Definitions differ. Expectations vary” (Kaplan 2014).

He refines these further, as advice, but there is no testing or empirical study of effectiveness or consistency. Is this an omission? The task is daunting. For example, note that these metrics do not account for a slow product life cycle (such as in pharmaceuticals, nor the corporate strategy, which may be explorative rather than short-term exploitative. Employing metrics to understand if innovation is embedded into the value system of the firm must be normalized according to other factors.

Moreover, innovation metrics have been evolving over the past several decades. Milberg’s and Vonortas (2004) have recognized four perspectives, shown in Figure 4.

If one simply plucks a set of indicators from the figure, the value is questionable. They are a starting point only for assessing firm-specific activities. Yet, rather than settle on one specific set of innovation metrics, which would be all encompassing for sector, country, process, each activity in the value chain should be assessed on its own merits and according to its own accountabilities. Any view of innovation begins with assessing the firm’s commitment to innovation (corporate culture) and a means for evaluating innovation within the firm-specific value chain.

TAXONOMICAL MODELING

Based on research, referenced in the literature review, some firms will have a propensity to more innovation than others; therefore, further analysis of the firm’s sector, its degree of internationalization, and internal processes (value chain) is required.

From the country perspective, one can expect that as more firms are successful in providing country growth, then the country policy makers may consider continued liberalization into an innovation economy. Research has been advanced, which speaks of the government policy effects influenced by MNCs, and Stewart (2010) emphasized the regulatory considerations and impact of compliance initiatives.

Previously identified were two sets of metrics for evaluation – those for country and those for firm. Evaluation of this model requires that firms are filtered according to their home country (and potentially host country) status prior to evaluation.

In addition, there are two factors that drive the respective innovation measures – government policy on the country side, and firm sector on the firm side. The level of firm innovation, and environmental innovation (country institutions) should have an impact on the firm. As one accepts that innovation is an objective of many governments in order to sustain competitiveness, then government policy is a key cause-effect attribute for firm competitiveness and innovation, illustrated in Figure 5.

This model has accommodated both firm level metrics and country level metrics, which shall have an impact on the firm’s competitiveness and performance. Note the two-way arrow, which suggests that country innovation will also be affected by a firm’s performance, and underscores the research avenue for MNC as agent of change. Understanding innovation influences as endogenous and exogenous factors will

enhance the researcher's and practitioner's analysis. Further, employing systems dynamic model would offer opportunities to view innovation factors and their dependencies and impacts.

In pursuing research in innovation, a compartmentalized approach is necessary to avoid ambiguity and better illustrate dependencies. The following defined activities represents an initial taxonomy for study, while underscoring the fact that each discipline is interdependent. This is followed by the illustrated framework.

FIRM LEVEL ANALYSIS

From a practitioner point of view, the question of corporate culture is paramount. If the organizational values are not concentrated upon innovation as a firm value, then tacit attributes will be absent and not positioned to advance innovation operationally or strategically.

The value chain, as discussed in Section 2, must be thoroughly analyzed in order to determine where innovation is practiced and how it may differ between functional groups. From this analysis, can a set of firm-specific measures of innovation, based upon the strategic goals and competitive pressures be delineated? Operationally embedding innovation is critical, but there shall be additional opportunities from an initiative or program angle. One of these initiatives may well be the institution of metrics that will define innovation for each functional department.

Future research must consider the differences in firm, not just by a generic consideration of ownership advantages but also by the corporate culture.

INDUSTRY ASSESSMENT

Sector specifics identify the arena to which a firm will play and compete. But determining innovation success by generalizing industry type omits the fact that various dependencies exist, affecting firm entry modes and overall supply chains. Innovation in this context will mean innovation in networking and overcoming obstacles in resource acquisition. Innovation will demand creativity in the relations of the firm with a host country customer-base and partners.

Institutional Effects

As discussed above, regulatory mandates can cause a variety of reactions, both undermining innovation as well as promoting it. There are various metrics according to economic freedom, which by and large can be associated with similar "market" dynamics that GII has put forth. An analysis of metrics from the country perspective is necessary to understand exogenous factors upon the firm's strategy.

International Business Advances

Macro analysis and government response to MNC behavior will demand quantification of growth (in country), FDI, and country competitiveness. As international business is, at the core, the study of the firm, the behavior and influences of the firm upon a country (as agent of change) may well have bearing upon human freedom. As innovation is typically associated with quality of life, with spillover (and negative effects also), then innovation in this domain should consider the impact of the firm on the institution of nation state, as well.

Figure 6 is a proposed framework for innovation study and its major dependencies.

Practitioners and researchers in international business should examine their innovation premises and their study focus in context of an overall framework, which compartmentalizes innovation into a structured recognition of key factors – the firm, the industry, the associated institutions, and the metrics. All analysis categories will have impacts and dependencies upon other categories. Research, empirical or otherwise, must contextualize the innovation subject matter and recognize, particularly with the MNC, that innovation will have multi-dimensional attributes in various parts of the value chain. When innovation is applied to a firm, practitioners can consider whether the innovation can (and should) be a managed value across every business process and sub-process.

RESEARCH FUTURES

This paper has chronicled major literature in the realm of innovation. The primary focus is to not only organize the strands of literature and the various themes into a cohesive set of research areas in international business, but to create a taxonomical framework that can be employed by researchers and practitioners in the analysis of the MNC and associated strategy; innovation means many things to many people.

By studying and evaluating innovation attributes, the overall framework can generally align to key international business domains as well as the strategic tripod (Peng and Wang 2008), and also within each of the major domains of Firm Level Analysis, Sector Level Analysis, Country Analysis, and Metrics Analysis.

Even from a sectorial perspective, innovation may not be managed in a uniform manner within the firm. There are several functional areas and various accountabilities that may view innovation as an incremental goal (such as in robust operational standards) or a radical (disruptive) force, such as in new product development. To determine whether a firm is innovative, a demarcation of accountabilities and value chain activities is required.

Metrics for country and firm were identified, particularly the GII, which is representative of many institutions focused on understanding innovation. However, there has been little empirical analysis as to whether these specific metrics are truly capturing the effectiveness and successes from innovation. Future research should begin with a systems dynamics viewpoint and then focus on the types of metrics that would comprise the various system inputs and outputs throughout the model. These factors would correspond to some of those proposed by Rose et. al. (2009).

Finally, this paper captured the significant research considerations and offers four disciplines of Innovation Analysis -- MNC Assessment; Industry Assessment, Institutional Effects, International Business Advances. Future research can better situate and contextualize the discussion, assessing all aspects of innovation by employing these four domains, as well as with theoretical consideration of the firm's value chain.

Moving forward, additional research questions would be feasible, based on the model evaluation and analysis:

What are the most practiced MNC means for innovating within various industries?

Are there best practices that are instilling a culture for innovation and an operational approach for innovation?

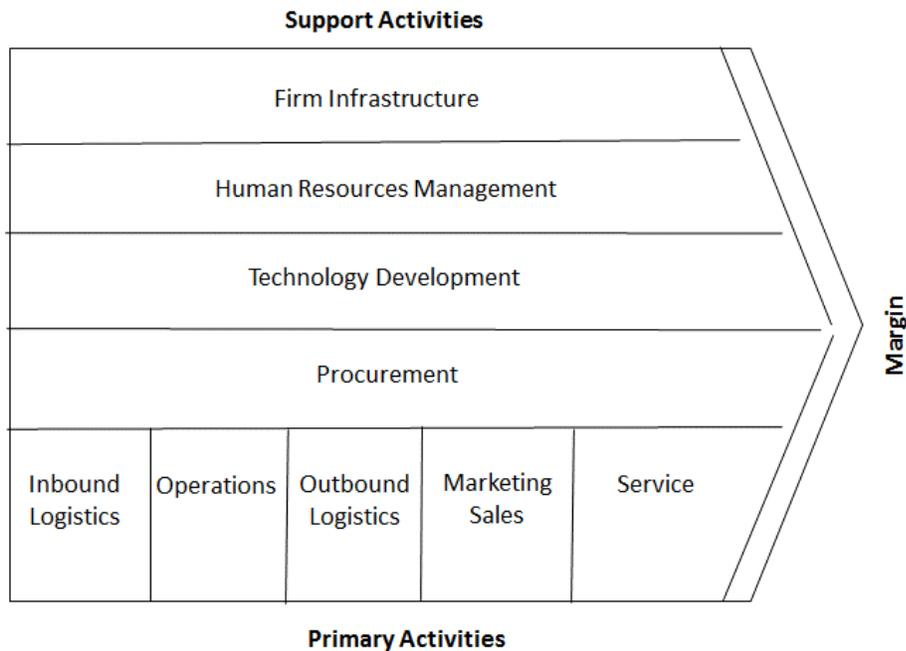
If innovation is a corporate value and imperative, what are the factors of innovation which apply to their various sub-departments? (Value chain analysis)

Can innovation in a country be globalized simply by government policy?

By providing a taxonomical approach for contextualizing innovation, and applying the discipline to various parts of the value chain, there is potential for less ambiguity in the research field, and more streamlined managerial guidance for practitioners.

FIGURES

FIGURE 1
PORTER'S VALUE CHAIN PERSPECTIVE IS AN APPROPRIATE METHOD TO ASSESS
INNOVATION IN DISTINCT PARTS OF THE ORGANIZATION



(Porter 1985)

FIGURE 2
COMPLIANCE UNDER REGULATION IS NOT NECESSARILY BURDENSOME, RELATIVE TO FIRM INNOVATION (STEWART 2010)

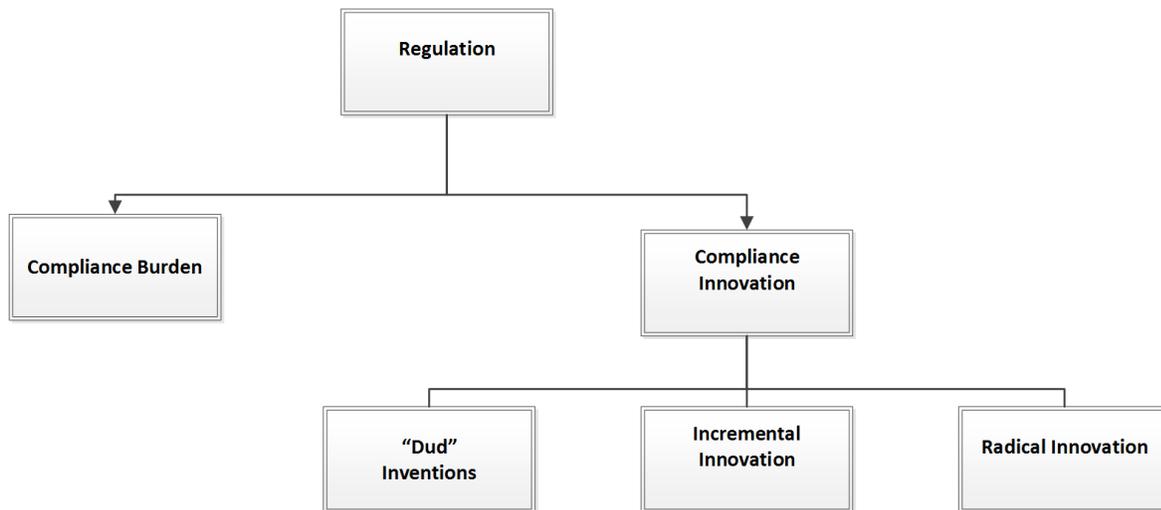


FIGURE 3
TANGIBLE AND INTANGIBLE DRIVERS TOWARD INNOVATION SHOULD BE ASSESSED AGAINST A FIRM'S VALUE CHAIN

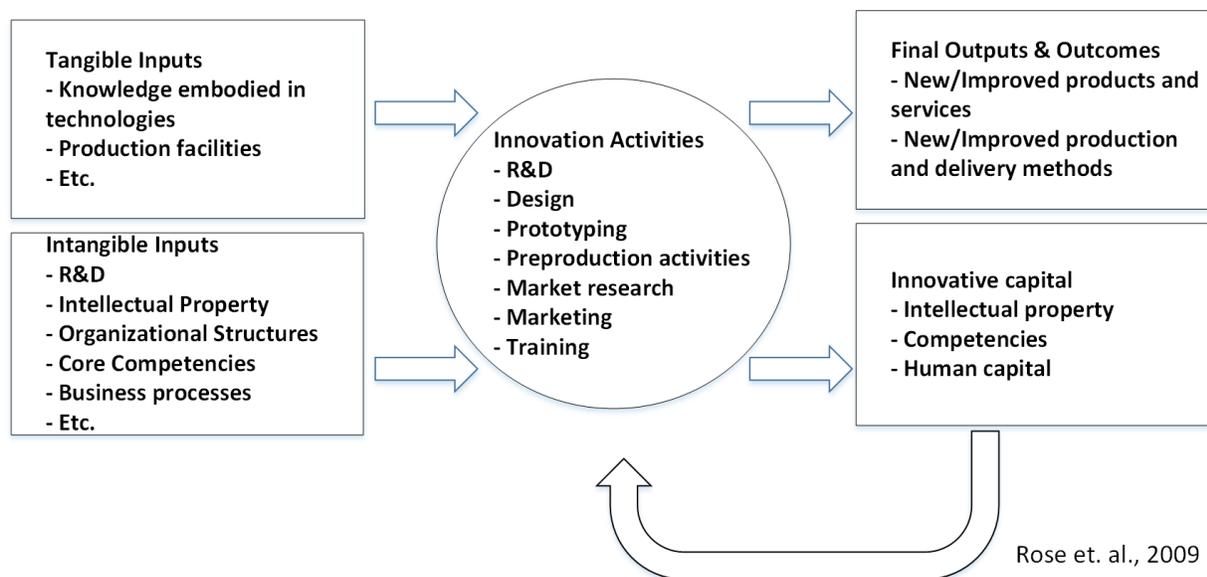


FIGURE 4
METRICS ON INNOVATION HAVE EVOLVED FROM BASIC MEASURES TO PROCESS ORIENTED VIEWS, WHICH ALIGN TO A VALUE CHAIN PERSPECTIVE

Examples of evolution of innovation metrics by generation.

First Generation Input Indicators (1950s–60s)	Second Generation Output Indicators (1970s–80s)	Third Generation Innovation Indicators (1990s)	Fourth Generation Process Indicators (2000s plus emerging focus)
<ul style="list-style-type: none"> • R&D expenditures • S&T personnel • Capital • Tech intensity 	<ul style="list-style-type: none"> • Patents • Publications • Products • Quality change 	<ul style="list-style-type: none"> • Innovation surveys • Indexing • Benchmarking innovation capacity 	<ul style="list-style-type: none"> • Knowledge • Intangibles • Networks • Demand • Clusters • Management techniques • Risk/return • System dynamics

Source: Milbergs and Vonortas, 2004

FIGURE 5
STRUCTURING CAUSE AND EFFECT ATTRIBUTES FOR INNOVATION SHOULD FOCUS ON FIRM SECTOR AND COUNTRY CHARACTERISTICS

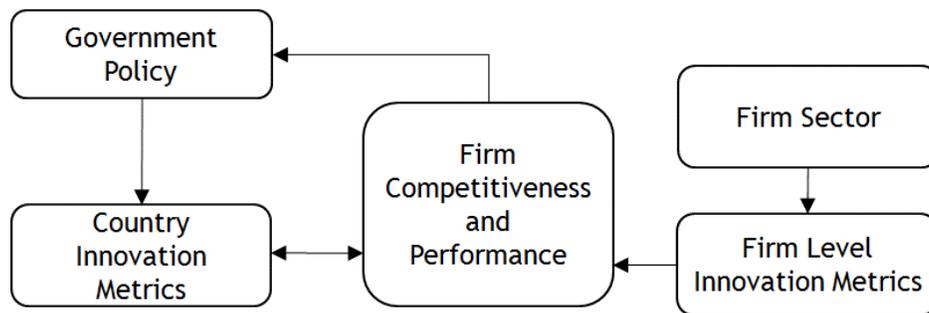
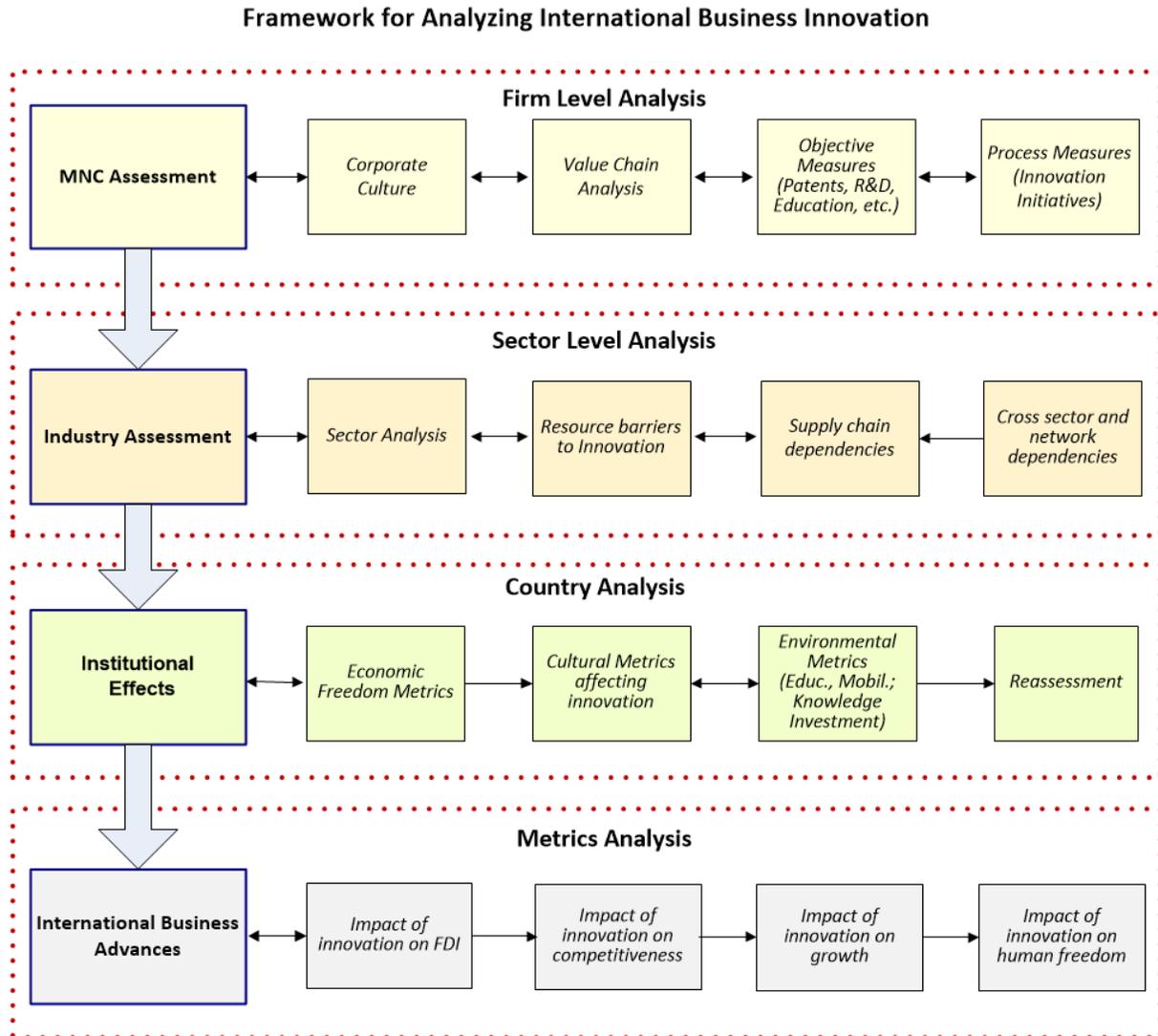


FIGURE 6
FRAMEWORK FOR RESEARCHING INNOVATION: EXAMINING INNOVATION
REQUIRES A COMPARTMENTALIZED VIEW OF FIRM, INDUSTRY AND INSTITUTIONS,
AS WELL AS THEIR INTERDEPENDENCY



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Strategy to Be Market Leader of Chang Beer

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ABSTRACT

Thai Beer (1991) Company, as the producer of Chang beer, used a dumping marketing strategy of retail prices to be lower, by the method of local liquor selling with a beer plus method. In 1999, Chang beer was the market leader with a market share of 58%; Boon Rawd Brewery Company's market share dropped down to 35% and became the market challenger (being the former market leader for 65 years, 1933-1998). This is an interesting case study to investigate. Therefore; the purpose of the study aims to analyze how Chang beer became a market leader. The methodology is qualitative and descriptive. The results of the study demonstrated that market leader applied strategy as follows: (1) Strategy in selling local liquor plus with beer, (2) Price and channel strategy, (3) Brand building strategy, (4) SWOT analysis strategy, (5) Heavy advertising strategy. (6) Proactive strategy, (7) Selling point building strategy, and (8) Marketing mix strategy.

Keywords: Strategy, Market Leader, Chang Beer

1. INTRODUCTION

Thai Beer (1991) Company was the producer of Chang beer. It is part of Mr. Charoen Siriwatthanapakdee's group with the purpose to bring Chang beer to compete with Singha beer directly. The factory was established at Ayudhaya province. Thai Beer (1991) Company Limited constructed the second Chang beer production factory in the value of 8,000 million baht at Klongkhlong District. It was under the construction and installation of machineries by Brew Company Limited from Denmark. Aside from the extension of the second beer factory, there was a need to construct one more factory at Kamphaengphet province as it has a high tendency of consumer's demands. And the production capacity of Chang beer in the first production place in Bangbal district, Sriyudhaya province with the full production capacity of 580 million liters annually is not sufficient.

2. LITERATURE REVIEW

2.1. Marketing Strategy

Competition is more intense and global in scope while product quality and customer expectations have risen steadily in the past decade. Firms must do more to compete. They must run faster merely to keep up (Schnnears, 1998). Advantage is a moving target in the turbulent and rapidly changing marketplace. Sustaining competitive advantage requires creating capability gaps relative to competitors. Strategic planning guides the business in managing the forces of change and maintaining a competitive edge (Cravens, 1994). Of course, efforts to improve service quality do little to give the firm a competitive advantage unless customers perceive that those efforts really do result in superior service (Walker et al. 1992). Strategic marketing plays a pivotal role in business performance. This is demonstrated in the market-driven strategies of successful organizations competing in a wide array of market and competitive situations (Cravens, 2000). Marketing strategy includes the Identification and evaluation of opportunities, analysis of market segments, selection of a target market or of target market, and planning an appropriate marketing (Zikmund & D'Amico, 1984). The primary purpose of a marketing strategy is to effectively allocate and coordinate marketing resources and activities to accomplish the firm's objectives within a specific product-market. Therefore, decisions about the scope of a marketing strategy involve specifying the target-market segment(s) to be pursued and the product line to be offered. Then, firms seek a competitive advantage and synergy, planning a well-integrated program of marketing mix elements (primarily the 4 Ps' of product, price, promotion and place of distribution) tailored to

the needs and wants of customers in the target segments (Walker et al. 1992). Marketing strategy plan consists of three parts, The first part describes the size structure, and behavior of the target market, the planned product positioning, and the sales, market share, and profit goals sought in the first few years The second part of the marketing strategy outlines the product's planned price, distribution strategy and marketing budget for the first year The third part of the marketing strategy plan describes the long-run sales and profit goals and marketing-mix strategy over time (Kotler et al. 1999)

2.2. Marketing Mix

Marketing is simplistically defined as 'putting the right product in the right place, at the right price, at the right time.' Though this sounds like an easy enough proposition, a lot of hard work and research needs to go into setting this simple definition up. And if even one element is off the mark, a promising product or service can fail completely and end up costing the company substantially. The use of a marketing mix is an excellent way to help ensure that 'putting the right product in the right place. The marketing mix is a crucial tool to help understand what the product or service can offer and how to plan for a successful product offering. The marketing mix is most commonly executed through the 4 P's of marketing: Price, Product, Promotion, and Place (<http://www.entrepreneurial-insights.com/understanding-marketing-mix-concept-4ps/>). Once a target market has been identified, marketing strategy can address the components of product, place, price, and promotion (Reeder et al., 1991). The controllable tasks of marketing can be categorized into four set of activities that make up the bundle of satisfaction. These factors are most often referenced to as the 4 P's: product, price, place and promotion (Schewe & Smith, 1983). Marketing mix is the set of controllable variables and their levels that the firm uses to influence the target market (Kotler, 1980).

3. PURPOSE OF THE STUDY

The study analyzed the marketing strategy on how Chang beer became a market leader.

4. METHODOLOGY

Both qualitative and descriptive are the research methods used. Research methodology included reports from both the private sources and government offices. Data collection are from primary and secondary sources. This study used primary data from a survey for the analysis. The survey instrument was revised, and pre-testing was done using a questionnaire. The questions in the questionnaire are designed based on a review of the theories and specific characteristics of beers. To collect data, opened-ended questions in a structured questionnaire were used to capture the marketing strategy. To complete the information from collected questionnaires, in-depth interviews had been conducted. On the other hand, secondary data were collected from newspapers, textbooks etc.

