

DEVELOPMENT OF TOURISM AFFECTED BY CULTURE

Hossein Dehdaran

Tourism Industry technician, Tehran, Tehran

ABSTRACT

Tourism, which brings individuals and human communities into contact, and through them cultures and civilizations, has an important role to play in facilitating dialogue among cultures. Cultural and natural heritage, that attracts so many tourists, and is a resource for development, is, fortunately, distributed throughout the world, thus providing an additional opportunity for many non-industrialized countries. As we know, tourism industry is related to culture and economics, and developing the case in a society affects on sociology and it would be important in development of a country in some aspects. Raising awareness, educating and training the staff concerned, is essential in involving communities in the process of conserving and enhancing their heritage. It is the involvement of all that will enable the heritage of humanity to be better preserved, living conditions to be improved and poverty reduced. Preserving cultural and natural heritage, to bring it within reach of all, making cultures and civilizations better known, improving daily living conditions and reducing poverty, is what gives meaning to the sustainability of tourism development. However, these objectives depend upon the quality of the design and the implementation of tourism policies and activities - that is to say, their understanding of culture and their sustainability - which involves the participation of communities in the preservation and enhancement of cultural heritage in the long term. Further, the cultural tourism plays a significant role in the recovery of some districts zones, localities or towns.

Keywords: tourism Industry, Culture, Development.

INTRODUCTION

This is the purpose of this paper: to open a debate on the complex questions that surround the relations between culture and tourism, tourism and development, tourism and dialogue among cultures; questions that every decision-maker and actor engaged in tourism should address before a tourism project is launched. Being amongst people who use a different language, eat different foods, and behave in different ways is at the very heart of tourism. Experiencing directly different 'ways of life', can have a valuable educational function that stretches beyond tourism, and despite advances in communicative and virtual reality technologies it is difficult to emulate except through basic human contact, encounter and exchange. In a world where much conflict is a product of cultural misunderstanding, miscommunication and a basic lack of knowledge of the 'hows and whys' cultures are different, exposure to, and experience of, a wide variety of cultures in the most ordinary of ways is essential. Since tourism is nowadays used to stimulate regional development, cultural heritage tourism is used for, both preservation of regions as well as economic development of the regions. Cultural tourism can be defined as the subset of tourism concerned with a country or region's culture and its customs. Cultural tourism generally focuses on communities who have unique customs, unique form of art and different social practices, which basically distinguishes it from other types/forms of culture. Cultural tourism includes tourism in urban areas, particularly historic or large cities and their cultural facilities such as museums and theatres. It can also include tourism in rural areas showcasing the traditions of indigenous cultural communities (i.e. festivals, rituals), and their values and lifestyles. Preserving cultural heritage appears to be a key factor in economic policies supporting tourism development. It is a widely accepted fact that preservation of cultural heritage is important and it is also used as a tool for tourism product differentiation

From cultural to creative production

The expanded role for culture in tourism development mirrored the growth of culture as a factor of development in general. It is found that how the growth of culture-led development was tied to the workings of the symbolic economy. Culture provided the symbols, such as museums, art galleries and iconic architecture, which could be used to increase land values and stimulate business activity. This growth in turn supported employment in the cultural sector, strengthening its lobbying for more investment in culture. This produced powerful arguments to preserve the heritage of the past and expand contemporary culture in order to maximize the 'real cultural capital' of places. Culture has therefore come to play an important role in distinguishing places from each other. This is increasingly essential in a globalizing world where place competition is fierce, and cities and regions strive to create distinctive images for themselves.

One of the problems inherent in cultural distinction strategies is that many places adopt similar strategies (often copying or 'borrowing' ideas from one another), and therefore even 'culture' begins to lack distinction. The growth of 'serial reproduction' of culture epitomized by some researcher and the spread of signature architecture to cities around the world makes it harder and more expensive to use material culture to distinguish places.

The need to bundle and identify cultural resources led to the development of 'cultural quarters', 'cultural districts', 'creative clusters' or 'creative districts', where cultural and creative producers were clustered in order to generate a 'buzz'. In such a climate, the 'creative turn' became almost a logical successor to the cultural development process of previous decades.

The Tourism Promotion and Development Fund has emerged from the Tourism Promotion Fund Law that was passed in 1972. The purpose of the fund is to secure more capital for the growth of tourism industry. The Fund supports the construction of basic tourism facilities, construction and renovation of overall basic facilities, the development of accommodations and resort business, and for research activities that contribute to balanced tourism industry development.

Cultural Heritage Tourism

There is no singular, specific definition of either cultural or heritage tourism. Some call it cultural tourism, some heritage tourism, some cultural & heritage tourism or shortly cultural heritage tourism. Culture is a set of distinctive spiritual, material, intellectual and emotional features of society or a social group. It encompasses, in addition to art and literature, lifestyles, ways of living together, values systems, traditions and beliefs. The World has some 6000 communities and as many distinct languages. The National Trust's definition of cultural heritage tourism is "traveling to experience the places and activities that authentically represent the stories and people of the past and present. It includes historic, cultural and natural resources.". In 1985, World Tourism Organization (WTO) provided two definitions of cultural tourism. The narrower definition includes: "movements of persons for essentially cultural motivations such as study tours, performing arts and cultural tours, travel to festivals and other cultural events, visits to sites and monuments, travel to study nature, folklore or art, and pilgrimages." The wider definition includes: 'all movements of persons... , because they satisfy the human need for diversity, tending to raise the cultural level of the individual and giving rise to new knowledge, experience and encounters.' Heritage is a broad concept and includes the natural as well as the cultural environment. It encompasses landscapes, historic places, sites and built environments, as well as biodiversity, collections, past and continuing cultural practices, knowledge and living experiences. It records and expresses the long processes of historic development, forming the essence of diverse national, regional, indigenous and local identities and is an integral part of modern life. Cultural tourism market share development strategy focuses on promotion of the unique cultural aspects of a city or region, in order to draw tourists interested in those particular cultural subjects to the area. Heritage management, on the other hand is defined as management of regions' natural, cultural and built environments. As a strategy, this focus is gaining widespread acceptance nation wide and internationally among tourism offices and bureau to differentiate their cities, regions and states as desirable tourist destinations in an increasingly competitive marketplace.