5. FINDINGS

5.1. Marketing Objective

The marketing objective of Chang beer is to have a market share of 10 percent from the total beer value of 30,000 million baht within three months (at the end of 1995). In the past, sales volume of beer produced in Thailand had an increased amount in compliance with economic situation which was at a high rate of growth. In the middle of 1997, Thailand was faced with a critical economic situation, most of the high sales volume of beer was concerned with cheap beers like Chang as consumers' behavior has changed. Most drinkers favored cheap beers due to price sensitivity.

5.2. Marketing Strategy

Chang was a beer that competes with Singha beer by using the second P (price). Chang was a Thai beer that was able to fight in every manner. As the price of Chang beer could be reduced to four bottles per one hundred baht, Singha beer was unable to reduce its price even making two bottles per one hundred baht. Then Leo beer has been launched as a fighting brand for Chang beer. Competition in this sense was in connection with prices right at the time of the economic slowdown. Whatever reason maybe for getting drunk, it was preferable to be drunk buying a beer with cheap price. They then turned to drink Chang beer. However, a key strategy that made drinkers turned to drink Chang beer was a plus selling strategy.

Launching of Leo beer in order to scramble Chang beer's market scrambled Singha beer own market instead because drinkers whose income was reduced still desired to drink beer with the same taste as Singha beer but with a lower cost. When the taste of Leo beer was not much different from Singha beer, they then turned to drink Leo beer. The marketing strategies used by Thai Beer (1991) Company are as follows:

5.2.1. Strategy in selling local liquor plus beer

The company produced Chang beer for distribution in 1995 having an intensity of about 7 degrees by positioning it to be lower than Singha beer capturing groups of drinkers who have low income (lower market). The marketing strategy was made by compulsion "to sell local liquor plus with beer". With this strategy, it was set that Chang beer should target to have a market share of 10% of the total beer market value of 30,000 million baht within three months (end of 1995). However, Chang beer was able to grasp such a marketing share within three weeks due to having channels of distribution with the help of the Surathip group who was the owner of Chiangchun, Mekhong, and Kwangthong liquor, etc. Selling of local liquor in a plus with beer resulted in the following matters: (1) Wholesale price of Chang beer is cheaper than an actual price in the market, (2) Local liquor agents were required to launch beer to the market as rapid as possible by dumping the price of Chang beer to be 3, 4 or 5 bottles per 100 baht. It was a strategy of market dumping and using a brand of market leader that made Chang beer occupied the market share up to 60%. Strategy of selling local liquor in a plus with beer had an impact on Singha beer due to the low purchasing power of consumers caused by the economic crisis. Most of consumers' behavior concentrated on price which was a principal factor in making a decision. This behavior still continued up until today. Since the economic crisis in the middle of 1997, the concern is with price sensitivity, that is, the price must be firstly cheapest. A slight change in the price, either going up or down, always resulted in an immediate sales volume. Selling local liquor plus beer strategy was occasionally provided the highest sale, one dump of local liquor to be added with 5 dozens of Chang beer and so on. This practice pushed the market share of Chang beer to increase rapidly. Chang beer occupied most of the market share up to 60% owing to the strategy of local liquor selling plus beer compulsion which was able to dump at the lowest price such as 3, 4 or 5 bottles per 100 baht. Compulsion to sell local liquor plus beer via channels of distribution done by the Surathip group by lowering the wholesale price than it should be in the market complementing with the requirement of agents for cash and for releasing of beer as quickly as possible with a retail price dumped occasionally at the lowest level until it reached at only 20 baht or 5 bottles per 100 baht, whereas the minimum price of Singha beer was two bottles per 100 baht.

5.2.2. Price and channel strategy

This strategy was done by using the price strategy together with strategy of strong distribution channels via agents of 43 affair company group in the same affiliation of major its shareholder, namely, Mr. Charoen Siriwattanapakdi. Although the position of Singha beer (Standard level) would be in a different segment with that of Chang beer, Singha beer was severely affected from local liquor selling plus beer compulsory strategy. The market share of Singha beer at the end of 2000 was only 40% because Singha was unable to dump at the lowest price (the full capacity to dump was at a minimum of two bottles per 100 baht) and eventually, it was essential for Boonrawd Brewery Company to produce Leo. Super Leo beer then fight against Chang beer. The market shares of Chang and Singha beer are shown in Table 1.

TABLE 1
MARKET SHARE OF CHANG AND SINGHA BEER (%) 1995-2000

Year	Chang	Singha
1995	7	82
1996	14	80
1997	31	70
1998	41	39
1999	58	35
2000	60	40

Source: Ministry of Excise, Department of Finance

5.2.3. Brand building strategy

After receiving an award of a gold medal in the category of larger, non-limited degree beers in the international beer competition which was held in Australia in July 1998, Chang beer was able to create its brand name and had elevated a new image into it as a gold medal winner in line with beer. The company used this strategy to create a brand name, steps done were as follows:

Added channels of distribution in the food shops, but only in the area of deluxe level.

In April 1999, marketing policy was carried out as follows: (1) Reduced an aspect of selling local liquor plus beer by providing alternatives to agents for being able to buy products both in a manner of buying with a plus or buying Chang beer only, (2) Made price adjustments from 320 baht a dozen to 370 baht in order to make the image of Chang beer improved, (3) Pushed Chang beer to be recognized in every sphere and elevated it from a lower level to the middle and upper level (it was being applied to the lower level in the past) only, (4) Created value for the drinkers to alter from drinking Lao Kao to drink Chang beer instead which is being smart and dignified, and (5) Used popular stars or singers to be a pre-centre for media strategy such as “AD Karabao”. This is part of the strategy of making a repeat for people to remember Chang beer as a global gold medal awarded beer and make it a necessity to drink in every party and so on.

5.2.4. SWOT analysis strategy

The company analyzed the weakness and strength points of Chang beer that would be beneficial in planning a way to market as follows:

The strength points of Chang beer: (1) It is a golden medal awarded beer in the non-limited degree in the international beer competition fair at Australia in July 1998, (2) Price for distribution was cheap and it was accessible to the target groups, and (3) Channels of distribution were tough. The weak points of Chang beer: (1) Brand loyalty was lower than competitors, (2) It was a new beer, and (3) There was a very high degree of interception from competitors which cannot be controlled.

5.2.5. Heavy advertising strategy

It was conducted by advertising via television, radio, printing materials and by marketing activity to create opportunity in the future for possible market growth. Chang beer used advertising media in several patterns and has been in television since 1999, by making a repeat via advertising motion picture in the form of multi-dimension such as (1) Conservation of being a Thai, and (2) Repetition of point for being a gold medal awarded beer.

5.2.6. Selling point building strategy

Received award of a gold medal from the international beer competition held in Australia is the established selling point of Chang beer. This point would enable an image of Chang beer to be a standardized beer for

foreigners while its competitor, Singha beer, received only the Silver medal award. In Chang beer, foreigners were more confident in its quality and taste. Thai Beer (1991) Company added budget for promotion in the amount of 20 million baht more for undertaking an aggressive marketing strategy to stimulate sales volume. This was done by adding sales representatives to approach shops instead of waiting for orders from shop owners as in the past.

5.2.7. Proactive strategy

Chang beer used beer plus local liquor selling compulsive strategy and distribution channel strategy via local liquor agents of about 500 individuals belonging to Surathip group and from 43 affair company group which was in the same affiliation with its major shareholder, namely, Mr. Charoen Siritwattanapakdi. This was in complement with the 1-2 year period of Thai economic crisis which made a large quantity of Chang beer being sold at a cheap. At the end of 2000, Chang beer was able to occupy a market share of 60%. Boonrawd Brewery Company Limited was needed to produce a beer as a fighting brand to battle with Chang beer, Leo beer was then launched in June 1998 as Singha beer was unable to dump at a low price. Singha beer price differed from Chang beer in about 20 baht a bottle.

Thai Beer (1991) Company used proactive strategy to intercept launching of Leo beer that was distributed in June 1998. The company sent notification to distributors throughout the country to add beer plus local liquor selling from one dump of Lao Kao to be plus with 1.5 dozen of Chang beer. The purpose was to push Chang beer to appear in the market as much as possible. As it was oversupply, agents had the burden of the increased cost and it was necessary to find a way out to release stock of Chang beer in a cheaper manner from three bottles per one hundred baht to 4 bottles per 100 baht or 5 bottles per 100 baht and price of Lao Kao was being adjusted to be higher from retail price of 42 baht to be at 65-70 baht. And the color of the liquor was also adjusted. This had caused an amount of loss sales for Chang but was a plus to Lao Kao instead.

Proactive strategy of Thai Beer (1991) Company resulted in the Boonrawd Brewery Company to produce Leo and Super Leo beer (have a higher degree of intensity than that of Leo) in the same year of 1998 but it was not able to scramble the market share of Chang beer. This was due to a sharing of market between Leo and Super Leo beer. On December 28, 2000, Super Lion, which was a new beer was being launched as a direct fighting brand of Chang beer.

Super Lion beer: Its selling point is that it is a beer that has degree strength of 6.5%. Eventually, the production of Super Leo was stopped permanently because of: (1) the confusion it had created to consumers, and (2) Sales volume was low in comparison with Leo which had more than 20%.

Later, the proactive strategy of Chang beer was to reduce its price promptly when Super Lion beer was launched for distribution on December 28, 2000. From 300 baht a crate of Lao Kao and Chiangchun, it was adjusted to increase its price. For the plus of Chang beer, Lao Kao and Chiangchun bought for one crate of 36 bottles, it will be given a plus of 8 crates (one crate was composed of 36 bottles) of Chang beer. This, however, made subagents to have burden because of the cost in part of Chang beer. It was then necessary to make an adjustment of Lao Kao and Chiangchun from 66 baht a bottle to 75-80 baht a bottle and to dump the remaining large quantity of stock for Chang beer in order to compensate the amount that was needed. It was sold below its cost, 4 or 5 bottles per 100 baht.

For proactive strategy involved with beer plus local liquor selling of Thai Beer (1991) Company Limited, the retail price of Chang beer could be dumped to a minimum of 5 or 6 bottles per 100 baht while Super Lion and Leo beer was unable to be reduced below their cost for competition. Thai Beer (1991) Company undertook a marketing strategy in an aggressive manner by making a repeat of Chang beer receiving a global gold medal award. The company used a variety of versions of advertising media to stimulate the sales volume, an additional budget of about 20 million baht was given for this advertising. In addition, 4P

(product, price, promotion and channel strategy) was used for undertaking marketing operations as detailed below:

Carlsberg beer entered into Thailand in 1993, where its market, in such a time as this, was only Amarit and Singha beer. These beers had a market share of more than 90%. The set price was 10% below Singha beer and had a degree of about 5-6 stronger than Singha beer. Generally, it was sold in competition with Singha beer by positioning between Kloster and Singha beer. Carlsberg beer was positioned in the upper market and Chang beer was positioned in the lower market. Thai Beer (1991) company used product development strategy by concentrating on the development of quality, production technology and taste to be in favor with the taste of the Thai people, using a good grade of malt and special kind of yeast and hop into a premium level having a team of experts in the area of beer blending which assisted in the development of the quality and to produce an excellent product. Chang beer is greatly popular among countrywide drinkers by having a market share of about 60%. The target groups of Chang beer are: (1) Group of its regular drinkers, (2) Group of persons who like to drink colored liquor which is expected that these drinkers want to try a new product, (3) Group of persons who are in the provinces and like to drink Lao Kao particularly as they are confident that Chang beer is cheaper than Singha beer.

Concerning brand name setting, the reason why the company appoints name “Chang beer” is that: (1) Its name is auspicious, (2) It is a name in Thai pattern, and (3) It can be understood easily and it is easy to call. The key point is that it is immediately recognized by Thai people, Chang beer is ideally a beer for Thai people. Its brand appeared on Chang Label which consists of the figure of two elephants face to each other. There is a fountain in the middle, as the slogan shown face with each other ‘representing the meaning of friendship and it is a kind of beer that is very appropriate for any kind of party. Received award of gold medal is another way that Chang beer is pushed to elevation from a lower level to middle and upper level in the market. And establish a value to turn drinkers from Lao Kao in the middle and upper market to drink Chang beer instead. Another method used was to use a presenter, a well-known country singer “Ad Karabao” to be shown in motion picture, televised and broadcast countrywide alongside with the song of about the gold medal award received by Chang beer. The song was performed with Sam Cha (Three Cha) rhythms and composed and sung by Ad Karabao which is considered to be a media strategy that is able to communicate by: (1) Making a general mark that people who drinks Chang beer is drinking a gold medal awarded beer and providing an atmosphere that is fun which will make a lot of friends to join in every party, (2) Communicating prominent point of Thai culture and Thai value is still exist permanently when drinking a global gold medal awarded Chang beer in order to connect friendship, and (3) Making an increase of frequency in advertising via television about gold medal awarded Chang beer in order to retain in the people’s memory about the Chang beer and constructing of brand awareness.

5.2.8. Marketing mix strategy

- **Product Strategy.** Concerning brand name setting, the reason why the company appoints name “Chang beer” is that: (1) Its name is auspicious, (2) It is a name in Thai pattern, and (3) It can be understood easily and it is easy to call. The key point is that it is immediately recognized by Thai people, Chang beer is ideally a beer for Thai people.

- **Price Strategy.** The company had a policy to make an adjustment of prices by considering about various factors such as competitor, situation and consumer’s behavior. For example, on March 25, 1999, the price of Lao Kao was adjusted to increase one baht per bottle and colored liquor increased for 1.25 baht per bottle. Price of Chang beer was not adjusted. However, condition of compulsion about beer plus local liquor selling was adjusted to increase from former condition, namely, one dozen of Lao Kao plus 2 dozen of Chang beer, 1 dozen of colored liquor plus 1.5 dozen of Chang beer to be 1 dozen of Lao Kao plus with 3 dozen of Chang beer, 1 dozen of colored liquor plus 2.5 dozen of Chang beer respectively. This made the wholesale price from agents and sub-agents to increase at an average of 6.8 baht per bottle. This resulted in an increase in the retail price of 10 baht more per bottle. While the shop had to load the burden of an

increase of one dozen for a plus of Chang beer (Formerly, 1 dozen of colored liquor plus 1.5 dozen of Chang beer increased to be 2.5 dozen), the shops had to reduce the selling price of Chang beer by selling at a loss amounted to 60-70 baht per dozen (From the price of Chang beer 410 baht a dozen being reduced to be 350-370 baht) and sought for profit by making an increase of local liquor and colored liquor price at 4-5 baht a bottle to compensate the loss from selling of Chang beer and so on. Putting an additional proportion on the policy of increasing price adjustment every year and using of local liquor-beer selling compulsive strategy is used when the situation of competition is rigorous. Distributors and shops made an adjustment to increase the price of Lao Kao and colored liquor in order to seek the profit for compensating the dumped price of Chang price to 4 bottles per one hundred baht or 5 bottles per 100 baht and so on. Beer plus local liquor selling compulsive strategy and policy of price adjustment increasing every year were used in order to complement with the necessity of shops to dump the price of Chang beer to a minimum to accelerate the release of stock remaining products. Also, the mechanism of local liquor and beer prices were not in compliance with the demand and supply of the market. On the contrary, it was dependent on the policy concerning beer plus local liquor selling of group from Suramaharaj company Limited and from the group of Surathip Company Limited who were a monopolizer of marketing mechanism, which was not corresponding to the Trading competition as written in Act of 1999 (announced in the Royal gazette on March 31, 1999).

Boonrawd Brewery Company, as a producer of Singha, Leo and Super Leo beer was affected from Chang beer plus local liquor selling strategy, its sales volume has greatly reduced. Boonrawd Brewery Company claimed for a fair treatment with reference to the trading competition board of committee (Ministry of Commerce) in 1999 in order to enforce trading to be in compliance with Trading competition Act (Effective from April 30, 1999) which the purpose is to: (1) Encourage business operation to be liberalized and (2) Prevent the occurrence of unfair treatment in business operation. The purpose was expected by the Boonrawd Brewery Company, Surathip Company and Thai Beer (1991) Company to revise and stop the beer plus local liquor selling compulsion. The growth of Chang beer was continuous. In 1999, Chang beer was produced for distribution up to 600 million liters and in the first quarter (January – March 2000), it was produced for distribution in the amount of about 180 million liters having the market share of about 60%. An achievement of Chang beer was derived from conducting marketing practice by: (1) For beer plus local liquor selling compulsive strategy in 2000, a group of 43 companies produced new local liquor in the brand named “Mungkorn Thong liquor”, and adjusted the proportion of compulsion concerning beer plus local liquor selling. Mungkorn thong local liquor has to have a fixed formula for the beer plus local liquor selling, (2) Chang beer received a gold medal award from International beer competition fair in Australia in 1998, (3) Retail selling price of Chang beer was suitable for economic slowdown situations and in positioning in the market thoroughly, and (4) Arrangement of promotional activity such as the casting of lots and proper public relations and so on.

• **Promotion Strategy.** Thai Beer (1991) Company launched Chang beer for distribution in March 1995 and arranged promotion activity. Promotion done was the arrangement campaign of Chang beer Treasure trove valued up to 500 million baht for the period of five years commencing from year 1996 (one year round of Chang beer). Another was the use of caps of Chang beer for casting lots with numerous awards, with this, there were drinkers throughout the country who were interested in sending caps of Chang beer. It has reached in volume of more than three tons of caps for scrambling of rewards. In April 1999, there was a celebration of country style concert of gold medal award Chang beer travel. This was to show in ten provinces in the northeastern part of Thailand that by bringing caps of Chang beer in exchange with seat cards, and it was opened to watch free of charge for those who stand in peripheral areas. The objective was to: (1) To make augmentation to sales volume as much as possible, (2) To approach consumers, (3) To return profit to consumers. Thai Beer (1991) Company used personal confrontation strategy by providing girl staff to contact closely with consumers in a positive manner at food shops. Numerous entertainment places in the night time in Nakornrachasima province could be a good case study for testing and could be a successful area for further extension country wide. As the company provided training in English methods

of beer introduction and stimulation of sales volume to girl staff, this complemented the result of Chang beer in receiving a global gold medal award, it made consumers in Nakornrachasima province turned to drink Chang beer.

Advertising: Objectives in advertising were to: (1) To augment the sales volume of Chang beer at the most possibilities, (2) Constitute brand awareness for purchasing purposes, (3) Make a repeat concerning the gold medal award received by Chang beer, and (4) Approach target groups by television advertisement, provide pictures of country song of gold medal award received by Chang beer in order to make a repeat in the selling point using the Samcha rhythm composed and sung by a hit singer “Ad Karabao”, coupled with a crowd who drank Chang beer having fun. The budget in the advertising of Chang beer was classified according to various media.

In the primary stage, budget for advertising and public relations, including a variety of casting lot arrangements was for Chang beer to enable to enter into the market rapidly. Chang beer was reasonably successful at an early stage. As economic conditions were extremely depressed and the purchasing power of drinkers diminished consequently, selling at a low price of Chang beer played a more important role in the beer market. This took advantage over other competitors resulting in a reduced sales volume of Singha beer. As a result of this new marketing war, both groups re-evaluated current sales and return strategies to increase market share.

• **Distribution strategy.** Chang beer was passed through marketing channels belonging to Surathip Company. The company adjusted the channels of distribution toward department stores, they increase the distribution.

6. CONCLUSION AND RECOMMENDATIONS

The market leader took and had an advantage over its competitor, by using a strategy of local liquor selling with a beer plus method, which is both a pricing strategy (dumping prices to be lower) and marketing channel extension strategy in a broad scope. This was coupled with the use of a marketing mix strategy, making a choice in using strategies to be compatible with a market where consumers have low purchasing power, cheaper prices, using marketing strategies steadily with high frequency and creating reliability in product quality. Additionally, having a large amount of capital and taking into account the consumer patterns. With these methods, it had promoted Chang beer to be the market leader.

Market leader or leaders are dominant firms in an industry with the largest market share. Many times, only one firm is acknowledged as the market leader. Market leader usually takes initiative in new product introduction, price changes, increasing distribution outlets or coverage and increasing advertisement and promotion intensity. The leader may not be admired or respected but its dominant position is obviously visible to every observer. The leader has to face challenges from competitors unless, its dominance is protected by a patent (or legal monopoly). It has to defend its position against challengers. But the first strategic choice for the leader is to take actions that expand the market for the product in general. The alternative ways for increasing the usage of a product are: finding new uses for the product and increasing the usage by existing customers. Market leaders make appropriate efforts to increase the usage of their industry product. As market expansion is generally profitable to the market leader.

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**Examining Trends of Online Luxury Goods Sales:
A Multi-Country Study**

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ABSTRACT

This study examines how technology, culture, wealth, and operation of business influence the sales of luxury goods in four countries from different regions of the world (China, South Korea, Turkey, and the United States). Consumers of luxury brands in these countries have unique overlapping characteristics and differences. Consumers are linking and adopting to new technology at a faster rate. Because they are becoming more tech-savvy, companies are adding an option for them to shop online. However, not every industry is guaranteed to succeed online. For some industries, such as luxury goods, existence of online stores may have detrimental effects on their brand equity and sales. Unlike commodity goods, luxury goods have recognizable characteristics which reflect identity and prestige for their consumers. More specifically, they are considered as art for exclusive markets and could represent one's identity, philosophy, and lifestyle. Therefore, on one hand, consumers of luxury goods show distinct, yet collective behavior, such as seeking to obtain a higher personal prestige and status through consumption. On the other hand, different cultural backgrounds of consumers lead to varying behaviors toward luxury goods consumption.

This study analyzes how the management of luxury brand online stores are impacted by traits of consumer behavior toward luxury fashion. We have developed a conceptual framework, PROVE, to examine five key factors (Penetration of Internet, Richness of a country's customers, Operations of business, Veblen effect in culture, Efficiency of market) that impact consumer behavior of luxury brands and evaluate this framework with collected macroeconomic data in the four countries and between 2005 and 2015. Our findings show that the sales of luxury goods through online distribution has been increasing, but at different rates for each country. These differences can be explained using our framework, especially through the lens of cultural influences, company operations, and market development.

Keywords: Internet, Luxury, Online Distribution, Culture, Operations

I. INTRODUCTION

Luxury brand products generate significantly sustainable revenues for companies that serve this segment. Increasing magnitude of consumers' well-off makes this segment profitable in both developed and developing countries. Scholars (i.e., Dall'Olmo Riley & Lacroix, 2003; Okonkwo, 2010; Chevalier & Gutsatz, 2012) have examined methods of reaching out and serving these consumers and partially adjusting to their personal and cultural characteristics. Customers who buy luxury goods seek to find perhaps prestige, identity, and culture from their purchases (Okonkwo, 2009). They acquire luxury goods not necessarily because they need them, but because they perhaps want to obtain a higher personal prestige and status through consumption. One of the motivations comes from a desire to impress and differentiate themselves from others in the community by showing that they are wealthy enough to purchase such items. This is why high brand awareness could be detrimental to a luxury fashion brand equity. Luxury goods are often consumed in public contexts such as parties and receptions. When a product is too widely used among consumers, it devalues the exclusivity that promotes the owner's social position. Therefore, luxury fashion brands try to keep a tight control over brand diffusion and maintain their prestigious image. A well-managed luxury brand is "desired by all, consumed only by the happy few" (Dall'Olmo Riley & Lacroix, 2003).

The “rarity principle” made it difficult for luxury brands to incorporate the Internet as one of their distribution channels. More in-store distribution in general retailing is converting to e-retailing, yet the transition is slower for the luxury goods industry (Euromonitor International, 2015c). The hostility and suspicion that the luxury industry expressed toward accommodating the Internet as one of their distribution channels originated from the perspective of limiting the capability of the Internet as mass appealing, highly accessible and available, virtual, free, and “one-formula-fits-all” (Chevalier & Gutsatz, 2012; Okonkwo, 2010). These characteristics and cultures are rarely compatible with those of luxury industry, where perfection, innovation, and exclusivity are sought.

The luxury industry had moved on from its slow online sales, particularly due to economic downturn in 2008, which market demanded brands to pursue sustainable strategies including investigating in e-retail and social media marketing (Okonkwo, 2010). The success of “Yoox.com” has been a trigger for the luxury industry to consider starting online appearances (Chevalier & Gutsatz, 2012). Since 2006, some of the luxury brands have become significantly more engaged in adopting social and interactive, so called, Web 2.0 technologies (Bjørn-Andersen & Hansen, 2011). Therefore, pursuing successful strategies for online sale were investigated. Companies have begun to create a well-integrated online presence that is consistent with the brand images they have created and managed until now.

Luxury goods have recognizably different characteristics from commodity goods. More specifically, they are considered as art for exclusive markets and could represent one’s identity, philosophy, and lifestyle (Okonkwo, 2009). Therefore, on one hand, consumers of luxury goods show distinct, yet collective behavior, such as seeking to obtain a higher personal prestige and status through consumption. On the other hand, different cultural backgrounds of consumers lead to varying behaviors toward luxury goods consumption as cultural differences significantly impact consumer behavior. Cultural factors play an equally important role as the income, which is often considered as the limiting factor for purchasing luxury goods, and the interaction between these two variables better explain the propensity to purchase luxury goods (Dubois & Duquesne, 1993).

Most of the empirical studies in this field have used survey questionnaires in examining brand valuation of customers. Cultural characteristics and trends of consumers are seldom investigated using macro and aggregate national-level data. According to our literature survey this study is among the first empirical research that use such a multi-country database and examine how the Internet, cultural factors, and companies’ strategy can influence luxury product sales. We have chosen four countries for this study, United States, Korea, China, and Turkey, which represent three important regions, Western, Eastern Asia, and Middle East, and have different cultural and economic characteristics. Consumers of luxury brands in these countries have overlapping characteristics meanwhile unique differences. Luxury brand companies do not necessary apply the same marketing and sales strategy for all countries. For example, in the United States consumers are spending significantly more than in China, even in luxury brand.

We have collected data from Euromonitor Passport on total and luxury goods retailing market sizes, online distribution channel usage, Internet penetration rate, GDP, and total population in the four countries. By using this unique macroeconomic dataset at the national-level and analyzing consumers’ behavior in luxury goods, we are filling the gap in the field of luxury marketing. The analysis focuses on identifying the discrepancies in online luxury goods consumption patterns among these countries, and finding underlying economic, cultural, and business factors impacting the sales. Comparing different regions with different cultures and habits will provide us with relevant and applicable implications for successfully operating online by tailoring marketing strategies to the targeted groups.

The paper is organized as follows. Section II reviews literature in the related areas and points out the gap in the existing literature between online luxury brand sales and the role that culture and firm strategy play in it. Section III discusses characteristics of the dataset. Section IV and V describes the model and analyzes the empirical results. Section VI concludes the paper and presents shortcomings of the paper.

II. LITERATURE SURVEY

Scholars (i.e., Dall'Olmo Riley & Lacroix, 2003; Okonkwo, 2009; Okonkwo, 2010; Chevalier & Gutsatz, 2012) have investigated personal and cultural characteristics and means of accessing consumers of luxury goods. Luxury good is defined as "a work of art designed for an exclusive market" (Nueno & Quelch, 1998). It is also an identity, philosophy and culture that can neither be ignored nor compromised (Okonkwo, 2009). The goal of luxury goods is not to provide customers with the most utilitarian values. Thus, its ratio of functionality to price is low and the ratio of intangible and situational utility to price is high (Nueno & Quelch, 1998). There are two different values associated with luxury goods, which are the psychological and the concrete. Psychological or perceptual value explains how luxury goods act as a symbol, often times as status symbol with implicit meaning and personality. The experience of high involvement in consuming luxury goods aligns with a person's subjective "self-concept". On the other hand, concrete values of luxury goods are demonstrated in excellent quality, craftsmanship, premium price, distinctiveness, and exclusivity associated with the actual product (Fionda & Moore, 2009; Nueno & Quelch, 1998; Okonkwo, 2009; Phau & Prendergast, 2000; Seringhaus, 2005). The instrumental performance of luxury goods can be identified through a mix of functionalism, experientialism, and symbolic interactionism, which are heavily related to socio-economic context in which people consume luxury goods (Vickers & Renand, 2003).

In the luxury market, status and conspicuousness are the two dimensions that can measure the prestige of a brand. The status of a brand is associated with both internal (self-satisfaction) and external (display) reasons for consumption, whereas conspicuousness is purely related to external reasons. They overlap often times, yet there are instances when discrepancies between the two constructs exist. When there are discrepancies, rather than a higher conspicuousness conducting a lower status, the lower perceived status would drag down the higher conspicuousness, eventually resulting in brand contamination. Traditional luxury brands relying on their status as a selling point with a marketing strategy of moving toward mass market could result in brand dilution (O'cass & McEwen, 2004; Truong, Simmons, McColl, & Kitchen, 2008).

Therefore, marketing luxury brands should differ from general marketing. An extent of actual or virtual inaccessibility for purchase is necessary in luxury marketing because hindrance brings about greater desire (Kapferer & Bastien, 2009). As launching an online store is a means to reach out to more customers, many of the luxury brand managers have thought that the high brand image of a luxury brand may be tarnished.

Although many experts believe that globalization leads to greater homogeneity in cultures, some nations and cultures tend to keep traditions that highlight identity and prestige more than others. Oftentimes, they are cultures and regions that are resistant to globalization and evolution for different reasons and find identities within their own cultures. Kluckhohn and Strodtbeck (1961) define culture as "a shared, commonly held body of beliefs and values that define the "shoulds" and "oughts" of life." Hall (1989) defines culture as "the way of life of a people, the sum of their learned behavior patterns, attitudes and material things." Cultures are models, templates, and the medium we live in, like the air we breathe. Culture is innate, but at the same time, learned because we are born with the physical necessity and capacity to specialize our bodies, brains, and hearts in line with cultural patterns. Culture is living, interlocking system that where one part is touched, the rest moves. Culture is shared, created and maintained through relationship. Culture is used to differentiate one group from another. In other words, division into groups comes first, and deliberate differentiation via cultural symbols comes second. Therefore, Hall's ideas of cultures are systems that "extend" the abilities of the human being (Hall, 1989).

Unlike the commodity goods consumers who make purchase primarily according to their needs, luxury goods consumers buy because they are more interested in the values that luxury goods bring them. On top of financial and functional values, luxury customers consider individual and social perceptions. Customers' perception about a luxury brand is related to purchasing motivation, recommendation to others, and

willingness to accept premium pricing (Hennigs, Wiedmann, Klarmann, & Behrens, 2015). Motivations for purchase come from the desire to impress and to make themselves different from others through consumption. They believe that consuming luxury goods can bring them a higher personal prestige and status. This display-oriented behavior is called “Veblen effect”. Bagwell and Bernheim (1996) articulated the Veblen Effects as a theory of conspicuous consumption. Interpersonal influences on luxury goods purchase intention could vary among different countries, and brand image can play the role as a moderator between normative influences (conforming to others’ expectations) and purchase intentions (Shukla, 2011). According to Phau and Prendergast (2000), the trend of conspicuous consumption is more distinct in Asian countries. Types of conspicuousness observed from luxury goods consumers can be further divided into four segments: materialists, functionalists, prestige-seekers, and hedonists (Wiedmann, Hennigs, & Siebels, 2009).

As the Internet channel is widely perceived as a medium for mass distribution, it raises challenges for establishing marketing strategies in globalization and democratization of the brand. Product portfolio, distribution channels, and brand image communication can be adjusted to gain higher brand awareness in the market. Lines of affordable entry-level products could be added to democratize the brand to a certain extent. Still, these opportunities come at the price of brand names, luxury brands’ most import assets (Nueno & Quelch, 1998).

Both luxury brand managers and consumers agree that shopping online for luxury goods cannot substitute the “pleasure experience” of physical stores. Experiential marketing can give marketers opportunities to incorporate unique characteristics of luxury consumption in marketing strategies (Atwal & Williams, 2009). But online shopping removes spontaneity of shopping along with the pleasure of feeling and touching the materials, human contact, and services. Also, being exposed to luxury brands’ websites did not create a sense of relationship between customers and brands. It is plausible that the Internet could fulfill an information and communication role, but not be utilized as a channel for customer acquisition (Dall’Olmo Riley & Lacroix, 2003). E-retailers assume that convenience, better price, wider selection, cost, trust and security, and uncertainty would be the causes driving online luxury goods sales. On the other hand, enjoyment, delivery time, and financial risk would be the results of online luxury goods sales. They perceive wider selection would be the leading benefit, whereas security would be the biggest concern (Lee & Wu, 2014).

Most of the recent scholarly articles related to selling luxury brands online no longer focus on questioning whether or not they should use the Internet as a channel for sales, but on studying how to communicate their brand with their customers in this process. Contrary to a common belief that online distribution of luxury goods will deteriorate brands’ concept of exclusiveness, online accessibility and explicit price display are found to have no significant effect on consumer perceived scarcity. Therefore, brand desirability is not diluted by luxury goods online presence. Moreover, online accessibility enhances shopping convenience, which results in an increased willingness-to-buy (Kluge & Fassnacht, 2015). Some even argue that failure to incorporate the Internet as a complement to in-store retailing would be one of the biggest threats for luxury brands these days. Online existence gives luxury brands an opportunity to become the official voice for their brands on the Internet, thus, diminishing the negative impacts on brand equity from “third party information sources” (Hennigs, Wiedmann, & Klarmann, 2012).

The Internet provides the luxury goods industry numerous opportunities to innovate through its unique features. It is a multidimensional channel with multiple functionalities and should be regarded as indispensable for the luxury goods industry as it is for other industries. Despite the preconception that the nature of luxury brands is not suitable for online environments, various opportunities facilitated by the Internet should be used in an integrated manner (Chevalier & Gutsatz, 2012; Okonkwo, 2009). Luxury brands’ current uses of websites as a part of communication strategies can be grouped into four types (Traditional E-shops, Artistic E-shops, Luxury Interactive, Traditionalists) according to their e-retailing function, interactivity, and usability (Geerts, 2013). New and interactive applications of the Internet helps

to fortify the core values of luxury brands, yet insufficient attention could result in brand dilution (Geerts & Veg-Sala, 2011). Heine and Berghaus analyzed digital customer touchpoint opportunities that are successfully utilized by luxury brands. Digital opportunities could be better adopted by luxury brands when there are holistic strategies that tie online tools to their brand image and story, and that bring customers real benefits (Heine & Berghaus, 2014).

In addition to websites and e-retailing, luxury fashion brands' social media marketing activities can enhance customer equity by offering free contents, social network activities, and customized information. Customer relationship is created through active communication via social media platforms, which positively affects value equity, relationship equity, and brand equity of a luxury brand. Solid value equity and brand equity positively influence purchase intention, which then relates to positive customer equity (Kim & Ko, 2012). Chu and Kamal's study showed that users who are heavily engaged with social media are more likely to show positive behaviors toward social media advertisements. Also, high brand consciousness and luxury goods purchase intention levels were correlated with positive beliefs about social media advertisements, indicating that using social media to build markets for luxury brands among the younger and potential customer segment could be beneficial (Chu & Kamal, 2011). For a luxury brand, having an online presence could help them build up solid relationships with customers by bring in human component of the customers, such as empathy. Nevertheless, it cannot be assumed that online presence equals to online sales channel.

Online shoppers appreciate the economic values they receive when purchasing luxury goods through the Internet. On the other hand, in-store shoppers are heavy buyers who seek product quality and conspicuousness. They enjoy the customer service and overall shopping experience they get from brick and mortar stores, and were concerned about counterfeit goods and warranty issues (Park & Kim, 2011). The factors that motivate shopping behavior of luxury customers are different for those who shop online and in-store. Online luxury shoppers value convenience, price, product availability, online shopping attitude, and online trust, whereas in-store shoppers consider aesthetic appeal, store trust, shopping experience, customer service, and sense of power to be the most important factors. Trust is an important issue in luxury shopping as a large amount of money is involved in purchasing. Shoppers online and in-store demonstrate different behavior regarding trust. Online shoppers show trust toward online customer reviews and retailers, yet in-store customers exhibit trust toward tangible environment (Brun, Liu, C. Burns, & Hou, 2013). Nevertheless, in countries such as the UAE where regional merchants are not trusted because of unguaranteed product quality, warranties, and returns (Vel & Rodrigues, 2013), the types of trust that customers demonstrate could differ by cultures.

III. DATA

The dataset for this study comes from "Economies and Consumers Annual Data", "Market Sizes", and "Distribution" reports on Euromonitor Passport. Information on total retailing market size, luxury goods retailing market size, online distribution channel usage in general and in luxury retailing, Internet penetration rate, Internet users, GDP, and total population in China, South Korea, Turkey, and the United States were collected. These variables were selected to investigate the trend and relationship between the Internet, culture and luxury goods sales in these diverse countries. Farrell, Gersch, & Stephenson (2006) have shown that macroeconomics data, such as GDP, are related to individual and family spending patterns. GDP can also be a point of comparison for growth between a specific market sector and the overall economy within a country (Silverstein, Fiske, & Butman, 2008).

China, South Korea, Turkey, and the United States were selected for comparison because these four countries have both similar and distinct characteristics. For instance, the levels in the Internet penetration rate and per capita GDP in these countries represent different economic development levels, and the fact that these countries are from different regions of the world with very different cultural backgrounds will help explain underlying factors of the variability in the online luxury goods distribution and sales.

Data regarding Internet usage, retailing market, luxury market, population, and economic indicators for these countries were retrieved from Euromonitor Passport database. For comparison purposes, all currencies were converted to US dollars using year-on-year exchange rates and it is for the period of 2005 and 2015 with the exception of luxury market size and luxury distribution channel data, which were collected for the period of 2005 to 2015 (Euromonitor International, 2015a, 2015b, 2015c). Therefore, our analysis is based on the period of 2005 to 2015 which is eleven year observation. Table 1 below shows definitions of the variables used for this study.

TABLE 1
DEFINITIONS OF VARIABLES IN THE STUDY

Variable	Definition
Total Retailing Market Size	The value of goods both new and used to the public for household or personal use. The following specialist retailers are excluded: motor vehicles, motorcycles, vehicle parts, fuel, foodservice, rental and hire, and wholesale industries (in US million dollars).
% Internet Retailing Distribution	The percentage of consumer goods sales to the public on the Internet. It includes pure online sales on websites and Internet sales of store-based retailers. Sales amount is attributed to consumer's country, rather than to retailer's location. The following types of sales are excluded: consumer-to-consumer sales, motor vehicles, motorcycles, vehicle parts, events tickets, travel, delivery services, rental services, returns, unpaid invoices, and click-and-collect order payments made in-store.
Luxury Market Size	The value of the retailing market size for the luxury goods industry, defined as "the aggregation of Designer Apparel (Ready-to-Wear), Fine Wines/Champagne and Spirits, Luxury Accessories, Luxury Electronic Gadgets, Luxury Jewelry and Timepieces, Luxury Cigars, Luxury Travel Goods, Luxury Writing Instruments and Stationery and Super Premium Beauty and Personal Care" (in US million dollars).
% Internet Luxury Distribution	The percentage of Internet retailing distribution specific to luxury goods industry.
Internet User	The number of people older than five who have access to the world-wide network using Internet enabled computers at home, work, internet cafes, or cellular phones (in thousands).
% Population Using the Internet	The percentage of people older than five who have access to the world-wide network using Internet enabled computers at home, work, internet cafes, or cellular phones.
GDP	"The sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources" (in US million dollars).
Total Population	The number of individuals recorded to a specific geographical area based on the "place of residence." The number is recorded in thousands (in thousands).

IV. MODEL

The goals of this study are to analyze the increases of luxury product online sales using macroeconomic data and explore various factors that may contribute to these increases. For the first goal, we have collected

sales data of luxury goods from different regions of the world in different time periods. We are interested in better understanding the patterns of online sales of luxury goods. We are also interested in examining whether the online sales of luxury goods in different countries demonstrate different patterns. Note that the different countries we tested have significantly different total market sizes. We, therefore, use the relative measurement, % Internet Luxury Distribution, in the study. With this relative measurement, we draw a time-series curve on the period of 2005 to 2015 for each of the four countries. Applying correlation analysis to the four curves provides us with both quantitative and qualitative insights on the similarities and disparities of the online sales of luxury goods in various countries.

The second goal of our research is to explore contributing factors that result in different online sales patterns for luxury goods. From the existing literature, we identify the following possible factors:

- **P**enetration of Internet: the higher the penetration, the higher the possibility for online sales. We use the variable, % Population Using the Internet, to measure this factor.
- **R**ichness of a country's customers: the wealthier the customers, the higher the possibility for online sales. We use per capita GDP, GDP divided by the Total Population, to measure this factor.
- **O**perations of Business: the level of operations of business is a microeconomic measurement, reflecting the luxury good industry's strategies towards online sales. The more innovative the operations are in prompting online sales, the higher the possibility is for online sales.
- **V**eblen effect in Culture: as the literature indicates, Veblen effect reflects consumers' attitudes toward conspicuous consumption and is a measurement driven by cultural characteristics. The higher the Veblen effect observed in a culture, the higher the possibility for luxury goods sales.
- **E**fficiency of Market. Efficiency, as a macroeconomic measurement, represents whether a country's market is well developed or at its developing stage. For example, one would argue that the market in the US is much more efficient than that in China in terms of customer protection and market regulations. The higher the efficiency demonstrated by a country's market, the higher the possibility for the sales of luxury goods.

We call this five factor framework as **PROVE** model, each letter representing the first letter of the five factors. In general, the PROVE model can be presented in the following formulation:

$$\% \text{ Internet Luxury Distribution} = \text{Function} (P, R, O, V, E) \quad (1)$$

We consider the first two factors, **P**enetration of Internet and **R**ichness of a country's customers, as the most direct factors on the luxury goods online sales. Therefore, the first question we plan to examine is whether the two factors alone are sufficient to explain the patterns demonstrated by luxury goods online sales. Particularly, we are interested in examining the following linear form of the two factors:

$$\% \text{ Internet Luxury Distribution} = aP + bR + \varepsilon \quad (2)$$

In formulation (2), a and b represent the coefficients of the Internet measure and the wealth measure, respectively, and ε is a random variable whose expectation value is 0. Applying regression analysis on the three sets of macroeconomic data, % Internet Luxury Distribution, % Population Using the Internet, and per capita GDP, provides us with an opportunity to evaluate whether a linear form can accurately explain the relationship between the independent variables and the dependent variable.

The other factors, O , V , and E , can be quantified by level variables. A higher level value of a variable represents an advanced status of the variable, therefore resulting in higher values of the objective. The impacts of these level variables could be linear or nonlinear. Particularly, as the existing literature suggested, the cultures are systems that "extend" the abilities of the human being (Hall, 1989). We expect that the culturally relevant variable, **V**eblen effect, influences other variables in a non-linear way. Both of

the following formula could be possible ways:

$$\% \text{ Internet Luxury Distribution} = dV^* (aP + bR + cO + eE) + \varepsilon \quad (3a)$$

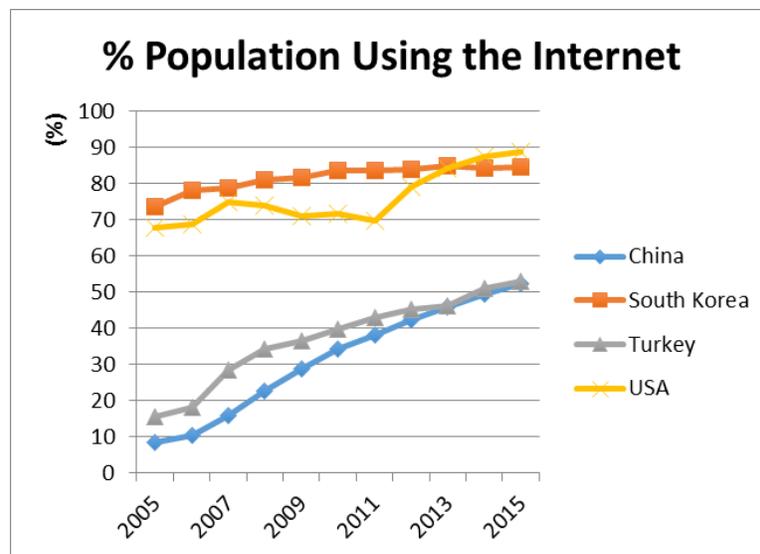
$$\% \text{ Internet Luxury Distribution} = (aP + bR + cO + eE)^{dV} + \varepsilon \quad (3b)$$

In formula (3a) and (3b), the coefficients of O , V , and E are c , d , e , respectively. In (3a), the cultural factor impacts in a multiplier form while in (3b) it has an exponential impact on other factors.

V. EMPIRICAL RESULTS

Internet penetration rates, measured in terms of the percentage of population using the Internet, are shown in Figure 1. In South Korea and the US, the Internet penetration is almost saturated with 84.70% and 88.70% of total population using the Internet in 2015, respectively. In the US, the percentage of Internet users had shown a noticeable drop between 2008 and 2011 and resumed its growth afterwards. On the other hand, Internet penetration rates in China and Turkey are actively growing and there is still room for growth. In 2015, 52.20% of the Chinese population and 53.10% of the Turkish population used the Internet (Euromonitor International, 2015b).

FIGURE 1
PERCENTAGE OF POPULATION USING THE INTERNET



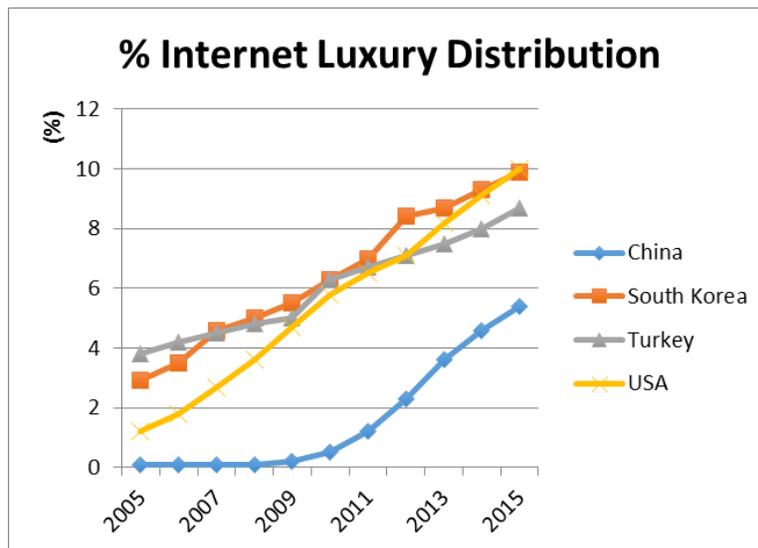
Retailing market sizes show an upward trend for all countries except for Turkey, where the size is decreasing after a peak in 2008. The US has the largest retailing market size (\$2.9 trillion, 2015) followed by China (\$2.1 trillion), South Korea (\$226.7 billion), and Turkey (\$169.2 billion). South Korean retailing market size surpassed that of Turkish in 2011 (Euromonitor International, 2015c).

Internet retailing markets in all four countries show an upward trend for growth. The Chinese market is the most rapidly growing and in 2015, it overtook the lead from the American market (\$271.0 billion) with \$293.0 billion. South Korean Internet retailing market had a drop in 2009. South Korea has the highest percentage of Internet retailing distribution (15.09%), followed by China (13.82%), the US (9.27%), and Turkey (2.10%). China had the lowest percentage until 2009, but it got ahead of Turkey in 2010 and the US in 2014. Also, it shows the most rapid conversion toward online distribution channel (Euromonitor International, 2015a, 2015c).

The size of American luxury goods retailing market is the largest among the four with a sales of \$79.3 billion made in 2015. It is followed by China (\$22.5 billion), South Korea (\$10.8 billion), and Turkey (\$2.2 billion). All four markets showed an upward trend for growth. In the US, sales significantly declined in 2008 and 2009, reaching the lowest point in 2009. South Korea also showed market size decrease during the same time period, yet the market size growth expedited afterwards. China showed constant market size increase and the speed of growth has been slowing down since 2013. Turkey had frequent ups and downs, alternating almost every year (Euromonitor International, 2015c).

As shown in Figure 2, the luxury goods online market size growth shows an upward trend for all four countries, yet the speed of growth differs for each country. Online sales in China and the US have been increasing much faster than those of South Korea and Turkey. The speed of market size growth accelerated in 2009 for the US, and in 2010 for China. The size of Chinese online luxury goods market exceeded that of South Korean in 2014. South Korean online luxury goods market showed a slower growth in 2015 compared to the previous five years (Euromonitor International, 2015c).

FIGURE 2
PERCENTAGE OF INTERNET LUXURY DISTRIBUTION



In terms of luxury goods distribution channels, all four countries are positive toward incorporating the online channel as evidenced by the increase in the percentage of luxury goods distributed on the Internet. The South Korean, Turkish, and American markets show similar leading trend, whereas Chinese market is a late-mover. Turkey had been in the lead in the earlier days from 2005 (3.8%) to 2006 (4.2%). After that, South Korea was in the lead until 2014 with 9.3% of luxury goods sold online in 2014. In 2015, the US online luxury market took the lead with 10.0% of luxury goods Internet sales, slightly outperforming the South Korean market by 0.1 percentage point. China has been catching up with South Korean and the US and the speed of growth accelerated since 2010 (Euromonitor International, 2015a).

During the 2008 Financial Crisis, total sales of luxury goods fell from \$62.7 billion in 2007 to \$59.5 billion in 2008 and \$52.5 billion in 2009. Nevertheless, both the online luxury goods market size was constantly growing, and a larger percentage of the total luxury goods were distributed via the Internet channel. This trend corresponds with the finding that the economic recession impacts the way customers recognize the value in luxury goods, and thus result in increased use of the Internet for searching and purchasing luxury (Okonkwo, 2010).

In addition, per capita GDP was calculated in US dollars. From 2005 to 2015, per capita GDP is the highest in the US (\$55,776 in 2015), followed by South Korea (\$27,281), Turkey (\$9,221), and China (\$7,949). In the US, South Korea, and China, per capita GDP values are increasing, whereas in Turkey, it is decreasing since 2014. Decrease in per capita GDP appeared in 2009 in the US and Turkey, and between 2008 and 2009 in South Korea. However, per capita GDP in China showed constant growth (Euromonitor International, 2015b).

We now examine how similar and different of these increasing curves are in different countries. To quantify the comparison, we conduct a correlation analysis on these curves. The correlation analysis of these growth curves shows that the growth curves of the US with Korea and Turkey are highly correlated, more than 0.99 for both. Meanwhile, the curve of China is noticeably different from the curves of other countries: the correlation values between China and each of the three countries are around 0.91. This suggests that the growth patterns of the US, South Korea, and Turkey are similar while China's growth pattern demonstrates some unique features.