CONCLUSION

In order to enhance attractiveness of the Temple Stay as a cultural resource, close collaborations are essential. The government, private religious organization, and other private expert organizations in terms of operational excellence should be involved in developing cultural resources efficiently and effectively. Above all, the central government should establish a relevant long-term plan to develop the Temple Stay program as the most attractive cultural tourism product in the world. The program should also benefit from private expertise in terms of operation and management.

There are a number of strategies to develop the temple resources into cultural tourism attractions: First, it is to build a convenient, clean, and comfortable infrastructure including accommodation facilities, meditation places reflecting the traditional cultural spirit, and restaurant facilities to experience Buddhist food, etc. The government's role is to finance the construction of this infrastructure. In fact, the Korean government plans to invest more than 80% of the total cost of innovating facilities, while religious organizations share about 10% of finance.

Second, it is to bundle available cultural attractions around temples to create a themed set of attractions that collectively constitute a primary attraction. Airfare, accommodation, ground transport, and a variety of other services are combined to create a new product. Bundling, within a cultural tourism context, typically involves combining a variety of similarly themed products and experiences and promoting their collective consumption to the visitor". The Temple Stay should be bundled with other tourism assets that exist in local communities.

In this way, the economic benefit of cultural tourism is dispersed more widely. More important, bundling helps create a theme for a place, creating a stronger sense of destination for the tourist by invoking many places with similar meanings. In line with this implication, community involvement in the development and sustainability of cultural tourism should be made.

Third, it is very important to foster skilled human resource for the Temple Stay. The program for training the guide should be provided by the public and private sectors. The Temple Stay guide is an individual who helps domestic or foreign tourists with cultural experiences by explaining them and imparting an accurate understanding of Korean Buddhism and cultural relics and local culture. The program aims to recruit and train Temple Stay guides to satisfy the demand related to tour packages, including cultural experience products and the facilitated discovery of historical relics, rather than the simple experience of the temple.

The impact of the tourism development in given areas could and must be controlled by adequate planning, development and management. We should note that the cultural tourism is a “consequence branch” whose evolution is permanently correlated with the development level and rate of the other economy branches.

REFERENCES

- Amin, A. and Thrift, N. (1994) *Globalization, Institutions and Regional Development in Europe*, Oxford: Oxford University Press
- Anderson, K.J. (1990) ‘Chinatown Re-oriented: A critical analysis of recent redevelopment schemes in a Melbourne and Sydney enclave’, *Australian Geographical Studies*, 28(1): 137–54.
- Cuccia, T., Cellini, R., (2007), “Is Cultural Heritage Really Important for Tourists? A Contingent Rating Study”, *Applied Economics*, 39, pp. 261-271.
- Kim, C. W. (2007), “Analysis of the Temple Stay. Korean Buddhism Cultural Organisation”.
- McKercher, B. and H. du Cros (2002), *Cultural Tourism: The Partnership between Tourism and Cultural Heritage Management*, The Haworth Hospitality Press, New York.
- Puczko L. and Ratz T. (2007), “Trailing Goethe, Humbert and Ulysses Tourism: Cultural Routes in Tourism”, *Cultural Tourism: Global and Local Perspectives*, Haworth Press, New York.
- Van den Berghe P. L. (1980) *Tourism as Ethnic Relations: A Case Study of Cuzco, Peru*. *Ethnic and Racial Studies* 3, pp. 375-392.
- Vargas, M. and Aguilar, L. (2004) *Tourism: Gender Makes the Difference*, Fact Sheet, 3rd World Conservation Congress of IUCN. IUCN.
- Viard J. (2000) *Court traité sur les vacances, les voyages et l’hospitalité des lieux*.
- Aube, Paris. Wagner U. (1977) *Out of Time and Place: Mass Tourism and Charter Trips*. *Ethnos* 42, pp. 38-52.
- Whittaker E. (1994) *Public Discourse on Sacredness: The Transfer of Ayers Rock to Aboriginal Ownership*. *American Ethnologist* (21), pp. 310-334.

TECHNOLOGICAL INNOVATION CAPABILITIES AMONG SMALL AND MEDIUM MANUFACTURING FIRMS IN MALAYSIA: TO WHAT EXTENT ENTREPRENEURIAL ORIENTATION PLAYS AN IMPORTANT ROLE?

***Nor Azila Mohd Noor,² Azli Muhammad³ AbdulQadir Ahmed Aljanabi**

^{1,3} *Othman Yeop Abdullah Graduate School of Business, University Utara Malaysia, Sintok, Malaysia*

² *Polytechnic Seberang Prai, Penang, Malaysia*

*Corresponding author: azila@uum.edu.my

ABSTRACT

It is notable that the dynamic Malaysian economy has become more competitive across a broad range of manufactured goods and has also managed to switch to higher value-added manufacturing products. The outward oriented economic strategies have somehow progressed well in establishing the manufacturing sector, namely the electronic and electrical sectors. Moreover, it is widely recognized that innovation is a key factor in sustaining Malaysia's competitiveness in the face of rapid globalization. However, studies concerning innovation capabilities in Malaysia are limited. While there have been few studies on innovation and internationalization of R&D activities in Malaysia, less attention has been paid to analyzing the issue as a system hence providing little evidence for any significant policy directions. Therefore, the purpose of this study is to shed further light on the factors influencing technological innovation capabilities among manufacturing firms in Malaysia. This study involves small and medium sized manufacturing firms in Northern region in Malaysia. In order to effectively generalize the research findings, 112 questionnaires were distributed to the respondents. The results show that technological innovation capabilities are positively influenced by entrepreneurial orientation of the firms. The result indicates that strategic orientation that is risk-taking, pro-activeness and innovativeness urges the firms to consider new ideas and take part in creative venture, tolerate risks and proactive. In making decisions that are related to technological innovation, enterprises are likely to consider whether or not they receive entrepreneurial opportunities. The outcome of this study is expected to be used by Malaysian government and agencies in developing the best strategies to enhance industrial SMEs within this region, in conjunction with initiatives aimed at increasing cooperation with foreign companies to increase their experiences and support their competencies to exploit externally generated knowledge.