We further examine the relationship between the dependent variable, Percentage of Internet Luxury Distribution, and the two contributing variables, Penetration of Internet and Richness of a country's customers through a regression analysis with the form of formulation (2). The results indicate that the residual values, ϵ , are not randomly scattered within a rectangle. Therefore, linearity assumption is violated. Thus, the luxury goods online sales cannot be explained simply by the Internet and the wealth factors. Other indirect factors, such as culture, business strategy, and market development may also play important roles in forming the sales patterns, and more complex formula, such as (3a) or (3b), may be needed.

Examining Figure 2 further sheds light on how the other three factors, Operations of Business, Veblen effect in Culture, and Efficiency of Market, influence the growth curves in different countries. A striking feature as we notice in Figure 2 is that South Korea has been the leader of luxury goods online sales for a long time. Together with South Korea's high Internet penetration rate, the Veblen effect in Culture may be a driving factor to this result. Consistent with the results of Phau and Prendergast (2000), the trend of conspicuous consumption is more distinct in this well-developed Asian country. In addition, the impact of the cultural factor seems nonlinear, but a second factor over other factors. This suggests that the formula (3a) or (3b) might be proper to use. The impact of Operations of Business can also be clearly traced in comparison between Figure 1 and Figure 2. While the increases of Internet penetration have been flattening in South Korea and the US over the years and the penetration rates are almost saturated in 2015, the two countries' online sales of luxury goods have been increasing in a much sharper rate even during the economic downturn period around 2008. Such disproportional increases for the Internet sales are coincident with the aggressive Internet promotion strategies adopted by many luxury goods companies in recent years. Therefore, the fast increases in the two countries might be driven by the successful Operations of Business factor. As far as the Efficiency of Market is concerned, we may notice this factor when examining the different growth curves of China and Turkey. While the two countries' Internet penetration rates increase in a similar pattern, Turkey's luxury goods online sales have been remaining higher levels than those of China in a decade. The relevantly more efficient market in Turkey, particularly the protection to customer online purchases, might be a factor to explain the difference.

VI. CONCLUSION

The aim of this paper was to examine the trend of luxury goods sales on the Internet in China, South Korea, Turkey, and the United States and to find underlying economic, business, and cultural factors contributing to such phenomena. Also, we have tested whether or not there are significant differences between online sales and offline sales of luxury goods.

Our study formed a conceptual framework, PROVE, to explain the five underlying factors that may

contribute to luxury good online sales. Using the economic data from different time periods and different countries, we adopted both quantitative and qualitative measurements to assess the implications of the framework. Our study showed that the most direct measurements on Internet and wealth, the Penetration of Internet and the Richness of a country's customers are not sufficient to account for all the trends observed in the data, nor was it proper to use a simple linear regression model. Other indirect, but equally important factors, including Operations of Business, Veblen effect in Culture, and Efficiency of Market, and more complex and nonlinear quantitative models would be needed to build comprehensive understanding of the problem.

This study is unique in that it used aggregated, national-level macroeconomic indicators, such as per capita GDP, Internet penetration rate, and retailing market size to explain the discrepancies in different online luxury goods markets around the world. Our empirical results show strong correlation between economic, business, and cultural factors and the online luxury sales trends. We intend to evaluate the PROVE framework in a more rigorous and quantitative manner. Further research is needed to quantify the three level variables, *O*, *V*, and *E*, and investigate the exact relationships between all PROVE factors and the online sales of luxury goods.

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The Effect of Marketing Mix on Sales Volume in SMEs in Rwanda: Case Study of Kimironko Commercial Centre

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ABSTRACT

This research aimed to investigate the “effect of the marketing mix on sales volume in SMEs in Rwanda the case study of Kimironko Commercial Centre (KCC)”. The objectives were to examine the impact of: a product, price, place and promotion on the sales volume. We wanted to determine whether the marketing mix enhances the customers’ need and to find out the extent to which it affect the sales volume in SMEs at KCC. The findings of this study show that there is a low level of marketing practices in SMEs of KCC, and therefore, many small businesses fail and close few days after their start up. Where some companies do not use marketing strategies that links companies to the customers they serve. This is characterized by less marketing research, communication with and feedback from those customers. Without consistent and direct interaction with the people you plan to sell your products and services to, it is difficult for a company to succeed in business. The marketing mix is used to identify, keep and satisfy the customer. The researcher used triangulation methodology, which combines qualitative and quantitative methods and we adopted a co-relational and cross-sectional survey which are designed to illustrate the impact of the 4Ps of marketing mix on sales volume in SMEs at KCC. A sample of 70 respondents was drawn from the individual traders and companies operating within the KCC. This sample was composed of 60 sole traders and 10 others forms of business ownership. The respondents were selected from a cluster with a multiple sampling processes, for example, traders were selected using simple random techniques basing on the products they sell; and the location where they are (right side and backside of Kimironko market; and inside of Kimironko market). Other respondents were selected using snow ball sampling where the respondents from the existing sample helped the researcher to meet other respondents. Kinyarwanda language was used in conducting this research. While analyzing our data, we found that many traders in KCC do not resort to marketing strategies- they just sit and wait for the customers to come along; however, those who use one or more of the components of the marketing mix perform better (their sales volume increase faster) than those who do not.

Keywords: SMEs, Marketing mix, sales volume

1. INTRODUCTION

As it is defined by many marketers, marketing is putting the right product in right place, at the right price, at the right time. It is just needed to create a product that a particularly group of people want, put it on sale some place that those same people visit regularly, and price it at a level which matches the value they feel they get out of it; and do all at a time they want to buy.

It is evident from research that marketing mix strategies are key resource for gaining competitive advantage, but it challenging because some SMEs treat marketing as a business expense as opposed to an investment in building long-term viability. For this reason, when budgets are tight, those companies often cut first from marketing budgets, which can have negative business effects. This study investigated the effect of marketing mix on sales volume in Rwanda at Kimironko Commercial Centre (KCC).

1.1. Background of the study

Since the last decade, the republic of Rwanda is constantly involved in expressing and applying strategies to assist SME sector so that it can play its role in the economic development of this country (OECD, 2004).

After the Genocide of 1994, government has tried to increase this sector's performance by creating various organizations enabling small business operations. It is clear that the government alone cannot succeed in its efforts to make this sector healthy and successful. Institutions and other concerned bodies for small businesses emphasize the role of public private partnership to initiate various tasks including research and development (which is rare in this sector) to help entrepreneurs and owner-managers in better business operations management.

The majority of the SMEs struggle to increase productivity, organizational effectiveness, sustained competitive advantage and satisfactory rate of return on investment. It is not an easy task to achieve such kind of objectives in an economy where traditional and informal practices of business management are still applied (MINICOM, 2010).

1.2. Challenges faced by SMEs in Rwanda

According to MINICOM (2010), SMEs in Rwanda face many macro-level challenges faced by large companies, including limited transport and energy, lack of a strong insurance industry, limited financial outreach, difficulties with contract enforcement and a weak education system. Private Sector Federation in Rwanda (2012) identified the challenges faced by SMEs: the top challenge was high taxes, caused by the current tax regime. Next was the lack of customer/market knowledge, lack of capital, uncompetitive prices, access to finance and transport. They also often lack the ability to gather and process market information outside of what is immediately relevant to their current business due to lack of technical knowledge and training on how to make use of this information.

SMEs face difficulties accessing and utilizing information regarding local, regional and International pricing, a major constraint to business planning as well as about the regulatory environment in Rwanda and regionally. Among SMEs there is poor participation in the policymaking process, meaning they have little knowledge of interventions designed to assist them. SMEs have inadequate access to market information that could benefit their businesses as well as inadequate knowledge about marketing their products both nationally and internationally (Barigye, 2008).

1.3. Statement of the problem

In developing countries like Rwanda, improved marketing is often the key to economic growth and efficiency in the marketing system contributes to break the vicious cycle of poverty. Unfortunately, in Rwanda, retail sector especially among small traders like those in KCC, there are low marketing practices that cause market failure which occurs when freely-functioning markets, fail to deliver an efficient allocation of resources. Some reasons why business fail are: overexpansion, poor capital structure, overspending, lack of reserve funds, bad business location, poor execution and internal controls, an inadequate business plan, failure to change with the times, ineffective marketing and self-promotion, and underestimating the competition. (Private sector,2012)

Due to low level of marketing practice in Rwanda, especially in Kimironko Commercial Centre (KCC) many small businesses fail and close few days after their start up because there is lack of satisfaction of customers. According to IMANISHIMWE (2010:2), it has been said by the sellers that there were no sufficient buyers for their products and this resulted into lesser sales volume on one hand, and by customers complained that the price are high and not affordable on the hand. It is on this note, that we developed an interest in investigating the impact of the marketing mix on sales volume especially at KCC.

1.4 The purpose of the study

The study was carried out at KCC. It involved all activities and decision areas in relation with the marketing mix elements and how each of the 4Ps affect the sales volume of SMEs.

1.5. Objectives of the study

In order for the above research to lead to valid results, a series of issues were examined. We were, among other things, tried to examine the effect of the marketing mix (product, price, place and promotion) on the sales volume in SMEs in Rwanda, especially in KCC.

To determine the extent to which the product affects sales volumes in retail sector in Rwanda

To establish the extent to which price affects sales volume in SMEs in Rwanda

To examine the extent to which the place affects sales volume in SMEs in Rwanda

To find out to which extent promotion affects sales volume SMEs in Rwanda

2. BRIEF DESCRIPTION OF MARKETING MIX

2.1. Marketing

Marketing includes the activities of all those engaged in the transfer of goods from producer to consumer, not only those who buy and sell directly, wholesale and retail, but also those who develop, warehouse, transport, insure, finance, or promote the product, or otherwise have a hand in the process of transfer (Perreault, 2003). It is an integrated process through which companies build strong customer relationships and create value for their customers and for themselves. Marketing is used to identify the customer, to keep the customer, and to satisfy the customer (Paliwoda et al., 2008).

Marketing pertains to the interactive process that requires developing, pricing, placing and promoting goods, ideas, or services in order to facilitate exchanges between customers and sellers to satisfy the needs and wants of consumers. Thus the main idea behind is customer satisfaction. (Kotler, 2005).

2.2. Marketing strategy

A given company may hold numerous products in the marketplace, spanning numerous and sometimes wholly unrelated industries (Borden, 1984). Accordingly, a plan is required in order to manage effectively such products. Such decisions consist of the following decisions:

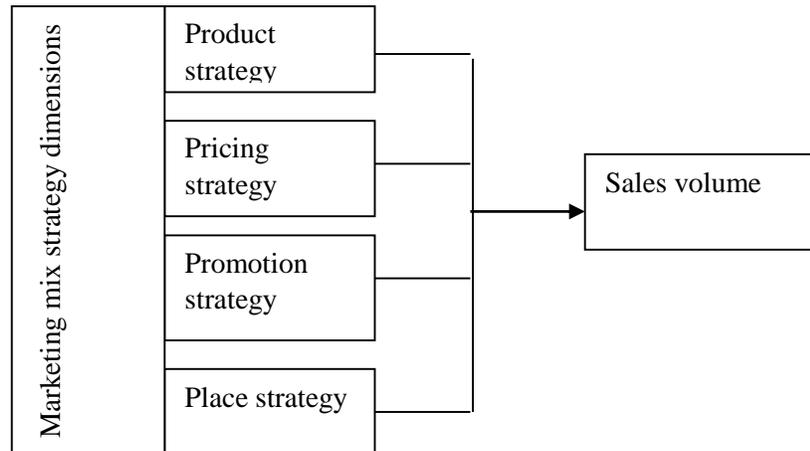
Should we (that is the company) enter a market/industry? Should we increase funding for our product (s)? Should we maintain funding for our product(s)? Should we divest or cease production of our product(s) (The economist, 2006)?

Evidently, a company needs to weigh up and ascertain how to utilize effectively its finite resource. Below are listed some prominent marketing strategy models, which seek to propose means to answer the preceding questions.

2.2.1. Marketing mix

The term marketing mix refers to the key elements that must be attended to in order to properly market a product or service; the controllable variables the company puts together to satisfy the target group (Perreault, 2003). Marketing mix is set of controllable strategic marketing tools defined as 4P's namely: product, price, place and promotion that a firm blends to produce the response it wants in the target market (Kotler, 2005). They are often designed to influence consumer decision-making and lead to profitable exchanges. Each element of the marketing mix can affect consumers in many ways (Peter & Donnelly, 2007).

FIGURE 2.1
MARKETING MIX STRATEGY DIMENSIONS CONCEPTUAL FRAMEWORK



How will you design, package and add value to the product? Product strategies. What pricing strategy is appropriate to use? Price strategies. Where will the firm locate? Place strategies. How will the firm promote its product? Promotion strategies (Chai, 2009). It is known as a “mix” because each element affects the other and the mix must overall be suitable to the target customer. For instance, high quality materials used in a product may mean that a higher selling price can be achieved; An advertising campaign carried in one area of the country requires distribution of the product to be in place in advance of the campaign to ensure there are no disappointed customers; Promotion is needed to emphasize the new features and benefits of a product (Kotler & Armstrong, 2006). We have summarized marketing strategies in the following chart below:

2.3. Sales volumes

Sales volume is the quantity of sold units of sales by a business in a certain period of time. Sales volume is the number of items a company sells during a given period, such as fiscal quarter or a year (Abah & Olohiliye, 2015). There is interconnection between concepts of sales and sales volume because total sales equal sales volume multiplied by the unit price.

2.3.1. The impact of a product on its sales volume

The product is anything that can be offered to a market for attention, acquisition, use or consumption and that might satisfy a need or want (Kotler, 2005). The product or service you offer needs to be able to meet a specific, existing marketing demand. If the market demand of a product increases, there will be an increase in sales volume (Perreault, 2003). The product decision is concerned with developing the right product for the target market.

The sales volume of a product will depend upon product decisions made. Product decisions attract much public attention and marketers make product decisions at three levels: individual product decision, product line decision, and product mix decisions (McCarty 1966).

The product life cycle (PLC) involves an attempt to identify the different stages or phases in the sales history of a product. Each phase presents different market opportunities and the challenges hence impact in different ways on the sales volume of the product.

2.3.2 The impact of price on sales volume

The price is defined as the exchange value of a product or service always expressed in money. The price is the amount of money charged for a product or service, or the sum of values that consumers exchange for the benefits of having or using the product or service (Kotler, 2005). To the consumer the price is an agreement between the seller and the buyer concerning what each is to receive (Guenzi & Troilo, 2008).

The pricing must be based on the consumer (on the demand side) just as strategies on product distribution and promotion on the consumer. Of course, costs (the supply side) are not forgotten but they are given proper place in the pricing process (Cataluna & Rondan, 2004).

The relationship between price and sales volume, reference is made to the law of demand in which the quantity demanded of a commodity is inversely related to its price *ceteris paribus* and this is explained by the demand curve where quantity demanded is a function of price $Q_d=f(P)$. Pricing for products or services that are more commonly available in the market is more elastic, meaning that unit sales will go up or down more responsively in response to price changes.

By contrast, those products that have a generally more limited availability in the market (but with strong demand) are more inelastic, meaning that price changes will not affect unit sales very much (Hakansson, et al., 2005).

For the firm to achieve its objectives of increasing the sales volume, the price of its products must be kept cheaper as possible compared to the price of its competitors' products (Uusitalo, Outi & Maija, 2007).

2.3.3 The impact of place on sales volume of a product

Goods are not produced near the users. Production points are normally at distance therefore the gap between the point of production and the place of consumption need to be bridged so as to facilitate the availability of products where they are needed (Dawes, 2004). All marketing managers want to be sure that their goods and services are available in the right quantities and locations (Perreault, 2003). Place refers to where and how the products will be distributed to consumers. It determines the distribution of the product from the point of production, to the point of consumption. Place is also concerned with all decisions involved in getting the right product to the target market's place (Amir, 2012).

Place strategy refers to how an organization will distribute the product or service they are offering to the end user. The organization must distribute the product to the user at the right place at the right time. Efficient and effective distribution is important if the organization is to meet its overall marketing objectives. If an organization underestimate a demand and customers cannot purchase products because of it, profitability will be affected. The ease and options through which you can make your product or service available to your customers will have an effect on your sales volume (Warnaby, 2004).

2.3.4. The impact of promotion on sales volume

Promotion is concerned with telling the target market or others in the channel of distribution about the right product. It is the coordinated efforts to establish channels of information and persuasion to facilitate or foster the sale of goods or services (Ailawadi, et al., 2006). It is a form of non-price competition (Perreault, 2003). Promotion can be seen as a way of closing the information gap between would be sellers and would be buyers. (Kotler, 2001). The purpose of promotion is inform about other instruments of marketing mix and to contribute to sales increase on the long term (Homburg, et al., 2008). Sales Promotion represents a set of different promotional activities that has the goal of animating customers for purchasing (Peter &

Olson, 2005). Once you have a well-defined marketing mix, try “testing” the overall business from the customer’s perspective, by asking customer focused questions: Does it meet their needs? (Product); Will they find it where they shop? (Place); Will they consider it’s priced favorably? (Price); and will the marketing communications reach them? (Promotion)

3. RESEARCH METHODOLOGY

3.1. Introduction

Research was carried out within Gasabo district among the trading centres and more particularly at Kimironko Commercial Centre. This area was selected on the basis of the following major factors: It is the largest open centre in Kigali city and as such it is an important financial activities where important transactions of goods and services take place on daily basis. It proves a wide range of the business activities and communities.

3.2 Population and sample selection

The target population of this research was SMEs of KCC. The study used a population of 140 people that was selected purposely from different types of business: food stuff, clothes sells, dairy, butchers, supermarket, stationery, hardware and cosmetic shops, restaurants, bars and hotels, beauty salons, decoration and wedding, banks and pharmacies at KCC.

This study used a sample of 70 respondents and it was of correlation research type. The respondents were selected from a cluster with a multiple sampling processes. For example traders were selected using simple random techniques basing on the products they sold and the location their businesses (inside or outside the market compound). Other respondents were selected using snow ball sampling where the respondents from the existing sample helped the researcher to meet other respondents and the outcome of the study shown the sample which gave equally reliable and representative information. Kinyarwanda language was used in conducting this research.

3.3. Sources of data and data collection instruments

A questionnaire helped the researcher to gather information about attitudes, beliefs, behaviors and characteristics of several respondents. The researcher prepared questions which were in line with the research objectives and those questions were included: open-ended questions; multiple choice questions; and closed-ended questions.

The researcher closely examined the relationship between the questions and their respective responses in order to ensure consistency, accuracy and uniformity. Quantitative techniques were used to process and analyse the collected data.

4. DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Introduction

The process of data collection covers mainly the respondents from SMEs of KCC. The sample has been purposively chosen and we have a total of 70 respondents considered as the right people to provide adequate information about this research.

4.2. Research findings, analysis and data interpretation

4.2.1. Respondents’ profile

The rate of respondents is high on both sides: 100% of every selected category; that is 60 Small business enterprises over 60 questioned representing 85.7% of the whole sample and Medium enterprises 10 over 10 representing 14.3%. Males represent 48.6% of total respondents while females represent 51.4% of total respondents. This shows how both males and females participate in business activities in KCC (see table 4.1).

The information regarding business experience of SMEs of Kimironko where 51.4% of respondents have been in business for less than 5 years; 22.9% of respondents have an experience from 5 to 10 years whereas 25.7% of respondents have been operating for more than 10 years.

The prevailing economic conditions around the globe affect to various degrees everyone, everywhere, governments and citizens, customers and traders are complaining. That is why we have been interested to know how traders in KCC are coping some of the major problems they are facing in their business. 28% of respondents said that heavy tax occupies the first place among the problems encountered by SMEs of KCC, followed by limited access to finance as said by 16 respondents over 70. Lack of market information comes in third position of the problems encountered by SMEs of Kimironko; 17.1% of respondents declared that illegal selling is another problem they face. Other problems faced by SMEs in KCC occupied 28.6%.

All problems identified above are constraints that SMEs have to struggle with on a daily basis; these problems adversely affect the business in KCC. Heavy taxes and house rent are among the limitations in use of pricing as a marketing tool to increase the sales volume. Declining consumers, due to economic conditions (economic crisis, small plots of land ...) and cycles related to the PLC theory where the same product attracts different sales volume along the period depending on stages it faces in the product life cycle. Hawking is another problem: people prefer to buy with hawkers whose prices are cheaper than those of regular traders. Theft and lack of parking are external constraints. 28.6% of respondents confirmed that there are other problems they faced in their business. Some of them are: Lack of entrepreneurial culture at KCC: the unstructured environment in which KCC operates and its inability to be open to new or innovative ideas presents a major challenge to the development of the Kimironko SMEs.

Limited technical and business skills: Many businessmen at KCC suffer from lack of technical and business skills. They identify a variety of skills gaps in areas including ICT, technical and industrial knowledge, finance, accounting and management. Limited business development services: Businesses at KCC face a lack of good quality business development services tailored to their needs. Difficulty accessing market information and markets

4.2.2. Assessing the impact of the marketing mix on the sales volume

4.2.2.1. The impact of a product on its sales volume at KCC

As we found, a product is anything that can be offered to a market for attention, acquisition, use or consumption and that might satisfy a need or want of customer.

Relationship between a product and its sales volume

After analyzing the resultants from respondents on the question asking to tell about their sales volume; we found that 48 respondents out of 70 said that their sales volume have been static during 2 years, 16 respondents out of 70 said that it was increasing and 6 respondents said that their sales volume decreased. 74.2% of respondents said that they don't resort any marketing strategy and 25.8% said that they use it (see table 4.2).

The findings of this study shows that 86% of respondents approved that the sales volume of a product is greatly influenced by the product itself and 64 respondents over 70 that is 91.4 of respondents, said that the sales volume is influenced by other factors other than the product (Like customer care, economic factors, politic and environmental factors), for them every product can be sold and bought. This means that the majority (91.4%) of the respondents don't know the importance of a good product to influence its sales. The sales volumes at KCC are low related to the products that they sell.

Reasons for choosing of a product

The findings from the table 4.3 explains the ways in which a product is able to contribute to its sales volume at KCC through its quality, utility, design and style, depending on how it is packaged, labeled and branded. Almost half of the respondents (38 over 70 respondents) said that a product is bought, first because of its quality and, then because of its utility (38 respondents over 70 respondents). The product design and style is given a third place to influence the sales volume as it is reported by 42 out 70 respondents being 60% of respondents. Branding comes fourth; packaging is fifth, whereas labeling is the sixth and last one on the list to influence sales volume of a product. Thus, shows the importance that the respondents give to each attribute or features in order to increase sales volume.

4.2.2.2 The impact of the price on the sales volume

The price of products and services often influences whether consumers will purchase them at all and, if so, which competitive offering is selected. It regulates business profits, allocates the economic resources for optimum production and distribution. The price at KCC is self-regulated because each consumer is allowed to choose freely what to buy and each producer is allowed to choose freely what to sell and how to produce it, the market settles on a product distribution and prices that are beneficial to the community as a whole.

The results of this study indicated that a big part of respondents (57.1%), that is, 40 out of 70, show that the decrease of 10% in price result into increase in sales volume less than 10%, 22 respondents said that the sales volume increases in the same percentage as a decrease in price, whereas 8 respondents out of 70 said that the increase in sales volume is more than 10% (see table 4.5). The respondents 82.9% (that is 58 respondents over 70), said that sales volume depend on other factors rather than selling price and 2.9% said that prices and sales are greatly related and 10 respondents said that the sales volume are sufficiently related to the prices.

The sellers said that there were no sufficient buyers for their products and this resulted into lesser sales volume on one hand, and by customers complained that the price are high and not affordable on the hand. This is also due to international crisis, heavy taxes, illegal selling practices (hawking) and other socio-political and economic factors.

This shows how buyers are not price sensitive; to set low price is one of the strategies to increase the sales volume is less than the decrease in price. 28.6% respondents said that the increase in prices by 10% result in decrease of sales volume more than 10%, 54.3% said that said that the sales volume decreases proportionately with the increase in price and 17.1% said that the buyers respond by reducing the purchase less than 10%. From our finding, respondents said that there are some products whose sales volume do not change with changes in price.

The information provided in the table 4.6, show that some product sales volumes do not fluctuate depending on prices fluctuations, those are foods, drugs and alcoholic drinks. This is explained by the needs satisfied by a given product, but, for beer this because the drinkers have no self-control, and hence they are non-

price sensitive. Different products have inelastic demand and the increase or decreases in prices of such products do not result into the sales volume change.

The study indicated that some products have sales volume which fluctuates significantly with prices fluctuations; those are meat, fruits, soft drinks, clothes and other luxury goods (see table 4.7). This is due to types of needs one product satisfies. For many Rwandans, meat still being considered as luxury food and fruits are for small children feeding. Soft drinks also are substituted by natural water, clothes are used for a long period and if prices of clothes increase people keep the clothes they have and do not buy new ones. For luxury goods, if their prices increase, people leave them in favor of normal goods. This shows that the price determines the sales volumes at Kimironko and the products with high elasticity of demand result in more fluctuating sales volume.

4.2.2.3. The impact of the place/location on sales volume at KCC

The study shows that all respondents agree that the place/location is one of the factors influencing the sales volume but some places are more strategic than others. This means that the importance of location of a business must be taken into accounts in any marketing projections (see table 4.8). According to the respondents, inside Kimironko market and behind Kimironko market are locations offering more sales volumes than others, followed by the right side of the Kimironko market. Near Kimironko auto part (in container) and right side of Kibagabaga road are the locations said to register less sales than others. This is because many buyers of Kimironko buy in the evening coming from work, hence they after buy at easily accessed locations where it does not matter to cross the road and to make other supplementary efforts.

4.2.2.4. Impact of the promotion on sales volume

The study shows that 51.4% of respondents know that sales volumes and promotion are related not greatly but sufficient. However 25.7% of respondents said that sales volumes are highly influenced by promotion whereas 22.9% of respondents believe that the sales volumes are due to other factors rather than promotion (table 4.10). This means that according to 51.4% of respondents; if other factors remain constant, the promotion strategies can help to increase sufficiently the sales volumes.

For 60% of respondents, personal selling is selected to be most appropriate promotion strategy, followed by none that is for 23% of respondents there is no need of promotion and for them the sales volumes are determined by factors other than promotion. Advertising occupied the 3rd place, followed by sales promotion and publicity. The media of choice is radio as it is the most accessible medium for the general public for several reasons. First, radio listening is a less costly, more accessible, and a popular mass medium for the general public where illiteracy is common. Second, radio advertising is the cheapest alternative for marketers in comparison to the reach of other mediums. Third, most people have radios on all day at home and work. Fourth, public transport such as buses and minibuses pipe the radio to loud speakers in the back of the vehicles for the entertainment of passengers. The majority of traders at KCC use billboards because are common and appear to be effective in promoting brand names. However, newspaper and TV advertising are expensive by comparisons to their reach.

Sales promotions like contests and sweepstakes have been successful for soft drink bottlers and breweries but few other marketers have adapted this method. The use of sampling and demonstrations to promote products are rare. Personal selling has great potential at KCC because of the low cost of the local labor and sales personnel should be recruited and trained locally and motivated by commissions to encourage performance.

SUMMARY OF FINDINGS, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

5.1. Summary of major findings

Considering the business experience, the majority of respondents have been in trade for less than 5 years, the respondents said that there is a low level of marketing practices in KCC, and therefore, many businesses fail and close few days after their start up. The finds show that 91.4% of respondents said that the sales volume is influenced by other factors other than product (Like customer care, economic factors, politic and environmental factors), for them every product can be sold and bought. Almost half of the respondents (38 out of 70 respondents) said that a product is bought, first because of its quality and, then because of its utility (38 respondents out 70 respondents).

The product design and style is given a third place to influence the sales volume as it is reported by 42 out 70 respondents being 60% of respondents. Branding comes fourth; packaging is fifth, whereas labeling is the sixth and last one on the list to influence sales volume of a product. Thus, shows the importance that the respondents give to each attribute or features, but they don't use them because of lack of marketing knowledge and insufficient management. SMEs at KCC face difficulties of accessing and utilizing information regarding local, regional and international pricing, a major constraint to business planning as well as about the regulatory environment in Rwanda and regionally. 28.6% respondents said that the increase in prices by 10% result in decrease of sales volume more than 10%, 54.3% said that said that the sales volume decreases proportionately with the increase in price and 17.1% said that the buyers respond by reducing the purchase less than 10%. It is covered that some products' sales volumes do not fluctuate depending on prices fluctuation on one hand (such as foods, drugs and alcoholic drinks) while others attract significant fluctuating sales volume on another hand(such as meat, fruits, soft drinks, clothes and so on). All respondents agree that the place/location is one of the factors influencing the sales volume at KCC. According to the respondents' points of view, inside Kimironko market and behind Kimironko market are locations offering more sales volumes than others, followed by the right of the Kimironko market and Near Kimironko auto part (in container) and Right Side of Kibagabaga road are the locations said to register less sales than others. According to the respondents' point of view, personal selling is said to be the most appropriate promotion strategy than others (44 % of respondents) followed by none is for 23% of respondents there is no need of promotion and for them the sales volumes are determined by other factors other than promotion. The majority of SMEs at KCC use billboards because are common and appear to be effective in promoting brand names.

Basing on the researcher observations and discussions with traders, it is discovered that there are products which attract more sales volumes in the holidays ending and commencing the years such as meat, clothes and others.

5.2. Conclusion

In this study, we have found that there is a low level of marketing practices in KCC, and therefore, many small businesses fail and close few days after their start up. Where some businesses do not use marketing strategies that links companies to the customers they serve. This is characterized by less marketing research, communication with and feedback from those customers. While analyzing our data, we found that many SMEs in KCC do not resort to marketing strategies- they just sit and wait for the customers to come along; however, those who use one or more of the components of the marketing mix perform better (their sales volume increase faster) than those who do not.

The respondents said that there were no sufficient buyers for their products and this resulted into lesser sales volume on one hand, and on the another hand, the customers complained that the price are high and not affordable. Successful marketing strategies today have become very customer centric, and this is very different from olden days. The reason for this is the vast amount of choices and options that the customer has today, coupled with the large amount of disposable income in their hands. This has increased the competitiveness between sellers vastly, and the only way they can entice customers is through effective marketing.

The product is bought because it has got a certain customer need satisfaction ability and those products with basic needs' satisfaction ability have higher chances to attract higher sales volume. The price represents the value/benefit to the consumers. The place can contribute to increase in sales volume in the sense that products are availed at the right place where they are needed. Finally, the promotion influences the sales volume in the fact that the customers are aware of offered products, where they are and at which prices they are sold. In order to optimize the sales volume, SMEs of KCC need to adjust marketing mix components correctly because all of the 4Ps contribute greatly to the sales volume as whole and there is no reason to ignore one of them or associate it with less importance in marketing plan.

5.3. Implications

The main constraints on marketing of SMEs at KCC are heavy taxes, illegal selling practices (hawking), fewer buyers due to economic conditions and cycles, theft, lack of parking for customers, houses rent are very expensive, insufficient management, marketing and technical knowledge, and corruption. These constraints have a negative impact on the seller socio-economic development. SMEs at KCC face difficulties of accessing and utilizing information regarding local, regional and international pricing, a major constraint to business planning as well as about the regulatory environment in Rwanda and regionally. The study found that the sales volume at KCC decrease and it has a negative impact on SMEs and on country in general. If the sales volumes decrease, the trader's income decreases and the country development is low.

To create the right marketing mix, SMEs have to meet the following conditions: The product has to have the right features - for example, it must look good and work well. The price must be right. Consumer will need to buy in large numbers to produce a healthy profit. The goods must be in the right place at the right time. Making sure that the goods arrive when and where they are wanted is an important operation. The target group needs to be made aware of the existence and availability of the product through promotion. Successful promotion helps a firm to spread costs over a larger output.

5.4. Recommendations

Often market failure results from consumers suffering from a lack of information about the costs and benefits of the products available in the market place. Government action can have a role in improving information to help consumers and producers value the 'true' cost and/or benefit of a good or service. The government may also offer financial assistance such as tax credits for business investment in research and development, or a reduction in corporation tax designed to promote investment and employment. SMEs of KCC are recommended to review the marketing mix regularly, as some elements will need to change as the product or service, and its market, grow, mature and adapt in an ever-changing competitive environment. It is recommended not to set necessarily lower prices but right prices in order to attract customers because sometimes customers think that lower prices are associated with lower quality

5.5. Areas for further researches

This research covered the effect of marketing mix only on the sales volume and it is known that those 4Ps can also influence other business objectives like profit level, meet or follow competition, market share and control the cash-flow, the further researchers in Rwanda could cover those resting objectives of marketing mix. These areas can be processed into a number of topics such as: The effect of the marketing mix on the profit level of the business; the roles of marketing mix to meet or follow competition; the influences of the marketing mix on market share growth; and the roles of the marketing mix to control the cash flow within an organization. The further research can be extended on other companies and locations.

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APPENDICES

TABLE 4.1
DEMOGRAPHIC FINDINGS

Characteristic	Distribution
Form of business ownership	Small business enterprises 85.7%; Medium enterprises 14.3%
Gender	48.6% male; 51.4% female
Business experiences	Less than 5 years 51.4%; between 5-10 years 22.9%; More than 10 years 25.7%
Problems encountered by SMEs at KCC	High taxes 28%; limited finance 22.9%; lack of market information 17.1%; illegal selling 11.4%; others 28.6%

Source: Primary data

TABLE 4.2
RELATIONSHIP BETWEEN A PRODUCT AND ITS SALES VOLUME

Answers	Frequency	Percentage
Greatly related	6	8.6
Sufficiently related	0	0
Not related at all	64	91.4
Total of respondents	70	100

Source: Primary data

TABLE 4.3
REASONS FOR CHOOSING OF A PRODUCT

Product attributes and features		Rank						Total
		1	2	3	4	5	6	
A	Quality	38	32	0	0	0	0	70
B	Utility/functionality	32	38	0	0	0	0	70
C	Product design and style	0	0	42	24	4	0	70
D	Packaging	0	0	6	12	42	10	70
E	Labeling	0	0	2	4	6	56	70
F	Branding	0	0	20	30	18	2	70
Total		70	70	70	70	70	70	

Source: Primary data

TABLE 4.4
THE EFFECT OF THE PRICE ON SALES VOLUME

To the question: Are there any relationships between the sales volumes and the prices of the products? We got the following answers:

Relationships between sales volume and prices	Frequency	Percentage
Greatly related	2	2.9
Sufficiently related	10	14.2
Not related at all	58	82.9
Total of respondents	70	100

TABLE 4.5
PED ANALYSIS: REACTION (RESPONSIVENESS) OF BUYERS FACE ON DECREASE IN PRICE WHEN PRICE DECREASES/ FALLS BY 10%

The following table shows in which proportions are the sales related to the prices of the product.

Increase in sales	PED	Frequency	Percentage
Less than 10%	$0 < 1$	40	57.1
10%	1	22	31.4
More than 10%	$1 < \infty$	8	11.5
Total		70	100

Source: Primary data

TABLE 4.6
PED ANALYSIS: REACTION OF BUYERS FACE ON INCREASE IN PRICE BY 10%

Decrease in sales	PED value	Frequency	Percentage
Less than 10%	$0 < 1$	12	17.1
10%	1	38	54.3
More than 10%	$1 < \infty$	20	28.6
Total		70	100

Source: Primary data

TABLE 4.6
PRODUCTS WHOSE SALES VOLUME REMAIN STABLE WHEN THE PRICE CHANGES

No	Product
1.	Sugar
2.	Rice
3.	Beans
4.	Drugs/medicines
5.	Beer

Source: primary data

TABLE 4.7
PRODUCTS WHOSE SALES VOLUMES FLUCTUATE SIGNIFICANTLY DEPENDING ON THE PRICE CHANGES

No	Product
1	Meat
2	Fruits
3	Soft drinks
4	Clothes
5	Other luxury goods

Source: Primary data

TABLE 4.8
IMPACT OF PLACE/LOCATIONS ON THE SALES VOLUME AT KCC

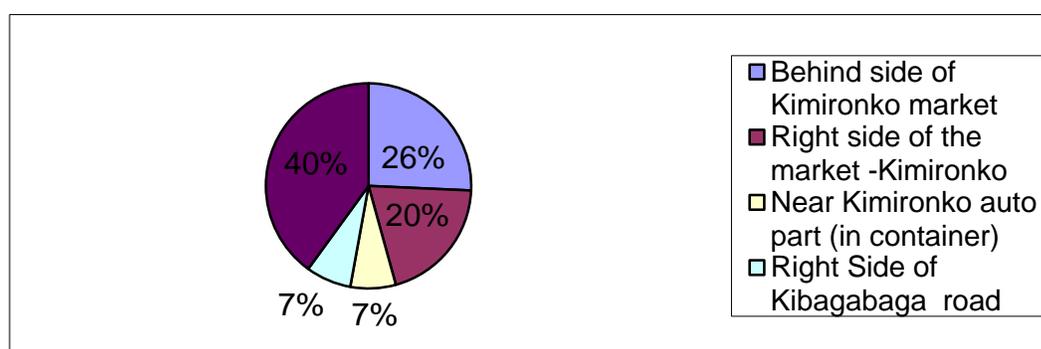
Answer to the question: Are there any differences in sales resulting from the location of the business?	Number of respondents /Frequency	Percentage
Yes	70	100
No	0	0
Total	70	100

Source: Primary data

TABLE 4.9
LOCATIONS ATTRACTING MORE CUSTOMERS THAN OTHERS AT KCC

Locations	Number of respondents/ Frequency	Percentage
Behind Kimironko market	18	25.7
Right side of the market –Kimironko	14	20
Near Kimironko auto part (in container)	5	7.14
Right Side of Kibagabaga road	5	7.14
Inside market	28	40
Total	70	100

FIGURE 4.1
LOCATIONS ATTRACTING MORE SALES VOLUMES THAN OTHERS AT KCC



Source: primary data

TABLE 4.10
PROMOTION STRATEGY ON THE SALES VOLUME AT KCC

Answers to the question: Are the sales volume influenced by the promotion?	Frequency	Percentage
Highly influenced	18	25.7
Sufficiently influenced	36	51.4
No influence at all	16	22.9
Total	70	100

Source: Primary data

TABLE 4.11
TYPES OF PROMOTION STRATEGIES COMMONLY USED AT KIMIRONKO
COMMERCIAL CENTRE

Answers to the question: What is the promotion strategy that you consider to give higher sales volume	Frequency	Percentage
Advertising	8	11.4
Publicity	2	2.8
Sales promotion	2	2.8
Personal selling	42	60
None	16	22.9
Total	70	100

The Influence of Tax Knowledge on Tax Compliance Attitude in Rwanda: A Case Study of Kigali City Business Community

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ABSTRACT

The purpose of this research project was to examine the effects of tax education on tax compliance attitude because revenue collection is inadequate as per the expectations and tax administration somehow weak and this is believed to be due to many factors like low tax collection, delays, poor record keeping and political interference. There was also low tax compliance, tax evasion, corruption and connivance between staffs and tax payers, unmotivated work force, inefficient and ineffective tax administration characterized by poor internal controls and inadequate accountability. It is because of the influence of tax education on tax compliance attitude. This study is significant to RRA, University of Kigali, the researcher, government and even the civil society or business community. Several literatures were reviewed on the effects of tax education on tax compliance attitude. The study will be a descriptive and analytical design based on a case study. The researcher used both qualitative and quantitative research by considering both primary and secondary source of data which applies the use of questionnaire and documentary techniques. The population size was 884 consisting of Kigali business community and Rwanda Revenue authority staffs and the sample size was 275. From the findings it was established that Rwanda Revenue Authority provides tax education through workshop, seminars, mass media, community service which greatly influences the level of tax compliance among the Kigali business community simply because it has helped them to pay the right amount of income tax, to know of the penalty by the RRA if they do not comply, to feel morally obliged to honestly declare all their tax liabilities, to use the filling system easily to remit tax claims and has made them to respect RRA rules and regulations. It was further established that there is a strong relationship between Tax knowledge and Tax compliancy in Rwanda whereby the respondents N was 275 and the significant level was 0.01, the results indicated that independent variable has positive high correlation to dependent variable equal to .656** and the p-value is .000 which is less than 0.01. When p-value is less than significant level, therefore researchers conclude that variables are correlated and null hypothesis is rejected and remains with alternative hypothesis. This means that there is a significant relationship between Tax knowledge and Tax compliancy in Rwanda. In conclusion therefore Tax knowledge contributes positively to Tax compliancy.

GENERAL INTRODUCTION

The influence of knowledge on compliance behaviors has been assessed in various researches. Knowledge as one of the factors in compliance is related to the taxpayers' ability to understand taxation laws, and their willingness to comply. The aspect of knowledge that relates to compliance is the general understanding about taxation regulations and information pertaining to the opportunity to evade tax (Kasipillai, Norhani, and Noor, 2003). Taxation knowledge is necessary to increase public awareness especially in areas concerning taxation laws, the role of tax in national development, and especially to explain how and where the money collected is spent by the government (Mohd, 2010).

Tax compliance is growing international concerns for tax authorities and public policy makers as tax evasion seriously threatens the capacity of government to raise public revenue. Taxpayers will readily accept any new system introduced if they have ample knowledge to understand the system (Kasipillai, Norhani, & Noor, 2003). Thus, education programs organized by custom and duty authority or public education institutions are required to enhance taxpayers' ability to understand the importance of tax on country's economic development and to increase their confidence in fulfilling their responsibilities as taxpayers. It is clear that developing tax knowledge in taxpayers is an important element in operating a successful tax system. Achieving an appropriate voluntary compliance level could be achieved if taxpayers

can complete the tax returns correctly and pay the right amount of taxes. Thus to realize the objectives of voluntary compliance, taxpayers need to be informed, well educated (particularly in tax matters), and their tax literacy level needs to be enhanced on a regular basis to keep their knowledge up to date and relevant.

All the reforms in Rwanda's tax base system were aimed at improving tax collections, administrations, and above all tax compliance. In a bid to improve tax compliance, Rwanda Revenue authority (RRA) decided to opt for tax education in order to increase awareness through various means like media, public gathering, internet and community works like umuganda.

Before 1994, revenue collection was carried out by Department of Customs and Excise Duties, Inland Revenue and income tax in the ministry of finance. Revenue collection was low and tax administration weak and this was believed to be due to many factors like low tax collection, delays, poor record keeping and political interference. There was also low tax compliance, tax evasion, corruption and connivance between staffs and tax payers, unmotivated work force, inefficient and ineffective tax administration characterized by poor internal controls and inadequate accountability. Tax policy had become volatile, unpredictable and constituted a serious hindrance to trade, investment and enterprise (Mutebille, 2009). Moreover, tax administration capacity had deteriorated greatly; Smuggling, smuggling and evasion were rampant and decision about tax issues were heavily influenced by rent seeking behavior.

Information about tax laws, rules, and regulations was not generally available or easily accessible even to policy makers and administration officials. This could encourage corruption, created serious inequalities in tax outcomes and undermined revenue collection. Rwanda Revenue Authority in September 1998 by the Rwanda Revenue Authority statute number 6 of 1998 as a central autonomous organization. The key objectives in setting up RRA were to improve revenue collection and address the human resource constraints through improved remuneration recruitment, staffs development and training and ethical conduct. The mandate of RRA was to assess and collect specified tax revenue, administer and enforce tax payer compliance and account for revenue collected (Rwanda Revenue Authority, 1991).

Rwanda Revenue Authority (RRA) Compliance report (2008) states that in spite of the tax education provided in the country through different means (Workshop, seminar, mass media and community sensitization), level of tax compliancy is still low hence there is need for effective tax education in order to improve on tax compliancy. It is based on the above problem that is why the researcher was prompted to examine the influence of tax education on tax compliance attitude in Rwanda.

The objectives of this study was to examine the influence of tax education on tax compliance attitude in Rwanda and the specific objectives were: To determine the level of tax knowledge in Kigali City; To examine the level of Tax compliance among the Kigali Business Community; To establish the extent of Tax Knowledge on tax compliance among the Kigali Business Community.

The study covered tax payers and clearing agents working in Kigali City most especially the central business in the three districts of Nyarugenge, Gasabo and Kicukiro.

The research considered compliance levels, administrative issues and attitudes of tax payers towards tax education.

The study was conducted among Kigali Business Community to analyze compliancy levels, administrative issues and attitudes for tax payers towards the tax education system and it was for a period of 4 years 2011 to 2014. The researcher chose a period of four years because of the limited time given to complete the research.

Profile of the Case Study was City of Kigali a gateway to Rwanda Located at Rwanda’s geographical heart, the rapidly growing City of Kigali is not only the national capital, but also the country’s most important business centre and main port of entry.

City of Kigali, which started in 1907 as a small colonial outpost with little link to the outside world, is now 100 years old. Today, City of Kigali has come of age as the capital of Rwanda and made phenomenal strides. It is a city that has not just survived, but has prevailed and has grown into a modern metropolis- a heart of the emerging Rwandan economy and a pride of every Rwandan.

Among the safest and friendliest of African capitals, City of Kigali is blessed with a moderate high altitude climate that belies its tropical location, and is conveniently located within three hours’ drive of the main tourist sites. The Rwandan capital provides both a comfortable and welcoming introduction to this land of a thousand hills and an ideal springboard from which to explore this magical country.

City of Kigali is made up of three districts namely Gasabo, Kicukiro and Nyarugenge. It is presently inhabited by approximately 1 million inhabitants. Kigali is 70% rural with a population which is relatively young the youth make up about 60% and women make slightly more the 50%.

LITERATURE REVIEW

The purpose of this chapter is to review the existing literatures regarding the relationship of tax knowledge and compliance. The chapter has three sections and organized as follows. The section presents the theoretical reviews tax compliance, tax education and the impacts of tax education on tax compliancy.

Tax Compliance

The definition of tax compliance in its most simple form is usually cast in terms of the degree to which taxpayers comply with the tax law (Alm, 1991). However like many such concepts, the meaning of compliance can be seen almost as a continuum of definitions. This ranges from the narrow law enforcement approach, through wider economic definitions and on to even more comprehensive versions relating to taxpayer decisions to conform to the wider objectives of society as reflected in tax policy. Taking the narrow end of the continuum first, one suggestion is that the degree of non-compliance may be measured in terms of the ‘tax gap’. This represents the difference between the actual revenue collected and the amount that would be collected if there were 100per cent compliance (James & Alley, 2004).

Tax compliance may be seen in terms of tax avoidance and tax evasion. The two activities are usually distinguished in terms of legality, with avoidance referring to legal measures to reduce tax liability and evasion to illegal measures. While some commentators see non-compliance only as an evasion problem, this does not seem to capture the full nature of the problem. Clearly tax evasion is a form of non-compliance (Alm, 1991). However, if taxpayers go to inordinate lengths to reduce their liability this could hardly be considered ‘compliance’ either. Such activities might include engaging in artificial transactions to avoid tax, searching out every possible legitimate deduction, using delaying tactics and appeals wherever this might reduce the flow of tax payments and so on. ‘Tax exiles’ even seem to prefer to emigrate rather than fulfill their obligations as citizens.

Even if such activities are within the letter of the law, they are clearly not within the spirit of the law. Compliance might therefore be better defined in terms of complying with the spirit as well as the letter of the law.

Tax compliance is a complex behavioral issue and investigation requires the use of a variety of methods and data sources as each instrument has strength and weaknesses. (Alm 1991) defined tax compliance as the reporting of all incomes and paying of all taxes by fulfilling the provisions of laws, regulations and court judgments. Another definition of tax compliance is a person's act of filling the Income Tax Form, declaring all taxable income accurately, and disbursing all payable taxes within the stipulated period without having to wait for follow-up actions from the authority. Roth explained that taxpayers need to prepare all the relevant information in the Income Tax Form within the period given and the form must report accurate tax liability in accordance with the needs of laws, regulations, and court judgments. Those who fail to adhere to taxation laws intentionally or otherwise shall be considered as having committed an offence.

James and Alley considers tax compliance in terms of the tax gap, which is the difference between "true" individual income tax liability and that finally, collected on a voluntary basis or by enforcement action. In other words, 'tax gap' represents the difference between the actual revenue collected and the amount that would be collected if there were 100 percent compliance.

In this case, (Mohani 2003) state that 'compliance' refers to voluntary not compulsory behavior. Taxpayers' compliance would not be considered voluntary compliance if they adhere merely for fear of threats and or harassment.

Tax compliance is important for many reasons. This is because non-compliance leads to a reduction in tax collections, which in turn affects public services received by the citizens, including compliant taxpayers. It also requires the government to expend resources to deter noncompliance, to detect its magnitude and to penalize its practitioners. According to Brand (1996), it is less expensive to collect taxes through voluntary compliance than through the use of enforcement. Tax compliance is a tenuous concept to define. Despite there is no standard all embracing definition of compliance adopted across all tax compliance studies, the meaning of compliance can be seen almost as a continuum of definitions ((Mohamad et. al. 2011)).

According to these authors, the range of definition extends from the narrow law enforcement approach through wider economic definitions and on to even more comprehensive versions relating to taxpayer decisions to conform to the wider objectives of society as reflected in tax policy. (Mohamad (2011) considers tax compliance in terms of the tax gap, which is the difference between "true" individual income tax liability and that finally, collected on a voluntary basis or by enforcement action.

From the economic point of view, tax compliance has been defined as compliance with reporting requirements, meaning that the taxpayer files and pays all required tax returns at the proper time and that the returns accurately report tax liability in accordance with the taxing system applicable at the time the return is filed (Devos, 2005). This definition holds an important extension from the previous definition, which is the timing issue. Late tax payments cannot be considered as proper compliance as cash today is worth more than cash tomorrow. The rationale behind this notion is that whenever a government does not collect tax payments on time, it would be forced to either cut public expenditure or increases the amount it has to raise elsewhere (Mohamad et. al. 2011). It is further asserted that although late payments of tax fit many of the 'tax gap' measures, they do not represent full compliance.