Keyword: Technological innovation capabilities, Entrepreneurial orientation, Small and medium sized industry, Manufacturing.

INTRODUCTION

It is proven that since its independence, Malaysia's has achieved a remarkable economic achievements by any standard. Throughout the period, the Malaysian economy has changed from an economy that highly depends on exports of primary commodities (such as tin and rubber) to one that is driven primarily by the exports of manufacturing goods. Today, manufactured goods account for 31 per cent of the country's GDP and more than 70 per cent of the country's exports.

Since 1990s, a growing interest in the manufacturing sector has been emerged in Malaysia particularly in order to move the industry wheel and solve the problem of unemployment (Batal, Alrawy, & Ali, 2011). However, despite of the need, there is lack of clear plans to develop this sector and the most important characteristic of this sector is the lack of sufficient governmental and private investment that help to develop it. Amongst others, the reasons are contributed by (i) reduction in the scientific level of agencies and government institutions that manage industrial activities and (ii) manufacturing industry in Malaysia suffer from poor managerial practices and manpower turnover (Ali, 2013).

It can be argue that insufficient of specific resources might represents one of the main reasons for the low level of technological innovation among manufacturing firms in Malaysia. This probably due to the fact

that some of the firms has suffered from deficiency in the level of capabilities and resources (Bowen, 2012; Tas, 2012), particularly on the level of human capabilities (Klomp, 2011). Apart from that, firms may not achieve the desired innovation level probably because they are having lack of competency which limits them from the best use of such resources (Bakar & Ahmad, 2010). According to Malaysian Ministry of Science, Technology and Innovation, in comparison with neighboring countries, the manufacturing industry in Malaysia is suffering from lack of professionals human resources, legislations, technology, appropriate knowledge to the current industrial evolution, and even in forms of productions. Furthermore, it suffers from traditional and monotone measures of customer needs. This is reflected in the inability of local industrial products to vie with imported products due to the weaknesses in the technical and marketing evaluation processes, weak import and export legislation (Bakleh, 2007).

This research believes that one of the issues contributing to the present decline in innovation in manufacturing firms are related to scarcity of proactive manner, risk-taking trends, and innovativeness within these enterprises which is quite connected to entrepreneurial orientation (EO). Related literature have pointed out three incorporated dimensions of EO namely, risk taking, pro-activeness and innovativeness (Millert, 1983; Baker & Sinkula, 2009; Jones & Rowley, 2011; Wales et al., 2013). The majority of these studies have been conducted in large-sized firms within mature and stable economies and developed countries. Therefore it is important to extend the study on the effect of EO on technological innovation capabilities within SMEs manufacturing firms in developing economy like Malaysia.

LITERATURE REVIEW

According to Kamasak and Bulutlar)2010(, innovation is best understood as generation, adoption and implementation of new ideas, policies, programs, process, product/service to the organization adopting it. Meanwhile, Crossan and Apaydin)2010(defined it as the generation or adoption, assimilation and use of value-added new invention in the economic and social field that realizes the renewal and enlargement of products and development of novel production techniques, and the establishment of new systems of management. It is process as well as outcomes.

Entrepreneurial orientation)EO(is described as the firms' strategic orientation that encapsulates certain side of entrepreneurship of decision-making patterns, working manners and their managerial practices. In addition, it represents the firm's priority when it comes to the identification and exploitation of opportunities found in the market)Baker & Sinkula, 2009; Huang & Wang, 2011; Pérez-Luño et al., 2011(. Owing to the significance of entrepreneurship to the performance of firms)e.g. firm innovation()Hughes, Hughes, & Morgan, 2007; Huang & Wang, 2011(, EO could be an impersonation of a significant measure of the pathway through which a firm is structured and organized —one that improves the achievement advantage of a firm resources that based on knowledge by concentrating on the use of such resources for the discovery and exploitation of scopes. Thus, EO underlies the process followed by the managers that enable firms to stay advanced on their rivals as it facilitates firm action on the basis of initial signals from its environments)Lumpkin & Dess, 1996; Wiklund & Shepherd, 2003(.

Firms can survive in the business environment due to the demand for their products and possess certain resources to compete with others. Miller)1983(shows that simple firm' strategies affected by its owner personality and attitudes and indicate that those confident owners-managers of their abilities are most possible to be entrepreneurial. Based on this notion, Huang and Wang)2011(through their work characterized by promoting innovation levels in SMEs, have considered innovation as EO outcome. Empirical evidences showed that entrepreneurial orientation has a significant impact on the firm's ability to adapts to environmental changes through the provision of different types of innovations)Hong, Song, & Yoo, 2013; Li et al., 2008(. As indicated by the relevant literature, firm that owns an EO must be characterized with risk-taking, pro-activeness and innovativeness)Baker & Sinkula, 2009; Jones & Rowley, 2011; Miller, 1983; Wales et al., 2013(to be able to understand the requirements of both market and customers and satisfy these needs through new innovations)Baker & Sinkula, 2009; Boso, Cadogan, & Story, 2012b(. Along these lines, Atuahene-gima and Ko)2001(gave an accurate depiction for the relationship that link EO with innovation, they argued that the main reason implied in this relationship represented in one of the EO dimensions which is a high grade of innovativeness. Henard and Szymanski)2001(, and Baker and Sinkula)2007(have also reported that product innovation strongly related with innovativeness. Moreover, researches highlighted the role of other dimensions of EO, for instance, risk-taking can foster firm's ability to produce new products and process)Chen, 2012; Cheng et al., 2012(. Risk-taking nature promotes firms toward dedicate the necessary resources which help in obtaining new

innovations)Ko & Lu, 2010; Zhou & Tse, 2005(. Previous studies have also indicate positive influence of pro-activeness on innovation and value creation)Zellweger et al., 2011(. Hence, EO plays a significant role to promote technological innovation capabilities of the firm)Weerawardena & Coote, 2001(. This leads to the following hypothesis:

H1: The higher the entrepreneurial orientation)EO(of the firm, the higher the technological innovation capabilities)TC(the firm will acquire.