Tax compliance behavior may be perceived as a rational economic decision making process; as a reaction to perceived fairness; as an ethical conduct or as an action due to ignorance. Each of these factors in isolation may not by itself contribute to particular compliance behavior. In fact, analysis of the findings of some

empirical studies indicated that tax compliance behavior varies widely over individual circumstances and influenced by factors such as the desire to avoid sanction as well as being subjected to group influence. Taxpayers may under-declare their income and would be deterred only by the chances of detection and penalties imposed.

Types of Non Compliancey

Tax non-compliance is of two types: intentional and unintentional. Intentional non-compliance is an offense against government in which the taxpayer understates the tax liability and subject to punishment. It could be emanated from seeking benefit from avoidance, taxpayers' personal attitude towards compliance, situational factors, complexity of tax structure, dissatisfaction on government service, and other. Tax evasion is one form of non-compliance, which Social scientists generally have considered it a typical "white-collar crime," defined by Sutherland (1939) as "a crime committed by a person of respectability and high social status in the course of his occupation". It is a serious challenge dealing with every nation's revenue authorities. It is further commented that unintentional understatement or overstatement of tax liability may arise because of, among others, lack of knowledge and failure to pay due care in the maintenance of book of accounts and the preparation of returns.

According to Hasseldine (1999), many tax agencies have used various techniques to measure the extent of non-compliance, but there will always be some compliance dependent on the social attitudes and behavioral aspects of taxpayers. Moreover, the extent of non-compliance among individual taxpayers not only depends on individual factors, but on a complex combination of circumstances.

Non-compliance represents the most inclusive conceptualization with respect to the failure to meet tax obligations whether intentional or unintentional (Kinsey, 1985), as cited in Kasipillai & Noor, 2003. Tax evasion however, involves some elements of fraudulent conduct accompanied by a real intention on the part of the taxpayer to willfully or deliberately mislead, deceive or conceal from IRB to pay less tax than actually owed. In general, non-compliance may take several forms and they include: Failure to submit a tax return within the stipulated period or non-submission; Understatement of income; Overstatement of deductions; and Failure to pay assessed taxes by the due date

Theories of compliance behavior tend to reflect one of three schools of thought commonly referred to as economic deterrence, social psychology, and fiscal psychology (McKerchar & Evans, 2009).

Economic Deterrence Theory

Economic deterrence models in general are based on the theory that behavior, in a wide range of contexts including tax evasion, is responsive to punishment or sanctions. Economic deterrence theory tend to have a narrow, theoretical view of behavior, reducing its dimensions to numerical measures and assigned probabilities from which outcomes can be predicted using calculus. In order to determine behavior in this manner, economic deterrence models tend to rely upon a wide range of fundamental assumptions that are generally unrealistic. For example, that all people respond to a change in any one variable in an identical and predictable manner; that all taxpayers have a full knowledge of the probability of being audited; and that all taxpayers have the same level of risk preference. Although empirical testing has been limited, the theoretical principles of economic deterrence have been widely adopted by tax administrations in developing enforcement strategies that rely principally on penalties and the fear of getting caught (McKerchar & Evans, 2009).

Social Psychology Theories

Social psychology theories are concerned with the prediction and understanding of human behavior, or how people make decisions, using a range of methodological approaches including compositional modeling, attribution theory and equity theory (McKerchar & Evans, 2009).

Compositional modeling is characterized by the view that individuals undertake deliberate and reasoned action according to their personal preferences. This approach assumes that people consider the implications of their actions before they decide, or form an intention, to engage or not engage in a given behavior. Further, this approach assumes that intention directly translates into behavior, without any further influences. The theory then seeks to explain how intention is formed (Ajzen & Fishbein, 1980).

Attribution theory is based on the assumption that individuals rationally interpret and analyze events in order to understand causal structures. People have internal (personal) and external (situational) attributes. In judging the behavior of others, people will generally attribute the outcome as being caused by their own internal attributes. In judging their own behavior, people tend to believe the cause is due to external attributes. Equity theory proposes that individuals are more likely to comply with rules if they perceive the system that determines those rules to be equitable. Where there are perceived inequities, individuals will adjust their inputs to the exchange until equity is restored. Based on equity theory, addressing inequities in the exchange relationship between government and taxpayers would result in improved compliance (McKerchar & Evans, 2009).

Fiscal Psychology Theories

Fiscal psychology theory draw on both the economic deterrence and the social psychology theory and generally view tax enforcement as a behavioral problem, one that can be resolved by co-operation between taxpayers and tax collectors. To obtain this co-operation, the role of the tax system itself in providing the positive stimulus (such as decreasing penalties) is emphasized. This stimulus is then expected to generate a more positive attitude in taxpayers that will in turn impact on their compliance decisions (McKerchar & Evans, 2009). It has been held that tax mentality; feelings of tax tension, and tax morale were the three psyches that together made up a taxpayer's attitude. The more positive the taxpayer's attitude towards paying tax the greater the level of co-operation with the tax authority and the greater the willingness to pay tax. However, fiscal ignorance may be a negative influence on a taxpayer's attitude (Lewis, 1979).

Tax compliance determinants

Jackson and Milliron (1986) listed 14 main factors that have influenced tax compliance as discussed by various researchers. These factors are age, gender, education, income, occupation or status, peers' or other taxpayers' influence, ethics, legal sanction, complexity, relationship with taxation authority, income sources, perceived fairness of the tax system, possibility of being audited and tax rate. Other elements such as penalty, audit, and tax rates as also listed as factors having great influence on tax compliance behaviors (Mohani, 2001). In this sub-section, determinant factors that influence tax compliance such as tax knowledge, ethics and attitudes towards tax compliance, awareness of offences and penalties, and tax education are discussed.

Tax knowledge

Knowledge as one of the factors in compliance is related to the taxpayers' ability to understand taxation laws, and their willingness to comply. The aspect of knowledge that relates to compliance is the general understanding about taxation regulations and information pertaining to the opportunity to evade tax (Eriksen & Fallan, 1996). Taxation knowledge is necessary to increase public awareness especially in areas

concerning taxation laws, the role of tax in national development, and especially to explain how and where the money collected is spent by the government (Mohd, 2010). More importantly, it is necessary that current and future taxpayers are exposed to the roles that they could play in developing the country. This exposure could be given through seminars, dialogue sessions, or collaboration with the Ministry of Education to introduce the subject of Taxation at secondary schools (Mohani, 2003).

Ethics and attitudes toward tax compliance

In a tax system which is based largely on voluntary compliance (such as a SAS), the taxpayers' standard of ethics is 'extremely important' (Song & Yarbrough, 1978). Ethics are a subjective continuum and the level of ethical behavior is heavily reliant on how people perceive the behavior being considered. It is assumed that ethics encourage individuals to act according to them and a taxpayer with a negative attitude towards tax evasion tends to be less compliant.

Based on Ajzen (1991) the theory of reasoned action or the intention to evade will encourage a taxpayer to behave negatively toward taxation and thus attempt to under-report income. On the other hand, attitudes towards the tax authority are also important as tax attitudes and ethics generally depend on perceived use of the money collected by the government (Song & Yarbrough, 1978).

Awareness of offences and penalties

From the tax administration viewpoint, researchers have concluded that compliance could be influenced by education taxpayers of their social responsibilities to pay and thus their intention would be to comply. As a behavior problem, tax compliance depends on the cooperation of the public. There are greater gains in assisting compliant taxpayers meet their fiscal obligations rather than spending more resources pursuing the minority of no-compliers. Assisting tax payers by improving the flow and quality of information or education them (eg, TV campaigns) in to becoming more responsible citizens has the potential to yield greater revenue than if it were spent on enforcement activities. A theoretical economic model introduced by Allingham & Sandmo (1972) has clearly indicated that penalties as well as audit probability have an impact on tax compliance. The higher the penalty and the potential audit probability the greater discouragement for potential tax evasion.

Education

Greater education potentially increases compliance, as educated taxpayers may be more aware of their responsibility as well as the sanctions to be imposed if they were not compliant with tax laws. Education levels become more important in increasing tax compliance across countries.

One of the measures to increase voluntary compliance is by assuring that taxpayers have a certain level of qualifications, ability and confidence to exercise their tax responsibility (Mohani, 2003).

The next section will present the previous research results about tax compliance and the accompanied determinant factors for the existence of tax compliance.

Level Tax Education

Greater education is directly linked to a likelihood of compliance. Educated taxpayers may be aware of non-compliance opportunities, but their potentially better understanding of the tax system and their higher level of moral development promotes a more favorable taxpayer attitude and therefore greater compliance (Chan et. al. 2000). Chan et al. also suggested that those with a higher education level are more likely to have a higher level of moral development and higher level attitudes toward compliance and thus will tend to comply more. One of the measures to increase voluntary compliance is by assuring that taxpayers have

a certain level of qualifications, ability and confidence to exercise their tax responsibility (Mohani, 2001). Taxpayers who have attended a tax course would be expected to have better tax knowledge and tax compliance attitude in comparison with taxpayers who have never attended a tax course (Mohd, 2010). Hite and Hasseldine (2001) highlighting that tax authority need to emphasize teaching tax courses because of impact of education on compliance.

According to the Fischer Model, non-compliance opportunities can affect tax compliance both directly and indirectly through attitudes and perceptions. Chan et. al. (2000), investigates the direct and indirect effects of two noncompliance opportunities, namely educational and income level. Previous literature supports the direct, negative relationship between educational level and taxpayer compliance but a direct relationship between income level and tax compliance is unclear. Chan et. al. (2000) also postulate that greater education is directly linked to a likelihood of compliance. They argue that educated taxpayers may be aware of non-compliance opportunities, but their potentially better understanding of the tax system and their higher level of moral development promotes a more favorable taxpayer attitude and therefore greater compliance. Chan et. al. also suggested that those with a higher education level are more likely to have a higher level of moral development and higher level attitudes toward compliance and thus will tend to comply more. In contrast, the most recent study by Richardson (2008), cited in Mohd, 2010, also revealed that there is a negative association between education and compliance.

Hite & Hasseldine (2001), Mohamad et. al. 2011, investigate the current developments in the USA, highlighting that tax academics need to emphasize teaching and development. In other countries, tax education, as well as tax development is not as good as in the USA. Their study was expected to be able to help academics in other countries to adapt what has been done in the USA, especially in teaching methodology (in tax courses) so that other countries can learn how to educate taxpayers more effectively and efficiently.

The survey result of Demissie (2008) reveals that taxpayer's poor knowledge of tax rules and regulations is the most deterring factor of voluntary compliance. In addition, Kasipillai et al. (2003) states that tax knowledge has impact on tax compliance. The study specifically evaluates the influence of education on tax compliance among undergraduate students in Malaysia. A questionnaire was administered on undergraduate accounting students of University of Utara Malaysia (UUM) to determine whether education influences respondents' tax avoidance and tax evasion behavior. 560 questionnaires were distributed to UUM students who had yet to commence their taxation course. The statistical findings confirm the prevalence of a relationship between tax education and tax compliance, suggesting tax education positively contributes towards tax noncompliance. However, students' responses may not accurately reflect the taxpaying public as a whole and generalization on the change in attitude among the 'real' taxpayers may not be appropriate.

Impacts of Tax Education on Tax Compliancy

Tax knowledge and tax compliance

This sub-section discusses the importance and the role of tax knowledge, particularly in determining taxpayers' attitudes towards taxation.

The influence of knowledge on compliance behaviors has been assessed in various researches. Attitude towards tax compliance can be improved through the enhancement of taxation knowledge. When a taxpayer has a positive attitude towards tax, this will reduce his or her inclination to evade tax payment (Eriksen & Fallan, 1996).

Harris (1989), divided tax knowledge into two aspects, namely, knowledge through common or formal education received as a matter of course and knowledge specifically directed at possible opportunities to evade tax. In the first case, the level of education received by taxpayers is an important factor that contributes to the general understanding about taxation especially regarding the laws and regulations of taxation. Previous studies have evidenced that general tax knowledge has a very close relationship with taxpayers' ability to understand the laws and regulations of taxation, and their ability to comply with them (Singh, 2003).

Eriksen & Fallan (1996) claimed that 'knowledge about tax law is assumed to be important for preferences and attitudes towards taxation. The research done by Eriksen & Fallan has illustrated the importance of tax knowledge in a tax system, especially in a SAS. They suggested that fiscal knowledge correlates with attitudes towards taxation and tax behavior can be improved by a better understanding of tax laws. Eriksen & Fallan's study is divided into three main parts. Firstly, the investigation is focused on taxpayers' knowledge. Secondly, the research tries to reveal the overall impact of tax knowledge on tax compliance behavior among individual taxpayers and thirdly, the research involves tax agents in order to determine their influence in determining taxpayers' behavior because in SAS, tax agents are assumed to be involved more in preparing, declaring and calculating tax liability on behalf of individual taxpayers than in the directly assessed system.

Eriksen & Fallan (1996) attempt to determine the relationship between the level of tax knowledge and attitudes toward taxation; whether specific tax knowledge influences attitudes in general (not only tax attitudes) and investigates people's behavior toward traditional crime. The study was conducted through quasi-experiment with pre-testing and post-testing of two student groups in Norway. The control group comprised of students who were going to take marketing as an elective subject in the second year of their BA education whereas the other group (experimental group) consisted of students who had selected tax laws as an elective. Tax knowledge was measured in the pre-test and post-test using a score calculated from 12 questions concerning tax allowances and tax liabilities. In the post-test, the researchers extended the questions to 28 in order to get a better picture of tax knowledge between the two groups. Erikson & Fallan used multiple choice questions in which in each question respondents had to choose either 'Yes', 'No' or 'Do not Know'. Tax knowledge was measured based on the answers. The result of the study suggested that tax knowledge has a positive correlation with perceptions of fairness, tax ethics and attitudes to others' tax evasion. The result of the study supports the principle of attitudes being affected by better tax knowledge and demonstrates that it holds other attitude dimensions as well as the fairness of progressive tax which was studied by Robert et. al. (1994). The students' perception of the fairness of the tax system increases as tax knowledge is improved. This result is in line with previous studies by Lewis (1982) where low tax knowledge correlates with negatives attitude toward taxation. 'Tax attitudes can be improved through better tax knowledge' (Eriksen & Fallan, 1996) and thus this will in turn increase compliance and reduce the inclination to evade taxes.

Furthermore, Eriksen & Fallan (1996) suggested that a taxpayer should be given better tax knowledge to improve perceptions of fairness, tax ethics and attitudes to others' tax evasion and thus suggesting that a successful means of preventing tax evasion is to provide more tax knowledge to larger segment of society in order to improve tax ethics and people's conception of the fairness of the tax system. It would be a step in the right direction to make teaching in tax law and tax knowledge a compulsory part of social science teaching in the schools.

Collins, Milliron & Toy (1992) on the other hand produced a contradict result in their study in the United States from a random mail survey of 700 households from telephone directories. Out of 220 usable responses, they found that tax knowledge and the level of education were negatively correlated with compliance behavior. According to these researchers, knowledge about tax law is assumed to be of importance for preferences and attitudes towards taxation.

As self-assessment system requires the full capability and competency of taxpayers' knowledge; some aspects of attitudes towards taxation, such as tax ethics and their perceptions of the fairness of the tax system also have an influence on the inclination towards tax evasion (Jackson & Milliron, 1986).

Lewis (1982), as cited in Mohamad et. al. 2011, attempted to determine whether there is a connection between specific tax knowledge and compliance attitudes during completing the tax return. His aim was to study any changes in the attitudes towards taxation that result from increased knowledge about taxation which might have a significant impact on tax compliance.

Lewis argued that there is insufficient knowledge about tax regulations and this situation leads to negative economic effects (an increase in the tax gap). Furthermore, there also seemed to be considerable differences in the level of knowledge although the level of education remains the same. Moreover, there are no comparable experiments focusing on how better specific tax knowledge affects attitudes towards taxation as mentioned by Alm (1991), who presents a survey of experiments in tax compliance research.

A study in Malaysia conducted by Loo and Ho (2005) examined salaried individual competency in SAS but limited their sample to individuals who pay taxes in and prior to 2003 and who are likely to pay taxes in and after the year of 2004. Tax knowledge was measured in terms of chargeable income, exemptions, reliefs, rebates and tax credits. By using a survey of 250 questionnaires, the study concluded that although the respondents have tertiary education, their tax knowledge in relation to personal taxation was considered to be relatively low thus making them 'incompetent and not ready to exercise appropriate compliance under self-assessment regime' (Loo & Ho, 2005).

Ethics and attitudes toward tax compliance

According to Jackson & Milliron, (1986) tax ethics and attitudes towards tax compliance have an influence on the inclination towards tax evasion. Roth, Scholz, & Witte (1989) identified two primary factors in taxpayer compliance, namely financial self-interest and moral commitment. Individuals comply with tax laws because it is in their own financial interests to minimize their tax bill, but also because of their perceived moral obligation to obey tax laws.

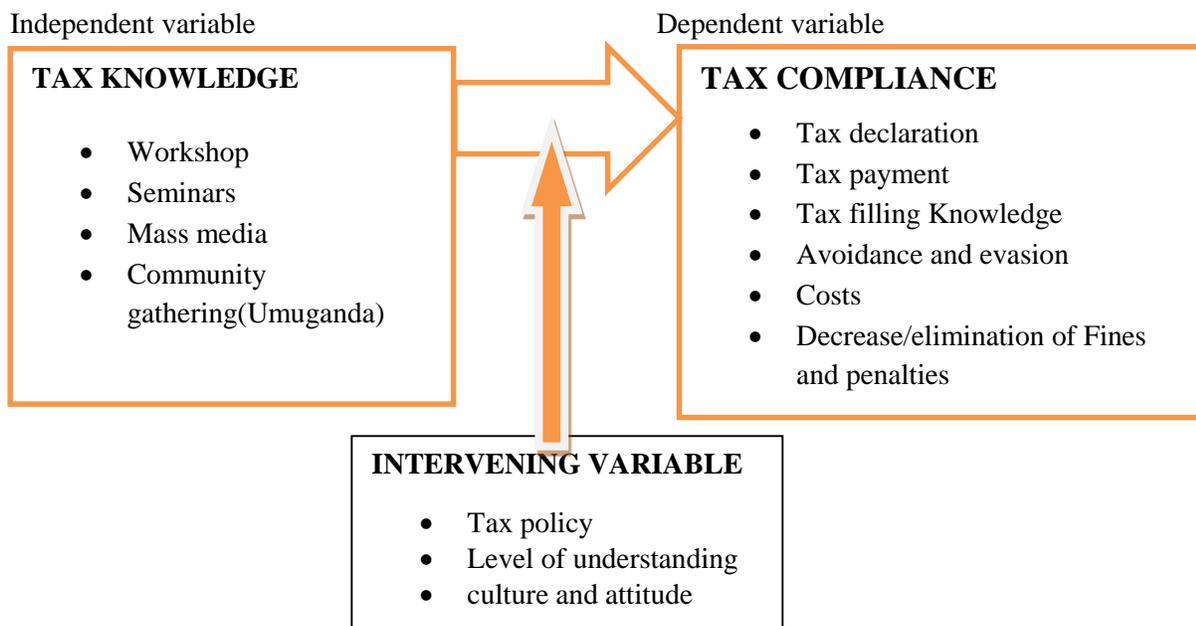
The results of Roth, Scholz, & Witte (1989), reveals that there is a consistently positive relationship between moral commitment and compliance behavior. These researchers assume that ethics have a positive effect on compliance behavior more than financial self-interest. The best predictor of a person's behavior is ethics, but this link can be disrupted by the passage of time, unforeseen events or new information.

Song and Yarbrough (1978) states that the average taxpayer's tax ethics is 60.3 on a scale of 100 and 21 per cent of taxpayers have a negative level of tax ethics. These researchers consider this overall level of tax ethics as "barely passing." Tax ethics at this level should be taken asymptomatic of a disease seriously threatening the moral fiber of society and the viability of the democratic system.

Awareness of offences and penalties

Since previous studies indicate that penalty rates impact upon tax compliance behavior, the awareness of offences was presumed to have a significant influence as well. If the taxpayers are aware of the offences they are committing when evading tax and the consequences of being non-compliant taxpayers, they might reduce their tendency to evade tax. On the other hand, if they are not aware of the implications of being dishonest in terms of the offence they are likely to be charged with if caught, they might be more inclined to cheat because they presume that they will not be detected and could save money. Thus, educating taxpayers and keeping them well informed with the sentences of being an evader may be important, as a prevention measure is better than cure (Mohamad et. al. 2011).

TABLE 1
CONCEPTUAL FRAMEWORK



Source: Researcher Compilation

The researcher believes that increase of tax knowledge workshop, seminars, mass media and community gathering (Umuganda) can increase tax compliance among timely tax payers, tax adequate tax filling Knowledge, knowledge on avoidance and evasion and knowledge in costs management especially if tax policy is favorable and the community have good attitudes and culture towards development of the country.

Conclusion and identification of the gap

To conclude on this chapter, the results of various studies indicate that tax knowledge appears to be an important element in tax compliance. The study of Mohamad et al. (2011) reveals that educating taxpayers and keeping them well informed with the sentences of being an evader may be important, as a prevention measure is better than cure. Jackson & Milliron (1986) states that tax ethics and attitudes towards tax compliance have an influence on the inclination towards tax evasion. It is also suggest by Eriksen & Fallan (1996) that, successful means of preventing tax evasion is to provide more tax knowledge to larger segment of society in order to improve tax ethics and people’s conception of the fairness of the tax system.

In opposite to this, Collins, Milliron & Toy (1992) on the other hand produced a contradict result in their study in the United States. They found that tax knowledge and the level of education were negatively correlated with compliance behavior. In addition to this, the most recent study by Richardson (2008), cited in Mohd, 2010 also revealed that there is a negative association between education and compliance.

This indicates that there is a contradictory results of studies conducted on tax compliance determinants. Therefore, this difference in results motivates the researcher to carry out this study.

In addition to this, even though there are studies on tax compliance conducted before, such as a study on the assessment of the status of voluntary tax compliance among taxpayers in the Ethiopian perspective by Demissie (2008) and, a quantitative research of the effect of peer influence and government services on income tax compliance by Ahbabu (2010) the influence of tax education on tax compliance attitude is not independently studied by other researchers previously. Therefore, this knowledge gap also motivates the researcher to explore how tax education will influence tax compliance attitude by using experiment on taxpayers.

RESEARCH METHODOLOGY

This chapter gives a detailed presentation of the tools and techniques to be used to investigate the research issues in the field. It includes spelling out the area of the study and study population. It further describes the methods and techniques to be used in the choosing the sample size and selection instruments like questionnaire, interviews and documentation will be used. It also includes data processing, analysis and problems that likely to encounter in this research.

Research Design

The study was descriptive research design basing on both quantitative and qualitative approach. The major aim of a descriptive study according to Kumar (2005) is to describe and provide information on what is prevalent regarding a group of people, a community, a phenomenon or a situation. In order to achieve the objective of this study by providing information on tax knowledge effects on compliancy, this study embarked on the research mission of using quantitative and qualitative methods to investigate a number of diverse variables to describe tax knowledge effects on compliancy backgrounds, their contributions to the government and the problems faced. Correlation Study is the strength of relationships between variables was described and explored from the testing of the specified hypotheses of the study. According to Bryman (2004), in a correlation analysis, the strength of relationships between variables is explored. Similarly, Kumar (2005) emphasized that in correlation studies relationships or associations between two variables are ascertained. This study showed the relationships between the independent research variables and one dependent variable.

Population Size

The study population was composed of 884 personal income tax payers within the Kigali Business community.

Sample Size and Techniques

When it is not possible to study an entire population but the population is known, a smaller sample is taken using a random sampling technique. Slovin's formula allows a researcher to sample the population with a desired degree of accuracy (Stephanie, 2013). Slovin's formula was used to calculate the sample size. With regard to the level of accuracy, we used a confidence level of 95% as suggested by Kothari (2005), this means that there are 95 chances in 100 (or .95 in 1) that the sample results represent the true condition of

the population within a specified precision range against 5 chances in 100 (or .05 in 1) that it does not. The Slovin’s formula was calculated as follows:

$$n = \frac{N}{1 + Ne^2}$$

Stephanie (2013)

n= Number of samples or sample size; N= Total population; e= Error tolerance

The population size of this research is 884 tax payers. We took a sampling error of 5%, and then the sample size was:

$$n = \frac{N}{1 + Ne^2} = \frac{884}{1 + 884(0.05)^2}$$

$$n = 275$$

The study constituted 275 tax payers within the business community in Kigali City Centre.

Data Collection Instruments

Below are the instruments that were used by the researcher to collect the required data:

Questionnaires

This was an important method of data collection. Kumar (2005) said that a questionnaire is justifiable in data collection mainly because; it enables the researcher to collect large amount of data within a short time period, it also provides opportunity for respondents to give frank, anonymous answers. One set of questionnaire was designed for the tax payers; it included both open and closed ended set of questions that were answered. The questionnaire was written in a simple and clear language for the respondent to feel free while answering. In addition to that the use of questionnaire is considered vital to the research since it provided accurate information regarding the study.

TABLE 2
MEASUREMENT SCALE AND INTERPRETATION

Scale	Scale coding	Mean range	Interpretation
Strongly Agree	5	4.20-5.00	Very high
Agree	4	3.41-4.20	High
Undecided	3	2.61-3.40	Moderate
Disagree	2	1.81-2.60	Low
Strongly Disagree	1	1.00-1.80	Very low

Documentary Review (Content Analysis)

This research also reviewed literature obtained from the case study organization on the independent variable which was tax knowledge and dependent variable which was tax compliance. This method was chosen because; it is vital in providing background information and facts about effects of tax knowledge on tax compliance before primary data could be collected. Indeed, before field data is collected, a wide collection

of data had been collected and this was used to cross check with the primary data that is to be obtained from the field.

Validity

Validity refer to the extent which an instrument represents the factors under the study. To achieve the content validity index, the instrument of measurement was established by the research supervisor. The validity of instrument was pretested by using the following formula:

$$CVI = \frac{\text{Relevant Items}}{\text{Total Number of items}}$$

If the result indicated a number of 0.70 and above then the instrument would be valid and relevant for use in the present research study. Below is the formula used to ascertain the validity of the research tools for collecting data.

Reliability of the Instruments

Estimation of reliability of the instrument was done by pilot-testing the instrument and apply Cronbach's Alpha coefficient to ascertain the internal consistency of the research tool, namely, questionnaire. Should the Coefficient be ≥ 0.70 , then the instrument would be considered reliable for use to collect actual data. Cronbach's Alpha which is an instrument among others was used to determine the coefficient of reliability using Statistical Package for Social Sciences (SPSS). Computation of data from pilot-testing yielded a moderately high 0.725 Cronbach's Alpha coefficient. Table 2 summaries the computation of the reliability of the research tool.

TABLE 3
RELIABILITY STATISTICS

Cronbach's Alpha	Number of Items
0.725	29

FINDINGS

This chapter is about the presentation of results and their interpretation. The researcher used tables to provide meaningful information; each table shows the number of people investigated by researcher along the research. Under each table there is interpretation of all data collection to facilitate the reader to understand the information contained in these tables without going very far.

Level of Tax Knowledge in Kigali City

Assessing the level of tax knowledge in Kigali City

Rwanda Revenue Authority provides Tax Knowledge through workshop

Assessing respondents' views on whether Rwanda Revenue Authority provides tax Knowledge through workshop

RWANDA REVENUE AUTHORITY PROVIDES TAX KNOWLEDGE THROUGH WORKSHOP

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	13	4.7	4.7	4.7
Disagree	28	10.2	10.2	14.9
Not sure	41	14.9	14.9	29.8
Agree	138	50.2	50.2	80.0
Strongly agree	55	20.0	20.0	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

Table 4.4 shows that 70.2% of the respondents agreed that Rwanda Revenue Authority provides tax Knowledge through workshop and 29.8% disagreed. This implies that Rwanda Revenue Authority provides tax Knowledge in spite of few challenges involved.

Rwanda Revenue Authority provides Workshop on Tax Compliancy

This table shows respondents' perception on whether Rwanda Revenue Authority provides Workshop on Tax Compliancy

RWANDA REVENUE AUTHORITY PROVIDES WORKSHOP ON TAX COMPLIANCY

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	6	2.2	2.2	2.2
Disagree	110	40.0	40.0	42.2
Not sure	87	31.6	31.6	73.8
Agree	35	12.7	12.7	86.5
Strongly agree	37	13.5	13.5	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

Table 4.5 shows that 42.2% of the respondents disagreed with the statement that Rwanda Revenue Authority provides Workshop on Tax Compliancy, 31.6% were not sure and 26.2% agreed. This implies that Rwanda Revenue Authority provides Workshop on Tax Compliancy but more effort needs to be put in order to improve on tax compliancy in Rwanda.

Rwanda Revenue Authority provides seminars on Tax Compliancy

The following table shows respondents' perception on whether Rwanda Revenue Authority provides seminars on Tax Compliancy

Table 4.6 shows that 40% of the respondents were not sure whether Rwanda Revenue Authority provides seminars on Tax Compliancy, 33.1% disagreed and 26.9% agreed. This implies that Rwanda Revenue Authority provides seminars on Tax Compliancy but more sensitization is needed.

RWANDA REVENUE AUTHORITY PROVIDES SEMINARS ON TAX COMPLIANCY

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	50	18.2	18.2	18.2
Disagree	41	14.9	14.9	33.1
Not sure	110	40.0	40.0	73.1
Agree	55	20.0	20.0	93.1
Strongly agree	19	6.9	6.9	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

4.2.4 Rwanda Revenue Authority provides mass media on Tax Compliancy

The next table shows respondents' perception on whether Rwanda Revenue Authority provides mass media on Tax Compliancy.

Table 4.7 shows that 92% of the respondents agreed that Rwanda Revenue Authority provides mass media on Tax Compliancy, 5.1% disagreed and 2.9% were not sure. This implies that Rwanda Revenue Authority provides mass media on Tax Compliancy as agreed by the majority of the respondents.

RWANDA REVENUE AUTHORITY PROVIDES MASS MEDIA ON TAX COMPLIANCY

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	14	5.1	5.1	5.1
Not sure	8	2.9	2.9	8.0
Agree	176	64.0	64.0	72.0
Strongly agree	77	28.0	28.0	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

4.2.5 Rwanda Revenue Authority provides Tax Sensitization during community work

Table 4.8 shows respondents' perception on whether Rwanda Revenue Authority provides Tax Sensitization during community work

TABLE 4.8
RRA PROVIDES TAX SENSITIZATION DURING COMMUNITY WORK

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	83	30.2	30.2	30.2
Disagree	110	40.0	40.0	70.2
Not sure	39	14.2	14.2	84.4
Agree	20	7.3	7.3	91.6
Strongly agree	23	8.4	8.4	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

This table shows that 70.2% of the respondents disagreed that Rwanda Revenue Authority provides Tax Sanitation during community work, 15.8% agreed and 14.2% were not sure. This implies that Rwanda Revenue Authority tax Sensitization is limited and needs to be expanded to all gatherings.

Level of Tax Compliance among Kigali Business Community

Assessing the level of tax compliance among the Kigali business community

Record Keeping Management System

This table shows respondents’ perception on whether they have good record Keeping Management System.

RECORD KEEPING MANAGEMENT SYSTEM

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	5	1.8	1.8	1.8
Not sure	8	2.9	2.9	4.7
Agree	156	56.7	56.7	61.5
Strongly agree	106	38.5	38.5	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

The above table shows respondents’ perception on whether they have good record Management System and the findings established that 95.3% of the respondents agreed that they have good record keeping system, 2.9% were not sure and 1.8% disagreed. This implies that the business community has good record keeping system as a result of tax education provided to them.

Timely payment of tax

The following table shows respondents’ perception on whether they pay tax in time

TIMELY PAYMENT OF TAX

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	5	1.8	1.8	1.8
Not sure	7	2.5	2.5	4.4
Agree	151	54.9	54.9	59.3
Strongly agree	112	40.7	40.7	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

It is clear in the above table that 95.6% of the respondents agreed that they pay tax in time, 2.5% were not sure and 1.8% disagreed. This implies that majority of the business community pay tax in time as stipulated by Rwanda Revenue Authority. Timely payment of tax allows government meet quarterly work plan adequately hence effective service delivery.

Willingness of payment of tax

Table below shows respondents’ perception on whether they pay tax willingly

WILLINGNESS TO PAYMENT OF TAX

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	14	5.1	5.1	5.1
Not sure	41	14.9	14.9	20.0
Agree	135	49.1	49.1	69.1
Strongly agree	85	30.9	30.9	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

The above table pictured out that 80% of the respondents agreed that they pay tax willingly, 14.9% were not sure and 5.1% disagreed. This implies that majority of the respondents pay tax willingly. The Willingness of payment of tax by tax payers, make government to collect required revenue at an expected time, hence meeting their planned budget accordingly.

Willingness in declaration of source of revenue

Table shows respondents' perception on whether they declare their source of revenue willingly

Table 4.12 shows that 61.5% of the respondents agreed that they declare their source of revenue willingly, 34.2% disagreed and finally only 4.4% were not sure. This implies that to a large extent business community declare their source of revenue willingly which is attributed to tax education. The government should emphasize on the importance tax declaration in order to allow the tax payers comply on declaring their sources of income accordingly.

TABLE 4.12
WILLINGNESS IN DECLARATION OF SOURCE OF REVENUE

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	41	14.9	14.9	14.9
Disagree	53	19.3	19.3	34.2
Not sure	12	4.4	4.4	38.5
Agree	130	47.3	47.3	85.8
Strongly agree	39	14.2	14.2	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

Awareness about tax rules and regulations

The table shows respondents' perception on whether they are aware about tax rules and regulations

Table 4.13 shows that 38.8% of the respondents agreed that they are aware about tax rules and regulations, 35% disagreed and 26.2% were not sure. This implies that the business community they are aware about tax rules and regulations as agreed by the majority of the respondents. Clients should be sensitized about rules and regulations on tax compliancy so the they able to comply with required law effectively.

AWARENESS ABOUT TAX RULES AND REGULATIONS

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	56	20.4	20.4	20.4
Disagree	41	14.9	14.9	35.3
Not sure	72	26.2	26.2	61.5
Agree	94	34.2	34.2	95.6
Strongly agree	12	4.4	4.4	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

Tax Identification Number

The Table shows respondents' perception on whether they have Tax Identification Number

TAX IDENTIFICATION NUMBER

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Not sure	6	2.2	2.2	2.2
Agree	187	68.0	68.0	70.2
Strongly agree	82	29.8	29.8	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

Table above shows that 97.8% of the respondents agreed that they have Tax Identification Number and 2.2% were not sure. This implies that business community (tax payers) has Tax Identification Numbers as agreed by the majority of the respondents. Tax Identification Numbers helps revenue authority to register all tax payers and account for them affectively especially in identifying their tax base.

Effect of Tax Knowledge on Tax Compliance among Kigali Business Community

Assessing the effect of tax knowledge on compliance among the Kigali business community

Tax knowledge has helped me to pay the right amount of income tax

The Table shows respondent's views on whether Tax knowledge has helped them to pay the right amount of income tax

TAX KNOWLEDGE HAS HELPED ME TO PAY THE RIGHT AMOUNT OF INCOME TAX

responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	6	2.2	2.2	2.2
Disagree	22	8.0	8.0	10.2
Not sure	43	15.6	15.6	25.8
Agree	125	45.5	45.5	71.3
Strongly agree	79	28.7	28.7	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

This table highlights that 74.1% agreed that Tax knowledge has helped them to pay the right amount of income tax, 15.6% were not sure and 10.2% disagreed. This implies that Tax knowledge has helped them to pay the right amount of income tax as agreed by majority respondents.

Tax knowledge has helped me know of the penalty by the RRA if I do not comply

Table shows respondent's views on whether Tax knowledge has helped them to know of the penalty by the RRA if they do not comply

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	41	14.9	14.9	14.9
Disagree	55	20.0	20.0	34.9
Not sure	51	18.5	18.5	53.5
Agree	100	36.4	36.4	89.8
Strongly agree	28	10.2	10.2	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

This table shows that 46.6% agreed that Tax knowledge has helped them know of the penalty by the RRA if they do not comply, 34.9% disagreed and 15.6% were not sure. This implies that Tax knowledge made business community know of the penalty by the RRA if they do not comply since the majority agreed from the findings above.

Tax knowledge has made me feel morally obliged to honestly declare my tax liabilities

The following table shows respondent's perception on whether Tax knowledge has made them feel morally obliged to honestly declare all their tax liabilities

TAX KNOWLEDGE MADE ME FEEL MORALLY OBLIGED TO HONESTLY DECLARE MY TAX LIABILITIES

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	14	5.1	5.1	5.1
Disagree	41	14.9	14.9	20.0
Not sure	17	6.2	6.2	26.2
Agree	129	46.9	46.9	73.1
Strongly agree	74	26.9	26.9	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

The observation in the above table shows that 73.8% agreed that tax knowledge has made them feel morally obliged to honestly declare all their tax liabilities, 20.0% disagreed and 6.2% were not sure. This implies that Tax knowledge has made them feel morally obliged to honestly declare all their tax liabilities since the majority agreed from the findings above.

Tax knowledge has made me use the filling system easily to remit tax claims

The next table shows respondent's perception on whether Tax knowledge has made them use the filling system easily to remit tax claims

TAX KNOWLEDGE HAS MADE ME USE THE TAX FILING SYSTEM EASILY TO REMIT TAX CLAIMS

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	14	5.1	5.1	5.1
Disagree	51	18.5	18.5	23.6
Not sure	41	14.9	14.9	38.5
Agree	142	51.6	51.6	90.2
Strongly agree	27	9.8	9.8	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

Table 4.18 shows that 61.4% agreed that Tax knowledge has made them use the tax filing system easily to remit tax claims, 23.6% disagreed and 14.9% were not sure. This implies that Tax knowledge has made them use the tax filing system easily to remit tax claims since the majority agreed from the findings above.

Tax knowledge has made me respect RRA rules and regulations

The above table shows respondent's perception on whether Tax knowledge has made them respect RRA rules and regulations

Table 4.19 shows that 84.4% agreed that Tax knowledge has made them respect RRA rules and regulations and 14.9% were not sure. This implies that Tax knowledge has made them respect RRA rules and regulations basing on the majority response.

TAX KNOWLEDGE HAS MADE ME RESPECT RRA RULES AND REGULATIONS

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Not sure	41	14.9	14.9	14.9
Agree	191	69.5	69.5	84.4
Strongly agree	43	15.6	15.6	100.0
Total	275	100.0	100.0	

Source: Primary data, 2015

Relationship between Tax Knowledge and Tax Compliancy

This table shows relationship between tax knowledge and tax compliancy

TAX KNOWLEDGE HAS REDUCED/ ELIMINATED THE FINES AND PENALTIES

Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	5	1.8	1.8	1.8
Not sure	8	2.9	2.9	4.7
Agree	97	35.2	35.2	39.9
Strongly Agree	165	60.0	60.1	100.0

Source: Primary data, 2015

It is clear that taxpayer’s knowledge of tax and its implications has reduced the level of fines and penalties where 60% strongly agree that their knowledge of tax has helped them to pay their tax on time, to declare the true amount; therefore avoiding the payment of fines and penalties.

Tax knowledge through different tools of communications/education as workshop, community work media etc. is of paramount for the Rwanda revenue authority (RRA), in the task collections and taxpayer’s compliance.

RELATIONSHIP BETWEEN TAX KNOWLEDGE AND TAX COMPLIANCY

Correlations of Independent and Dependent Variable		Tax knowledge	Tax compliancy
Tax knowledge	Pearson Correlation	1	.656**
	Sig. (2-tailed)		.000
	N	275	275
Tax compliancy	Pearson Correlation	.656**	1
	Sig. (2-tailed)	.000	
	N	275	275

** . Correlation is significant at the 0.01 level (2-tailed).

The table 4.21 is giving the relationship between Tax knowledge and Tax compliancy in Rwanda whereby the respondents N is 275 and the significant level is 0.01, the results indicate that independent variable has positive high correlation to dependent variable equal to .656** and the p-value is .000 which is less than 0.01. When p-value is less than significant level, therefore researchers conclude that variables are correlated and null hypothesis is rejected and remains with alternative hypothesis. This means that there is a significant relationship Tax knowledge and Tax compliancy in Rwanda. As conclusion Tax knowledge contributes positively to Tax compliancy.

CONCLUSION AND RECOMMENDATIONS

The study was mainly concerned about the influence of knowledge on tax compliance. This summary was based on the objectives of the study.

The findings shows that Rwanda Revenue Authority have various strategies in promoting tax education and these includes: workshop to deferent categories of tax payers, mass media by use of television, radio talk show, seminars and community Sensitization through community work in spite of few challenges in some few areas. Rwanda Revenue Authority needs to improve on their tax education strategies in order to improve on tax compliancy.

The respondents stated that the Level of tax compliance among the Kigali business community is good they have good record keeping system; they pay tax timely, they pay tax willingly since it is their obligation. The respondents further stated that tax payers in Kigali business community have declare their source of revenue willingly, they are aware about tax rules and regulations and all in all tax payers have Tax Identification Numbers which means they have subscribed as potential tax payers

From the findings it was established that tax knowledge greatly influences the level of tax compliance among the Kigali business community simply because it has helped them to pay the right amount of income tax, to know of the penalty by the RRA if they do not comply, has made them feel morally obliged to honestly declare all their tax liabilities.

The respondents also stated that Tax knowledge has made them use the tax filing system easily to remit tax claims and all in all Tax knowledge has made them respect RRA rules and regulations. It was further established that there is a strong relationship between Tax knowledge and Tax compliancy in Rwanda whereby the respondents N was 275 and the significant level was 0.01, the results indicated that independent variable has positive high correlation to dependent variable equal to .656** and the p-value is .000 which is less than 0.01. When p-value is less than significant level, therefore researchers conclude that variables are correlated and null hypothesis is rejected and remains with alternative hypothesis. This means that there is a significant relationship between Tax knowledge and Tax compliancy in Rwanda. In conclusion therefore Tax knowledge contributes positively to Tax compliancy.

The research was concluded using different specific objectives as follows;

The findings shows that Rwanda Revenue Authority have various strategies in promoting tax education and these includes: workshop to deferent categories of tax payers, mass media by use of television, radio talk show, seminars and community Sensitization through community work in spite of few challenges in some few areas. Rwanda Revenue Authority needs to improve on their tax education strategies in order to improve on tax compliancy.

It is stated that the level of tax compliance among the Kigali business community is good they have good record keeping system; they pay tax timely, they pay tax willingly since it is their obligation. Tax payers in Kigali business community have declare their source of revenue willingly, they are aware about tax rules and regulations and all in all tax payers have Tax Identification Numbers which means they have subscribed as potential tax payers.

The findings shows that tax knowledge greatly influences the level of tax compliance among the Kigali business community because it has helped them to pay the right amount of income tax, to know of the penalty by the RRA if they do not comply, has made them feel morally obliged to honestly declare all their tax liabilities. Tax knowledge has made them use the tax filing system easily, to remit tax claims and made them respect RRA rules and regulations. It was further established that there is a strong relationship between Tax knowledge and Tax compliancy in Rwanda whereby the respondents N was 275 and the significant level was 0.01, the results indicated that independent variable has positive high correlation to dependent variable equal to .656** and the p-value is .000 which is less than 0.01. When p-value is less than significant level, therefore researchers conclude that variables are correlated and null hypothesis is rejected and remains with alternative hypothesis.

This implies that there is a significant relationship between Tax knowledge and Tax compliancy in Rwanda. In conclusion therefore Tax knowledge contributes positively to Tax compliancy.

The following are recommendations to the study by objectives:

Rwanda should establish an aggressive policy in order to promote tax education for effective compliancy among business community.

Rwanda Revenue Authority should provide massive workshop and seminars on Tax Compliancy

Rwanda Revenue Authority should provide Tax Sensitization during community work

Rwanda Revenue Authority should also provide Tax Sensitization through social media in order tax knowledge on compliance can be more effective

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**Improving Elementary Education in Egyptian Rural Society:
Contribution of a Japanese Traditional Method for Inspiring Egyptian Teachers and
Pupils**

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ABSTRACT

Introducing Japanese traditional card playing *Karuta* and daily activity note *Nisshi*, which have been adopted widely as educational tools at most schools, we cultivate an Egyptian way of sustaining education reform. In the process, we pay special attention to the Mother (National) Language for fostering the ability to think in accordance with reading, writing, and speaking ability. Our previous experiment shows that children's international communication provides an impetus for the desire to learn more. A good environment for children brings forth positive attitudes from parents in turn, then sound households lead to a gradual improvement of the rural community.

Keywords: Elementary education, Mother (National) Language, Active Learning, Self-sustaining, Education Reform, Rural Area Development

INTRODUCTION

For learning any subject it seems the Mother (National) Language has a crucial role for fostering the fundamental ability to think. Prof. Toshihide Masukawa (1940-) is the 2008 Nobel Laureate in Physics. Unconventionally, he delivered the commemorative speech at Stockholm in Japanese language excusing himself by saying that, "I'm sorry, I can't speak English" [Masukawa 2008].

Indeed Prof. Masukawa is not good at English, however he receives sufficient understanding by reading English articles. Therefore, he comes up with innovative ideas and he finally arrived at an unprecedented achievement in physics. The famous Japanese novelist Sai-ichi Maruya (1925-2012) has predicted that language has essentially two functions: communication and thinking [Maruya 2002]. Even another Japanese Nobel Laureate (2000 in Chemistry), Hideki Shirakawa (1936-) points out that if a student cannot think something nor express it in own language, then he cannot express it in English [Shirakawa 2016].

Thus, we focus on foreign language (English) learning by the steady understanding of the native language, both in cases in Egypt and Japan. Because we stress the fundamental importance of Mother (National) Language in education, our consideration has capacity for extending its scope to other learning subjects¹.

LITERATURE REVIEW

Regardless of whether it is a developed country or not, there might be no objection to the significance of elementary education for the development of society and its stability. In the case of a developing country, however, we often hear voices insisting on supporting children who cannot enjoy the right to education because of economic reasons or an underdeveloped social system. Even in such cases, we cannot find a practical analysis how to ensure the children's right to education in the region, nor how efficient education should be provided at school [Yousafzai 2013].

It is taken for granted, for example, that there should be different methodologies for teaching English for Egyptian children and for Japanese children. Not because of different social environments, but because of the nature of each language, we have to consider first that English teaching methods must apply to different

approaches in each case. This paper focuses on the difference of historical and cultural backgrounds in the regions, rather than on pure educational methodologies nor idealistic advocacy.

It is our expectation that educational programs should be conducted generally in consideration of regional diversity. Although the controversy has continued until now in terms of ESL (English as a Second Language) methods for non-English speakers, we emphasize the significance of the traditional heritage of region: history, culture, and language [Diep 2013].

THEORETICAL SECTION

On the basis of BFS (Big Five Scales) analysis [Fig. 1], we have to treat Egyptian (Minia city) children and Japanese (Kitami city) children separatelyⁱⁱ. As for Japanese children, they have a well-arranged educational environment, therefore we need to improve their passive attitude by applying Active Learning theory. For that purpose, international communication with Minia children has given a significant impact on Kitami children. Drawing *Karuta* in English and Japanese for introducing their own culture, Kitami children have been caught up in its preparation. They put questions one after another about Japanese traditional culture, and actively fill it up. For applying Active Learning in Japanese schools, which has been a recent priority for national education reform, we can see the positive contribution of international communication methodsⁱⁱⁱ.

Communication with Kitami children attracts Minia children's heart too. However, the problem for Minia children is broader than the Kitami case. From insufficient facilities to an unimaginative textbook, we are required to solve the problems one by one. Turning their stimulated minds to making *Karuta*, we encourage them to introduce their own traditional culture in their own language as well as in English. Different from the Kitami children, they aren't accustomed to shaping a cards with scissors and paste. Cut-and paste work by hand is a kind of practice for them to draw on all of their physical abilities in learning. Here again, we confront an inescapable difficulty of Minia children: They cannot write what comes into their minds in Standard Arabic^{iv}.

EMPIRICAL SECTION

Under the social circumstances and personal traits of school children in both countries, we try to pursue more positively the Minia children through the ASHAP (All Share Humanity And Peace, informal NGO) project^v. It has engaged in experimental education reforms as an extracurricular activity in Minia with voluntary teachers' support. In order to improve the ability in their own language, we asked the children to compose *Nisshi* (a daily activity log) before and after *Karuta* preparation. "What is the main assignment for your work today, and how did you deal with it today?" We asked the children to write down even trivial things after work. Its purpose is to keep them aware of their own conduct, and at the same time we intend to check on their writing and thinking abilities.

Preliminary results show clearly that children cannot distinguish their Mother (National) Language (Standard Arabic) from their Mother tongue (Egyptian colloquial) in all respects: words, phrases, and grammar. We must rely on the Constructive Instructional Model for the enhancement of learning habits: physical applications by cutting-and-pasting, drawing pictures and writing words and phrases on *Karuta* and *Nisshi* within the scope of the social milieu [Fig. 2].

In addition, the children's theme of composing *Karuta* has concentrated on familiar objects: Egyptian fauna and flora for example. Through this medium, we intend that children will engage in this work in their homes as well. Children might ask their parents about Egyptian animals and plants. Even uneducated parents can respond to these kinds of questions. Parents will be pleased with their children's learning, and they will also become confident in themselves because they can watch over their children's learning.

When we asked some small shop owners in the city not to dispose of empty boxes, they initially wondered at our request. After they came to realize that we make use of empty boxes for *Karuta* cards, they whistle a different tune saying that they also want to contribute to children’s learning. Through overall involvement of the households, parents, and the neighborhood, we can improve the children’s learning environment for the realization of general education reform in Egyptian rural society. It takes a long period of time to accomplish, but this is what is necessary.

CONCLUSION

Japanese *Karuta* derives its name from Portuguese *carta* (card in English). However, the playing of *Karuta* has roots in *Kai-awase* (combing two bivalves of a shell) which has been played among the aristocracy since Heian period (the late 8th cent to the end of the 12th cent). We can easily find paintings portraying people playing *Karuta* in the Edo period (the 17th to the late 19th cent). As a matter of course, a lot of today’s people use it, either for amusement purposes or as learning tools. Most elementary children learn variety of words, phrases, and traditional verses through *Karuta* playing^{vi}. Even Japanese-born Muslim children, regardless of their nationality and ethnicity, enjoy *Karuta* as a tool for learning Islamic culture and rituals of faith in Japanese^{vii}.