METHODOLOGY

This study was cross-sectional in nature where data were collected once to answer the study's research questions)Sekaran, 2010(. Data were collected through personal survey using questionnaire. The population of this study comprises of SMEs manufacturing firms in Malaysia. In this research, 250 questionnaires were distributed over the eleven manufacturing activities representing all manufacturing SMEs operating in the northern region of Malaysia, of which 128 questionnaires were returned. From this number 16 were incomplete and were excluded from further analysis. With 112 completed questionnaires, it brings the response rate of 45 percent.

Entrepreneurial orientation is conceptualized as a three dimensional construct namely product innovation capability, which refers to submitting of any novel product to satisfy customers' needs; process innovation capability which involves firm's wide efforts to create or improve a new manufacturing method; and bring about new developments in the process or system. This variable was measured using instrument adapted from Camisón & Villar-López, (2012) and Jiménez-Jimenez et al., (2008). On the other hand, entrepreneurial orientation is operationalized as the entrepreneurial model applies to firms that innovate boldly and regularly while taking considerable risks in their product-market strategies. The instrument with six items developed by Boso et al., (2012) was used to measure entrepreneurial orientation. Responses to the questionnaire items were elicited on five-point scales ranging from "5=strongly agree" to "1=strongly disagree". Item relating to a particular construct were summed to create overall composite scores for each respondents. Table 1 shows the means, standard deviations and reliability coefficient of each construct.

Table 1. Descriptive Statistics for Dimensions of Variables

Dimension (Variables)	Mean value	Standard Deviation	α (reliability coefficient)
Technological capabilities	3.71	.36	.72
Entrepreneurial orientation	3.50	.59	.83

ANALYSIS

Regarding the background information of the responding SMEs manufacturing firms, it was found that majority of the respondents (56%) involved in the machinery and equipments. With regards to the duration the firms have been operating in the industry, the majority of the firms (56%) have been operating for 10-20 years, these results show that the sample in the present study constitutes manufacturing firms that possess considerable experience to enable them to make new innovations. The size of the firms was determined through the number of employees they employed. For this purpose, the firms were divided into three groups. The majority of the firms (63%) have between 20-99 employees; followed by 28 percent with employees between 10 to 19 employees and the remaining nine percent have less than or equal to nine employees. Also, the results show that all the firms are owned by local owners.

Table 2 provides a summary of the correlation analysis results. The stated hypothesis regarding the influence of entrepreneurial orientation on technological innovation capabilities was tested using regression. Prior performing the actual hypothesis test, correlations between the constructs were derived. Table 2 shows the correlation structure of the data used in this study. As shown in table 2, positive correlation exists between entrepreneurial orientation and technological innovation capabilities ($r = .78$;

$\rho < .01$). The individual hypothesis was then tested using a regression prediction model (Hair et al., 1998) with technological innovation capabilities as the dependent variable. Results from the analysis are summarized in table 3. As shown in table 3, entrepreneurial orientation is positively related to technological innovation capabilities ($\beta = .67$; $p < .01$). Therefore, the hypothesis was supported.

Table2. Pearson Correlation

	Entrepreneurial orientation	Technological orientation
Entrepreneurial orientation	1.0	
Technological orientation	.78(**)	1.0

** Correlation is significant at 0.01 level (2 tailed)

Table 3. Regression Analysis

Independent variables	Coefficient (β)	B	SEB
<i>Dependent variable: Technological orientation capabilities</i>			
Entrepreneurial orientation	.67**	.31	.08

DISCUSSION

The result shows that the entrepreneurial orientation (EO) is positively related to technological innovation capabilities of the firms. The positive relationship between entrepreneurial orientation and technological innovation capabilities found in the present study is consistent with prior studies, such as Boso et al., (2012b); Huang & Wang, (2011); Jones & Rowley, (2011); Pérez-Luño et al., (2011); Zahra, (2008); Zhou & Tse, (2005); and Zortea-Johnston et al., (2011). Despite these evidences, Messersmith & Wales (2011) elucidate a non-significant relationship between entrepreneurial orientation and small firms' technological innovation capabilities. This study gives particular importance to the role of entrepreneurial orientation in fast responding to the opportunities of new products and process innovations, which emerge when some entrepreneurs have shrewdness into the value of some resources that others do not. Ren and Yu (2016) argue that the entrepreneurial orientation has a great impact on improve the company's renewal capability and organizational learning capability specially for new enterprises.

The positive relationship implies that in making decisions that are related to technological innovation, SME manufacturing firms are likely to consider whether or not they receive entrepreneurial opportunities. This indicates that the nature of entrepreneurial orientation and its dimensions drive the firms to take into account new ideas and involve in creative venture, tolerate risks and proactive activities. With respect to the Malaysian SMEs manufacturing firms, it can be concluded that entrepreneurial orientation of the firms is a sturdy tool for achieving technological innovation capabilities and this may be more relevant during the economic instability which rocking Malaysian since last year.