Learning through five senses with physical applications, and learning also in their own languages, such children are able to reach their learning targets. They will then be able to express themselves in English, and they can put things into practice in the right way. We expect that an effective education of children will lead to the construction of a wholesome society and its sound development.

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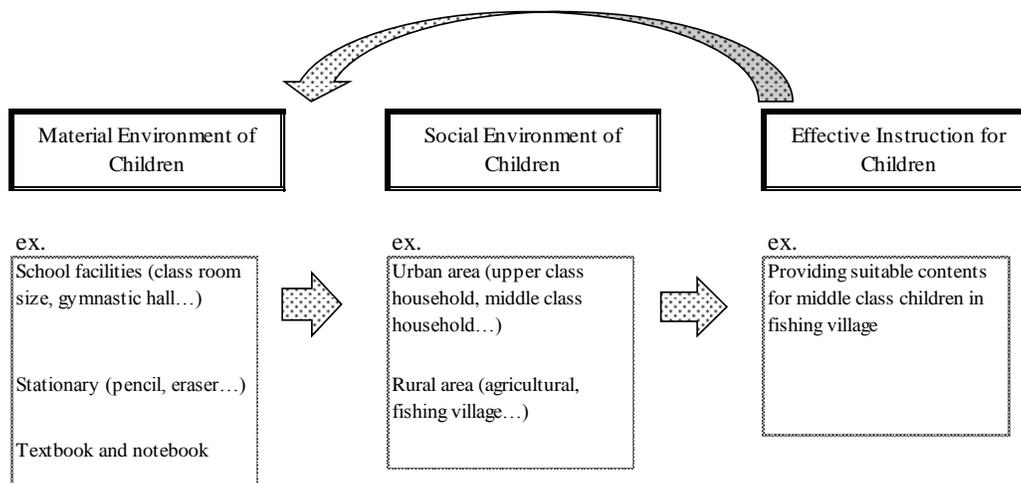
APPENDICES

Fig. 1 Comparison of Egyptian and Japanese School Children by Big Five Scales

	Neuroticism	Extroversion	Openness	Agreeableness	Conscientiousness
Egypt	Passive lesson attitude, focused on memorization	High sociability, idle talking during lesson, receiving on-sided knowledge	lesson by written text, poor self-learning tools	limited cooperative activity (only in language learning)	<i>ad hoc</i>
Japan	Positive for discovering knowledge	Low sociability, shy, passive response during lesson, cooperative learning	wider experience (art and creative activity)	cooperative learning experience inside/ outside classroom	advance preparation, confirmation of learning objectives

*Data for Japan has been collected by Zanaty through ALT in Kitami-city (since 2002). Data for Egypt has been collected through ASHAP activity (since 2013).

Fig.2 Constructive Instruction Model in X Region (for Teachers View)



*Arranged from Zanaty, Hussei, *A Learning Cycle Model in Education for Sustainable Development*, Dissertation (Kitami Institute of Technology), 2015

ENDNOTES

- i. Torikai 2014, pp. 162-165.
- ii. Osawa 2002, 18-19.
- iii. “Education Renaissance No. 2027. Active Learning 1”. 13 Mar 2013. The Yomiuri Shimbun.
- iv. Akutsu 2016, pp. 342-345.
- v. “Risāla Ḥubb min Atfāl al-Miniyā”, 12 Nov 2014, al-Jumhūrīya.
- vi. “Hardball Competition for Karuta: Elementary School Pupils from Across the Country”, 21 February 2016, The Yomiuri Shimbun.
- vii. Iwaguchi, Ryuji (Arab Consulting Service Tokyo), “Project: Karuta for Welcoming Muslim”, (Since Dec 2013).

The Role of Social Entrepreneurship in African Women
A Human Rights Law Perspective

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ABSTRACT

Due to a variety of reasons, the world is changing. Many of these changes are societal and are dynamic and complex. Some of these changes effect women more than men. Poverty, for example, has such a profound effect on women that if poverty was a government sponsored program, the program would be “sexist”, as noted by any women’s right activists. Seventy percent of world’s poor are women. Women do 2/3 of the world’s work and grow half of the world’s food and yet 2/3 of the world’s women live in poverty. Research links poverty to gender-based violence, sex trafficking and other issues that negatively affect women.

Human problems are complex. People are constantly devising new strategies and mechanisms to address these complex problems. Social entrepreneurship (SE) combines innovation and business skills to create solutions to pressing social, economic, and environmental problems. Although SE is a fairly new concept, its implementation in some African countries has been proven to be effective. Kenya and, South Africa are leading examples of this assurance.

SE FROM THE HUMAN RIGHTS LAW PERSPECTIVE

According to many international human right instruments, and particularly in the case of African women article 13 of the protocol to the African Charter on Human and People’s rights on the Rights of Women, States have an obligation to provide for the realization of human rights, including economic rights of its citizens. However all states are not on the same economic footing, which the International Covenant on Civil, Economic and Social Rights recognizes in article

2(1). 1.

Each State Party to the present Covenant undertakes to take steps, individually and through international assistance and co-operation, especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all appropriate means, including particularly the adoption of legislative measures.

Social entrepreneurship initiatives can help the government fulfill its obligation. It can fill the gap the government and non governmental organizations (NGOs) are not able to effectively fill.

My presentation will address the following questions and I will use the policy-oriented jurisprudence methodology:

1. Does international law define SE? What is the importance of a universal or regional definition or recognition of SE? How can governments encourage SE initiatives in order to promote women's rights? What measuring impacts should we consider?
2. Is it necessary to provide domestic laws that advance SE in order to promote women’s rights? Or if a country is contemplating making new laws, should it consider or base its legislation on the incorporation of international human rights conventions or instruments?
3. As a continent blessed with variety of cultures and home to various tribes, how important is culture specific approach to SE?

DELIMITATION OF THE PROBLEM

“What we’ve done to encourage innovation is make it ordinary.”

Africans have always been innovators. From the great pyramids of Egypt, the traditional medical healers in Namibia, to the ground breaking architectural monuments of Lalibela, Ethiopia are illustration of this fact. African women in particular due to environmental, cultural and social challenges they face every day replicate the saying of Plato “necessity is the mother of invention” in their lives almost every day.

Innovation and development are two sides of the same coin. When business ideas are believed, they are nurtured by investors, protected by lawyers, and turned into reality by business developers. If Steve Jobs ideas or vision for apple Inc. were not backed up by this process, the world would have missed one of the greatest inventions of human kind and would have been deprived of the alleviation of standard of life by the Macs, iPhones and iPads. By the same token if we are arguing that Africans are innovators, why are we not seeing development following up their invention? Why is our subconscious mind compelled to relate Africa or African children when it sees NGOs or Charity organizations on TV commercials?

Some argue one of the reasons for this is the dysfunctional system of foreign Aid. Billions of dollars have been donated to Africa in the name of charity and tremendously failed to fulfill their intention only to show that any solution to a problem that is designed to correct a weakness as oppose compensate an accomplishment¹ undermine the process of development. Any type of Aid that cannot transform a skill, provide opportunity for growth, or promote financial independence, is doomed from having a long term sustainable success and development.

According to Nick Moon,² due to luck of opportunity African ideas and inventions are neither identified nor targeted. Even if and when targeted they cease to develop for reasons of underutilization of human capital, lack of financial support, weak Intellectual property laws and many other policy defaults.

In 2006, the Economist proclaimed that women are “the world’s most underutilized resource.” Since then, a growing body of research has reinforced the idea that the economic empowerment of women can significantly boost productivity, reduce employee turnover, and promote the sustainable development of consumer markets. -

A Booz & Company study published in 2012 estimated that raising female employment to male levels could increase GDP by 34 percent in Egypt, by 12 percent in the United Arab Emirates, by 10 percent in South Africa, and by 9 percent in Japan³ The UN’s Food and Agricultural Organization has projected that giving women the same access as men to resources such as fertilizer and farm equipment could increase their productivity by 20 percent to 30 percent and, in turn, boost agricultural output in developing countries by 2.5 percent to 4 percent.³ Findings of this kind have spurred an increasing number of global corporations to create programs designed to empower women economically⁴. Through such programs, corporate leaders

¹Andrew M. Mwenda, founding managing editor of Ugandas The Independent. The Independent is Ugandas premier current affairs news magazine and one of the major mainstream news organizations in East Africa.<https://www.youtube.com/watch?v=gEI7PDrVc9M> last visited on 02/14/16; 4:30pm)

²Co-Founder and Director, KickStart Kenya, Kenya; Social entrepreneur<https://www.youtube.com/watch?v=OC85SpS5fds>, last time watched on 03-4-16)

³- Stanford innovation Review, See more at: http://ssir.org/articles/entry/empowering_women_at_the_grassroots#sthash.g2aAWTZz.dpuf (last visited on 2-10-16, at 2:38pm)

⁴ ibid

aim to improve the quality of their supply chains, enhance their access to talent, and increase the productivity of their workforce.

WOMEN ENTREPRENEURSHIP; OPPORTUNITIES AND CHALLENGES

*“One of the biggest growth markets in the world may surprise you. You’ve heard about the opportunities opening up in countries like China, regions like Asia and industries like green technology. But one major emerging market hasn’t received the attention it deserves: **women.**”*

Hilary Clinton

Central to inclusive and sustainable industrial development is the urgent need to harness the economic potential of women – half of the world’s population. 3/4 of micro entrepreneurs of the world are women. 60 to 80 percent of the food for local consumption in developing countries is produced by women⁵.

It is estimated that by 2020, 870 million women who have been living or contributing at a subsistence level will enter the economic mainstream for the first time as producers, consumers, employees and entrepreneurs.ⁱ The economic impact is expected to be staggering, with profound effects on global development as a whole.

Studies have reported that raising female employment to male levels can have a direct impact on GDP growth rates, increasing it by as much as 34% in some countries,ⁱⁱ and that countries’ productivity can increase by as much as 25% if discriminatory barriers against women are removed.⁶

Women are more likely than men to invest a large proportion of their household income in the education and well-being of their children. When women are empowered to make an income, accumulate assets and increase their economic security, they improve industrial

IDENTIFICATION OF CLAIMANTS

Policy oriented jurisprudence mandates that claimants have to be identified so that past and futures decision conditions could be identified and analyzed to give concrete policy results. Claims are created when there is a tension between two or more rights. Typical example is when an individual claim that his/her right of movement is violated by the government while the government counter claim it is limiting such right for reasons of national security or public safety. In the case of Social Entrepreneurship, the fact that it is not universally or regionally recognized as a tool for the realization of any rights, the claims can be found on the instruments themselves. It is in the commission and omission of the intentional Human rights law. The COCSR, ICCPR, OAU, protocol command the government to promote, respect and fulfill the rights of women while failing to identify SE as a tool to achieve such goals.

INTERNATIONAL HUMAN RIGHTS LAW

“To deny people their human rights is to challenge their very humanity.”
Nelson Mandela

The reason why Human rights law came into existence in 1948 and not before is because of the concept of absolute sovereign power of the state. Ideally states were (still are) expected to respect the basic rights of their subjects, and any type of intervention by the international community or UN was considered to be a violation of state sovereignty. However, after the devastating facts of 2nd World War where states such as

⁵ World of Work Report 2014, developing with jobs 21-34

⁶ supra note 1

Germany omitted their duty to protect and turned to perpetrators of crimes against their own people, intervention became necessary. Hence the Universal Declaration Of Human Rights was born in 1948. This was followed by the international covenant on civil and political rights, International covenant on Social and Economic rights and many international and regional instruments. The fundamental expectation of Human rights law is obligate the states to protect rights of individuals on one hand, refrain from interfering with the individual rights on the other.

The International covenant on Social and Economic rights⁷ as its name indicates lays the general economic, social, and cultural rights of individuals. The Optional Protocol to the International Covenant on Economic, Social and Cultural Rights (ICESCR)⁸ enables individuals to seek justice internationally, if they have been denied access to justice domestically was adopted in 2008 and entered into force 2013.

In the UN Human Rights Treaty System, an Optional Protocol grants the human rights Committees judicial powers. That is, through an Optional Protocol the Committee can begin to review individual complaints in a similar way to that of a traditional human rights court. One of the strengths of an Optional Protocol to the ICESCR is the potential role it could play in securing the implementation of economic, social and cultural rights in countries around the world. It also contributes to the universality and indivisibility of human rights. At present, some governments continue to challenge the validity of economic, social and cultural rights, claiming that they are not “justiciable”, that is that there is no legal right which attaches to them. Adoption of an Optional Protocol to ICESCR change this perception, and finally provide equality between civil and political and economic, social and cultural rights.

AFRICAN CHARTER ON HUMANS AND PEOPLE RIGHTS

"We will not enjoy security without development, we will not enjoy development without security, and we will not enjoy either without respect for human rights."

—former UN Secretary-General Kofi Annan

The idea of drafting a document establishing a human rights protection mechanism in Africa was first conceived in the early 1960's. The Charter establishing the Organization of Africa Unity (OAU) imposed no explicit obligation on member states for the protection of human rights. It instead promoted decolonization of the states from European colonies, freedom from apartheid, people's self determination and other collective rights. Human rights of African people was not recognized until the African union and later the African Charter on Human and Peoples' Rights came into existence.

The unique characteristics of African human rights law are that it puts family and community values over individual rights. It recognizes the individual's rights and duties towards their family. not only that individuals families have the right to be protected by the state,(art 18⁹) but so is the individual, he or she is owed a duty towards the family.(art 27)

Article 27

⁷Adopted and opened for signature, ratification and accession by General Assembly resolution 2200A (XXI) of 16 December 1966 entry into force 3 January 1976, in accordance with article 27

⁸<http://www.ohchr.org/EN/ProfessionalInterest/Pages/OPCESCR.aspx>

1. The family shall be the natural unit and basis of society. It shall be protected by the State which shall take care of its physical health and moral.

2 The State shall have the duty to assist the family which is the custodian of morals and traditional values recognized by the community.

3 The State shall ensure the elimination of every discrimination against women and also ensure the protection rights of women and the child as stipulated in international declarations and conventions.

4 The aged and the disabled shall also have the right to special measures of protection in keeping with their physical or moral needs.

1 Every individual shall have duties towards his family and society, the State and other legally recognized communities and the international community.

2 The rights and freedoms of each individual shall be exercised with due regard to the rights of others, collective security, morality and common interest.

This preference of collective rights over individual rights often creates contradiction in understanding the intention of the instrument. If a widowed in Rwanda wants to go to work in one of the social enterprises in South Africa after giving up her kids for adoption, her in-laws opposing her action may cite article 18, while her lawyer may use article 22 to demand the government of Ghana to protect her economic right.

Another controversy in article 18 is the definition of family. Article 18 defines the “family” as the custodian of morals and traditional values recognized by the community. This entails that if any African family fails to meet the criteria of a “family” defined by social or cultural perceptions of the community, its protection is not guaranteed under this article.

PROTOCOL TO THE AFRICAN CHARTER ON HUMAN AND PEOPLES' RIGHTS ON THE RIGHTS OF WOMEN IN AFRICA

“The day will come when men will recognize woman as his peer, not only at the fireside, but in councils of the nation. Then, and not until then, will there be the perfect comradeship, the ideal union between the sexes that shall result in the highest development of the race.”

Susan Anthony

The Protocol to the African Charter on Human and People’s Rights on the Rights of Women in Africa was adopted in Maputo in July 2003, eight years after the commencement of the drafting process in Lomé, Togo in March 1995. This instrument is intended to protect the rights of women taking into account the cultural specificity of Africa and the special needs of African women which may not be adequately addressed by the CEDAW. The rights of women enshrined in this instrument extend the right for personal security to abolition all forms of harmful practices.

Article 13 of the protocol recognize the economic and social welfare of African women and calls states to adopt and enforce legislative and other measures to guarantee women equal opportunities in work and career advancement and other economic opportunities.

THE NON ENFORCEABILITY NATURE OF HUMAN RIGHTS LAW

One of the downside of International law is the fact that its enforceability depends on a mere sense of legal obligation of the states unless the treaty is a self-executing treaty¹⁰. If a member state of a covenant doesn't want to implement the treaty it signed and ratified, there is no judicial body that can force it to face legal consequences for its actions. However, domestic laws are enforced in national courts. Women can file complaints, suits, and get subsequent remedies. Hence making and implementing legislative laws that foster Women Social entrepreneurship and innovation should be one of the priorities of a country (foot notes)

¹⁰A self-is a treaty that becomes judicially enforceable upon ratification. As opposed to a non-self executing treaty, which becomes judicially enforceable through the implementation of legislation. A treaty could be identified as either self executing or non-self executing by looking to various indicators, including statements that are made by Congress or the Executive regarding the treaty, indeterminate language of the treaty, or if the treaty deals with a matter within the exclusive law-making power of Congress, indicating that Congress must create implementing legislation.

**THE IMPORTANCE OF DEFINITION OF SOCIAL ENTREPRENEURSHIP
(AND HOW ITS ABSENCE CAN BENEFIT AFRICANS)**

A definition describes the basis of integration and essential nature of a specific concept. It differentiates all other particulars from those included under the concept. For example in criminal law an act that is not specifically defined as an offense fails to constitute a crime regardless of its constitute elements and nature. Internationally recognized crimes such as “crimes against humanity” “genocide” “slavery” had to specifically defined and accepted as such before gaining universal recognition.

There is no universal definition of SE in international law. As a result of this default, SE is called many things by many. However all of these definitions possess similar elements; purpose and profit. It tends to tackle social and environmental challenges of the world using entrepreneurship and innovation as tools.

Ironically the fact that there is no uniformed definition of SE yet may be a blessing in disguise for Africans. The existing Human Rights Law is criticized for being Europe and the western world oriented which is not African culture, social structure inclusive. African feminist in particular criticize western feminists and their human rights arguments on FGM. They claim that the universally accepted concepts of women rights undermine their culture and social rights. Some even coined it as “other form of imperialism.” Hence this may be an opportunity to voice and contribute definitions and concepts that represent African culture, solidarity and other values to the conventions to be formed.

**BUSINESS ENTREPRENEURSHIP AND SOCIAL ENTREPRENEURSHIP;
SIMILARITIES AND DIFFERENCES**

Inspiration, creativity, direct action, courage and fortitude are the characteristics of both Business and Social Entrepreneurship. Their differences lie on the type of people they serve. BE target is the market who is comfortable in paying for the product, while SE targets are the underserved, highly disadvantaged population who are because the financial burden or luck of political channel can't afford to pay for the product or service¹¹. Social Enterprises such as clean water, ¹²toms¹³, while making their profit are helping marginalized communities to realize their basic human rights, such as the right to life, and health.

**SE BALANCING CONVENTIONAL HUMAN RIGHTS LAW AND AFRICAN TRADITIONS
AFFECTING WOMEN**

“Culture is a way of coping with the world by defining it in detail.”
-- Malcolm Bradbury

Africa is the continent with the most ethnically diverse countries in the world¹⁴. One of the issues of Africans is that clash of conventional human rights and their culture or religion rights. Often rights of women enshrined in CEDAW may have a negative implications on Sharia obeying marriages or cultural obligations of women of a specific cultural or ethnic group. Social enterprises devoted to making social changes could be solution to this problem by balancing these rights. *Leminey* an online platform which serves as a market place for immigrant women entrepreneurs solve this challenge by creating the platform

¹¹Entrepreneurship, the case of definition; See more at http://ssir.org/articles/entry/social_entrepreneurship_the_case_for_definition (last visited 12/01/2015; at 3:10pm)

¹²clean water for the world is a social enterprise. see more here <http://cleanwaterfortheworld.org>

¹³Toms is a for-profit company based in Playa Del Rey, California. The company was founded in 2006 by Blake Mycoskie, an entrepreneur from Arlington, Texas.

¹⁴<http://www.insidermonkey.com/blog/the-10-most-ethnically-diverse-countries-in-the-world-335545/>(last visited on 03/-1/16, 5:20pm)

for vulnerable women that are culturally or socially discouraged to open physical shops in order to sell their products or services. Another example is that of *Ruby cups*¹⁵.

Many women and girls in Africa can't afford disposable menstrual hygiene products. In Kenya and other developing countries, menstruation is even linked to school absenteeism because girls are embarrassed about the potential 'leaking' of blood when non-protective materials, such as rags, old sock, dried mud or newspapers are used. Which can also lead to health problems. Ruby cups provided 15,000 cups to African women and girls.

TECHNOLOGY FOR HUMAN RIGHTS: AGILE GOVERNANCE AND THE FUTURE

“Whether we are aware of it or not we are living in the brink of a technological revolution that will fundamentally change us and the way we live.”

Klaus Schwab

In 2012 The Nigerian government started to publish its federal budget on the internet where young group of developers (from the private sector) simplified and made it readable to the public.¹⁶ People from all walks of life commented and shared the information given. The government collected a tremendous public opinion and revised its budget accordingly. Moreover, the people secured their right to access information and participate in the political process of their country.

Technology or the internet era affects our basic rights such as privacy, change how we do business, and challenge our policies and laws to change rapidly to cope up with its fast paced environment.

The First Industrial Revolution used water and steam power to mechanize production. The Second used electric power to create mass production. The Third used electronics and information technology to automate production. Now a Fourth Industrial Revolution is building on the Third, the digital revolution that has been occurring since the middle of the last century. It is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres.¹⁷

On the whole, there are four main effects that the Fourth Industrial Revolution has on business—on customer expectations, on product enhancement, on collaborative innovation, and on organizational forms. Whether consumers or businesses, customers are increasingly at the epicenter of the economy, which is all about improving how customers are served. Physical products and services, moreover, can now be enhanced with digital capabilities that increase their value. New technologies make assets more durable and resilient, while data and analytics are transforming how they are maintained.¹⁸ A world of customer experiences, data-based services, and asset performance through analytics, meanwhile, requires new forms of collaboration, particularly given the speed at which innovation and disruption are taking place.¹⁹ And the emergence of global platforms and other new business models, finally, means that talent, culture, and organizational forms will have to be rethought.

The beneficiary of this groundbreaking revolution are youths. Africa's over half of its population is below 35 years of age. The number of Africans that has access to mobile is higher than those that have access to clean water. And yet 10 to 20 percent of the African population is not connected to the internet. The

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¹⁶Omobola Johnson, Minister of Communications Technology of Nigeria;<https://www.youtube.com/watch?v=OC85SpS5fds> (last visited, 02/01/16; at 12:23am)

¹⁷ Klaus Schwab World Economic Forum. *The Fourth Industrial Revolution: what it means, how to respond*.

¹⁸ *Ibid*

¹⁹Charles S. Maier, John Micklethwait and Adrian Wooldridge, Foreign Affairs; *The Fourth Industrial Revolution*

distribution of Technology and its benefits is not balanced. Policies, Laws and subsequent infrastructure platforms for the technology to materialize are not in place to respond to these rapid changes. There are no digital IP laws, the number of ecosystems, incubators, accelerators is very low and is concentrated in one or two cities of the continent. We may have the tools such as mobile phones but we lack the necessary skills, deliberation to use such advancement.

Ultimately, the ability of government systems and public authorities to adapt will determine their survival. If they prove capable of embracing a world of disruptive change, subjecting their structures to the levels of transparency and efficiency that will enable them to maintain their competitive edge, they will endure.²⁰ If they cannot evolve, they will face increasing trouble.

This will be particularly true in the realm of regulation. Current systems of public policy and decision-making evolved alongside the Second Industrial Revolution, when decision-makers had time to study a specific issue and develop the necessary response or appropriate regulatory framework. Given the Fourth Industrial Revolution's rapid pace of change and broad impacts, legislators and regulators are being challenged to an unprecedented degree and for the most part are proving unable to cope.

Governments should start to learn from private sectors that are successfully administering technology. Incorporating agile governance, or collaborating to continuously adapt to new, fast-changing environment is one of the steps that it can take to overcome this challenge

MEASURING IMPACTS

International law doesn't apply directly to businesses. It applied to the states and through what states do domestically. It doesn't apply to companies except on rigorous gross violation of HR such as crimes against Humanity where domestic laws can apply for example under the US alien torts. There has to be guidelines/principles that govern impacts principles as oppose to rules so that they can be applied contextually, hence principle based frame work as oppose to rule based frame work.

When measuring SE, one should understand that social change is not an overnight success, it takes time and many other factors that may not be under its control. It is also wise to consider the challenges such as tariffs lack of venture capital, common market (intra African trade) when evaluating their work.

CONCLUSION

Some of the goals of Africa Agenda 2063 is to invest on its Human capital especially women and youth, to modernize agriculture using science, technology and indigenous knowledge, to eradicate poverty by improving incomes, creating jobs, providing basic necessity of life. For this to be done an integrated multi-disciplinary action is needed. The collaboration of different fields and sectors, such as Law, Technology, Innovation, and Entrepreneurship, programs that foster and monitor innovations is necessary.

New Regional and International convention that underlines the importance and defines SE inclusive of women rights should be adopted and ratified by all nation states.

²⁰Luciano Floridi, *How the infosphere is reshaping human reality*. Oxford University press, 2014(page 22-25)

Call for Papers



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