From the managerial perspective, the obtained results have important implications for practitioners and policy-makers. They provide beneficial and enlightening insights on the way entrepreneurial orientation can improve the technological innovation capabilities of manufacturing SMEs. First, the study's findings can enlighten the institutions working in the Malaysian manufacturing industry on the significance of technological innovation to support SME owners. The results also explain that technological innovation is one of the major survival characteristics of a company that is seeking to achieve a strategic position in the marketplace. Leveraging the findings may enable manufacturing SMEs in Malaysia to follow effective plans to improve their innovation level through authentic knowledge that can enhance product and process development.

CONCLUSION

The current competitive and challenging business environment has precipitated the investigation of the constructs of technological innovation capabilities in the fields of management and marketing. For most of the companies, knowledge about customers is the main focus where customers are deemed to be the primary partners to achieve firm success. In other words, it is pertinent for firms to respond to the needs of customers and satisfy them in order to thrive and develop. The improvement of SMEs' technological innovation capabilities has been the focus of decision-makers in developing nations, including Malaysia. Further, **entrepreneurial orientation** has been widely acknowledged as a good factor that influence technological innovation capabilities of industrial SMEs. Measuring the technological innovation capabilities levels could assist the organizations to achieve superior performance and launch products and processes.

The study's results evidence the significant role of entrepreneurial orientation on technological innovation capabilities. Enhancing this factor among manufacturing SMEs can help enhance their innovation level. To conclude, the manufacturing sector in Malaysia should directly focus on their technological innovation capabilities and ensure that their efforts and activities are aligned with the requirements of their customers for innovative products and processes.

REFERENCES

- Al-Hyari, K., Al-Weshah, G., & Alnsour, M. (2012). Barriers to internationalisation in SMEs: evidence from Jordan. *Marketing Intelligence & Planning*, 30(2), 188–211.
- Ar, I. M., & Baki, B. (2011). Antecedents and performance impacts of product versus process innovation: Empirical evidence from SMEs located in Turkish science and technology parks. *European Journal of Innovation Management*, 14(2), 172–206.
- Atuahene-gima, & Ko. (2001). An Empirical Investigation of the Effect of Market Orientation and Entrepreneurship Orientation Alignment on Product Innovation. *Organization Science*, 12(1), 54–74.
- Baker, W. E., & Sinkula, J. M. (2007). Does Market Orientation Facilitate Balanced Innovation Programs? An Organizational Learning Perspective. *Journal of Product Innovation Management*, 24(4), 316–334.
- Baker, W. E., & Sinkula, J. M. (2009). The complementary Effects of Market Orientation and Entrepreneurial Orientation on Profitability in Small Businesses. *Journal of Small Business Management*, 47(4), 443–464.
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*,

17(1), 99–120.

- Barney, J., Mike, W., & Ketchen, J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27(6), 625–641..
- Bigliardi, B., & Dormio, A. I. (2009). An empirical investigation of innovation determinants in food machinery enterprises. *European Journal of Innovation Management*, 12(2), 223–242.
- Blesa, A., & Ripolles, M. (2003). The Role of Market Orientation in the Relationship between Entrepreneurial Proactiveness and Performance. *Journal of Entrepreneurship*, 12(1), 1–19.
- Börjesson, S., Elmquist, M., & Hooge, S. (2014). The challenges of innovation capability building: Learning from longitudinal studies of innovation efforts at Renault and Volvo Cars. *Journal of Engineering and Technology Management*, 31, 120–140.
- Boso, N., Cadogan, J. W., & Story, V. M. (2012a). Complementary effect of entrepreneurial and market orientations on export new product success under differing levels of competitive intensity and financial capital. *International Business Review*, 21(4), 667–681.
- Boso, N., Cadogan, J. W., & Story, V. M. (2012b). Entrepreneurial orientation and market orientation as drivers of product innovation success: A study of exporters from a developing economy. *International Small Business Journal*, 31(1), 57–81.
- Caccia-Bava, M. D. C., Guimaraes, T., & Harrington, S. J. (2006). Hospital organization culture, capacity to innovate and success in technology adoption. *Journal of Health Organisation and Management*, 20(3), 194–217.
- Celuch, K., & Murphy, G. (2010). SME Internet use and strategic flexibility: the moderating effect of IT market orientation. *Journal of Marketing Management*, 26(1-2), 131–145.
- Chen, Y. (2012). Risk in integrated leapfrogging mode of technological innovation. *Kybernetes*, 41(10), 1423–1439.
- Cheng, C.-F., Chang, M.-L., & Li, C.-S. (2012). Configural paths to successful product innovation. *Journal of Business Research*, 4, 26–32.
- CIPE. (2007). *Kurdistan Business Agenda. Center for International Business Enterprises* (Vol. 28). Washington DC. doi:10.1093/her/cyt035
- Cohen, W., & Levinthal, D. (1990). Absorptive Capacity : A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, 35(1), 128–152.
- Costică, M. B. (2013). Harmonization process in defining small and medium-sized enterprises . Arguments for a quantitative definition versus a qualitative one. *Theoretical and Applied Economics*, 20(9), 103–114.
- Flatten, T., Greve, G., & Brettel, M. (2011). Absorptive Capacity and Firm Performance in SMEs: The Mediating Influence of Strategic Alliances. *European Management Review*, 8(3), 137–152.
- Fornell, C., & Larcker, F. (1981). Structural Equation Models With Unobservable Variables and Measurement Error : Algebra and Statistics. *Journal of Marketing Research*, 18(3), 382–389.
- Guo, T., & Shi, Z. (2012). Systematic Analysis on the Environment of Innovative Small and Medium Enterprises. *Physics Procedia*, 24, 1214–1220.
- Hair, Sarstedt, M., Ringle, M. M., & Mena, J. A. (2011). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414–433.
- Henard, D. H., & Szymanski, D. M. (2001). Why Some New Products Are More Successful Than Others. *Journal of Marketing Research*, 37(August), 362–75.
- Hodgkinson, I. R., Hughes, P., & Hughes, M. (2012). Absorptive capacity and market orientation in public service provision. *Journal of Strategic Marketing*, 20(3), 211–229.
- Hong, J., Song, T. H., & Yoo, S. (2013). Paths to Success: How Do Market Orientation and Entrepreneurship Orientation Produce New Product Success? *Journal of Product Innovation Management*, 30(1), 44–55.
- Huang, & Wang, Y.-L. (2011). Entrepreneurial orientation, learning orientation, and innovation in small and medium enterprises. *Procedia - Social and Behavioral Sciences*, 24, 563–570.
- Hughes, M., Hughes, P., & Morgan, R. E. (2007). Exploitative Learning and Entrepreneurial Orientation Alignment in Emerging Young Firms: Implications for Market and Response Performance. *British Journal of Management*, 18(4), 359–375.
- Iii, P. E. B., Damanpour, F., & Santoro, M. D. (2009). The Application of External Knowledge : Organizational Conditions for Exploration and Exploitation. *Journal of Management Studies*, 46(May), 481–509.
- Jones, R., & Rowley, J. (2011). Entrepreneurial marketing in small businesses: A conceptual exploration. *International Small Business Journal*, 29(1), 25–36.
- Jung-Erceg, P., Pandza, K., Armbruster, H., & Dreher, C. (2007). Absorptive capacity in European manufacturing: a Delphi study. *Industrial Management & Data Systems*, 107(1), 37–51.

- Ko, H.-T., & Lu, H.-P. (2010). Measuring innovation competencies for integrated services in the communications industry. *Journal of Service Management*, 21(2), 162–190.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 38, 607–610.
- Laforet, S. (2011). A framework of organisational innovation and outcomes in SMEs. *International Journal of Entrepreneurial Behaviour & Research*, 17(4), 380–408.
- Laukkanen, P. (2012). Constituents and outcomes of absorptive capacity – appropriability regime changing the game. *Management Decision*, 50(7), 1178–1199.
- Li, Y., Zhao, Y., Tan, J., & Liu, Y. (2008). Moderating Effects of Entrepreneurial Orientation on Market Orientation-Performance Linkage: Evidence from Chinese Small Firms. *Journal of Small Business Management*, 46(1), 113–133.
- Liao, Fei, W.-C., & Chen, C.-C. (2007). Knowledge sharing, absorptive capacity, and innovation capability: an empirical study of Taiwan's knowledge-intensive industries. *Journal of Information Science*, 33(3), 340–359.
- Liao, Wu, C. -c., Hu, D. -c., & Tsui, K. -a. (2010). Relationships between knowledge acquisition, absorptive capacity and innovation capability: an empirical study on Taiwan's financial and manufacturing industries. *Journal of Information Science*, 36(1), 19–35.
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance. *The Academy of Management Review*, 21(1), 135.
- Miller, D. (1983). The Correlation of Entrepreneurship in three Types of Firms. *Management Science*, 29(7), 770–791.
- Muscio, A. (2007). The Impact of absorptive Capacity on SMEs' Collaboration. *Economics of Innovation and New Technology*, 16(8), 653–668.
- Otero-Neira, Arias, M. J. F., & Lindman, M. T. (2013). Market Orientation and Entrepreneurial Proclivity: Antecedents of Innovation. *Global Business Review*, 14(3), 385–395.
- Sciascia, S., D'Oria, L., Bruni, M., & Larrañeta, B. (2014). Entrepreneurial Orientation in low- and medium-tech industries: The need for Absorptive Capacity to increase performance. *European Management Journal*, 32(5), 761–769.
- Srivastava, M. K., & Gnyawali, D. R. (2011). When Do Relational Resources Matter? Leveraging Portfolio Technological Resources for Breakthrough Innovation. *Academy of Management Journal*, 54(4), 797–810.
- Tsai, W. (2001). Knowledge Transfer in Intraorganizational Networks : Effects of Network Position and Absorptive Capacity on Business Unit Innovation and Performance. *Academy of Management Journal*, 44(5), 996–1004.
- Tseng, C.-Y., Pai, D. C., & Hung, C.-H. (2011). Knowledge absorptive capacity and innovation performance in KIBS. *Journal of Knowledge Management*, 15(6), 971–983.
- USAID. (2011). USAID Participates at the 4th Iraq Agro-Food Expo in Erbil. Retrieved from <http://www.usaid.gov/news-information/press-releases/usaid-participates-4th-iraq-agro-food-expo-erbil>
- Wales, W. J., Parida, V., & Patel, P. C. (2013). Research Notes and Commentaries Too Much of a Good Thing? Absorptive Capacity , Firm performance , and the Moderating Role of Entrepreneurial Orientation. *Strategic Management Journal*, 34(5), 622–633.
- Wang, & Han, Y. (2011). Linking properties of knowledge with innovation performance: the moderate role of absorptive capacity. *Journal of Knowledge Management*, 15(5), 802–819.
- Wang, C. L., & Chung, H. F. L. (2013). The moderating role of managerial ties in market orientation and innovation: An Asian perspective. *Journal of Business Research*, 66(12), 2431–2437.
- Weerawardena, J., & Coote, L. (2001). An Empirical Investigation into Entrepreneurship and Organizational Innovation-based Competitive Strategy. *Journal of Research in Marketing and Entrepreneurship*, 3(1), 51–70.
- Weigelt, C., & Sarkar, M. B. (2012). Performance Implication of Outsourcing for Technological Innovation: Managing the Efficiency and Adaptability trade-Off. *Strategic Management Journal*, 216(November 2009), 189–216.
- Westerberg, M., & Frishammar, J. (2012). Innovation Performance. *Journal of Small Business Management*, 50(2), 283–309.
- Xia, Z., Yu, H., Xia, Y., & Li, W. (2011). Effects of Human Capital on Technological Innovation: A Literature Review. In *2011 International Conference on Management and Service Science*, 1-3.
- Yang, J. (2012). Innovation capability and corporate growth: An empirical investigation in China. *Journal of Engineering and Technology Management*, 29(1), 34–46.
- Zellweger, T. M., Nason, R. S., & Nordqvist, M. (2011). From Longevity of Firms to Transgenerational Entrepreneurship of Families: Introducing Family Entrepreneurial

Orientation. *Family Business Review*, 25(2), 136–155.

Zhang, Z., Wu, H., Zhang, X., & Zhou, G. (2009). A study of the relationship between R&D capability and innovation performance based on high-tech firms in optics valley of China. In *2009 16th International Conference on Industrial Engineering and Engineering Management*, 1922–1926.

Zhou, K. Z., & Tse, D. K. (2005). The Effects of Strategic Orientations on Technology- and

THE CHALLENGES FOR AACSB ACCREDITATION AT CEIPA BUSINESS SCHOOL: ADAPTING NEW STANDARDS FOR A CONTINUOUS IMPROVEMENT PROCESS

Ramon Corona

National University, La Jolla, California 92037, USA

Diego Mauricio Mazo-Cuervo,

CEIPA Business School, Sabaneta, Colombia

ABSTRACT

CEIPA business school in Medellin, Colombia, is a 40-year-old institution that developed its education model based on "problem nucleus," allowing students to start their learning process by analyzing a real problem or issue in a company, then developing the appropriate competencies and skills to solve it. The model encompasses not only classroom and online acquisition of knowledge and skills, but also hands-on experiences, and outdoor training for polishing of personal skills and managerial abilities.

This year, the institution has decided to initiate the AACSB accreditation process to enhance its reputation and position in the highly competitive higher education landscape in Colombia, as well as to become a recognized business school in the global marketplace.

This process will take several years and implies many structural and cultural changes toward a more evidence-based process at all levels, thus generating many interesting opportunities for improvements.

This paper analyzes the process of adaptation of the AACSB standards for CEIPA, and the challenges for change at all levels, including the student admission process, teaching methodology and the online component, student services, and the installation of assurance of learning and assessment processes in all programs, to name a few.

Since the AACSB accreditation of business schools in Latin American countries is still limited, this paper may also help other institutions to embrace this challenge to become a world-class business school.

Keywords: accreditation, cultural changes, AOL, assessment, education, Latin America, Business School.

INTRODUCTION

CEIPA Business School was founded in 1972 in Medellin, Colombia, with the purpose of providing integral education to students, by means of programs focused on the field of administration. During the first 20 years of operation, it offered technological programs¹ of about three and a half years: the majority of students had a job in order to pay for their tuition.

In 1992, after a very long and difficult process, the National Ministry of Education authorized CEIPA to turn from being a Technological Institution into a University. This change allowed CEIPA to offer five-year professional undergraduate programs and post graduate education, as well as consulting and university extension.

This authorization means a great strategic challenge for the institution since about 90% of higher education institutions in Colombia have a department of administrative sciences, and this represents about 30% of the students registered in higher education. In other words, this is the most competitive area with the highest educational offer in the country.

¹ In Colombia, higher education proposes three levels: technical professionals, technologists, and highly qualified professionals. Besides the degree of professional responsibility, it is understood that the length of their education differentiates the programs. Professional majors take longer.

By using an approach towards the instruction of students for the corporate world within the country and the region, and since as most of them work in order to pay for their studies, it was then necessary to ponder if the classical model of university formation was appropriate for the education of the students at CEIPA.

Several consultations were conducted regarding the time it took for students to finish their studies, their expectations, and their employers'. These studies showed that a high number of them (150, at the time), graduated within the five years in the institution plan; that there were subjects that both employers and students did not find any application for in their professional lives; and other perceptions that gave basis to work on a new proposal.

The need to differentiate ourselves from others, and to offer an instruction of the highest quality for our students, made us formulate the following hypothesis: Is it possible to educate a professional in business administration in less than 5 years? Is there a pedagogical model that allows the optimization of resources and teachers? How can we increase academic quality? These questions led us to undertake a national and international search for a new educational model.

By mid-1995, the proposal to adopt an educational model based on problem-solving and theme-based nuclei was consolidated. This model was implemented using a different timeline; that is, instead of studying two semesters in a year, each of 16 weeks, we moved into creating five periods per year, each of 8 weeks. Therefore, each nucleus had to entirely be redesigned, and the programs changed from 60 subjects to a maximum 24 nuclei.

By adopting the model, the programs could be structured into four-year programs, thus reducing the number of required teachers while allowing students to focus on just one nucleus per period and the making of applicability tasks connected to the industry.

CEIPA's educational model

Problem-Based and Theme-based Nuclei of Studies have been an extensively discussed proposal with application experiences (López N. and Puentes A. V. 2011; Silva, L. y Domínguez, F. 2017), both positive and to be improved, of which we will share some fundamental aspects originating from different authors. Some of these compilations have been retrieved from the work of Edmee Córdoba, Master in Education from Javeriana University who states:

"It is a group of similar knowledge which allows the definition of lines of research concerning the object of transformation; methodological strategies, which guarantee the theory-practice relation and the communitarian participation activities." (ICFES, 1989).

"Convergence of knowledge: specific, popular, incorporated and pedagogical for the comprehension, integration, and application of a theoretical-practical solution to problems." (Munevar, R, and Aguirre, R, 1980).

"A basic work nucleus or 'work around a basic nucleus', exclusively involves a group of knowledge from different fields and incorporates them, merging them into a work unit. The interrelated disciplines maintain their identities, are grouped and thought in regards to a particular subject which serves as its nucleus." (Garcia, 1988).

"A thematic nucleus represents a theoretical-practical group of learning experiences where conceptualization, reflection, and application of knowledge takes place in relation to a specific topic or to a particular problem-based situation. (Department of Pedagogy, Faculty of Education, University of Caldas, 1989; López N. and Puentes A. V. 2011; Silva, L. y Domínguez, F. 2017).

"In the words of Madgenzo (1986) "An Integrated Curriculum in which all disciplines or contents are related or integrated, theory-practice. This means that theory cannot be worked separately from practice. Much less does it mean to assign a teacher for theory and another one for practice."

Problem-based Nuclei in the CEIPA Curriculum

We can define the problem-based nucleus in the CEIPA curriculum as the basic, dynamic unit for analysis, planning, organization, integration, and continuous and improved construction of knowledge, specifically in respect to the administrative and managerial fields, and related to solving problems specific to organizations.

In the model's unique nature, each nucleus is designed and focused towards students and professionals' effective confrontation and intervention on the restrictions organizations face, as well as the use of their skills; centered on the knowledge and development of administrative and corporate theories and practices.

The articulated intent of the nucleus feeds off students and teachers' experiences, and administrative knowledge. It is structured so that, in practice, the executive's intervention within the organization, allows it to optimize its relationship with its settings (economic, social, political, legal, environmental), through the aligning of its strategies and internal processes with its systems, structures, culture and different public interests in order to fulfill its objectives.

It is, therefore, important to acknowledge that, as systems, both the corporate life as well as the educational process of executives and managers, are related to the development of specific competencies that empower them to contribute to the solving of problems (human, social, economic, technical, technological, etc.), which are ethically acceptable, socially valid and effective within the scope of the corporate world.

On the basis of the aforementioned, the problem-solving perspective in which the nucleus is based, favors a systemic and a systematic vision of the organization and its setting, and, in this way, students develop a peripheral inside-outside view of their organization, in order to understand and intervene it at different times and scenarios.

The above is then achieved through the work in and outside the classes, and on several instances (disciplines, knowledge, methodology, tools, practice). During the nucleus practice stage, this is achieved through different activities, readings, case studies, visits, online search, and basic research elements that go from one nucleus to the next. It is also obtained by means of the different projects that students deliver; through, the socialization, expansion, and discussion of experiences and from the expert collaboration of the teachers and, at times, from the occasional invitees of the corporate sector (Cardona, 2011).

The corporate practicum, which have as much of art as they have of discipline, and the knowledge itself, integrated to corporate theory (which effectively educates executives and managers, at least from a conceptual point of view), has inter, trans and multidisciplinary contributions due to the complexity of the problems that organizations face, and the need for integral contributions in order to solve them.

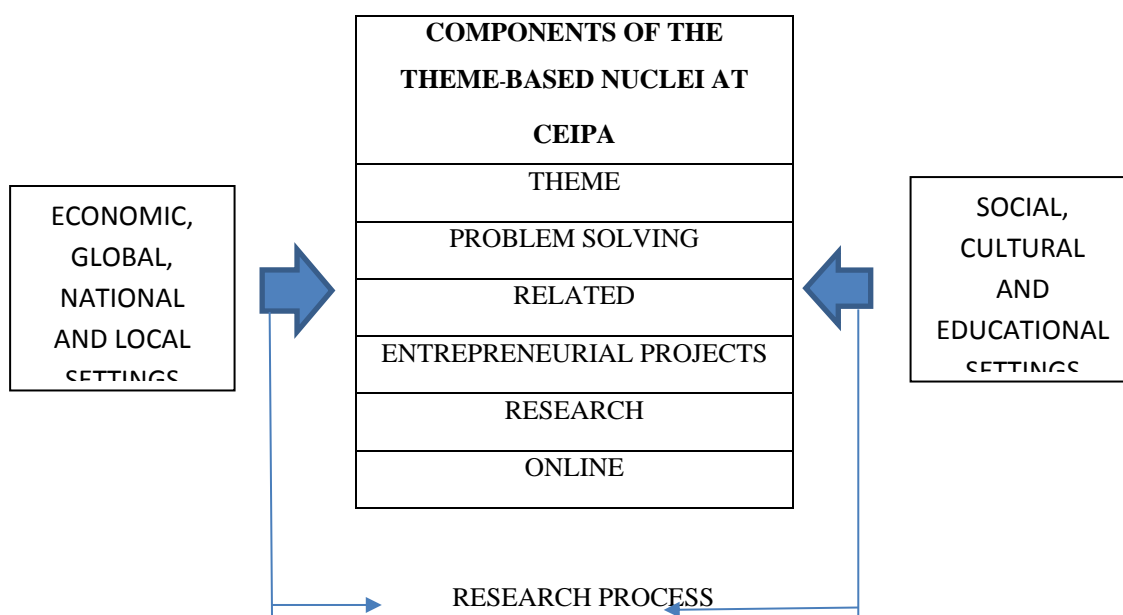


Figure 1. The CEIPA educational model showing the process for student learning and different elements involved in the process.

Given this unique background at CEIPA, this paper focuses on the process of the alignment of the AACSB accreditation standards to this educational approach, and the correlated activities and changes needed to take the university to the next level. In the Literature review section, this article first analyzes some of the existing known challenges to AACSB accreditation in recent years with similar universities in Europe and other countries, followed by a list of the various areas involved in the accreditation process, including the changes and the implementation of new elements such as Curriculum Maps, Assessment plans and signature assignments. On the conclusion section, the authors highlight some of the preliminary benefits of the process, as well as the potential for discoveries and improvements in the next few years for CEIPA.

LITERATURE REVIEW

AACSB International is the leading accrediting organization for business schools (Bunker, Cagle and Harris, 2014) and has over 100 years of history as a prestigious institution that most business schools seek to be connected to achieve their accreditation, and participate as members. According to AACSB's website, its accreditation represents the highest standard of achievement for business schools worldwide, with less than 5% of the world's 13,000 business schools accredited (AACSB 2017). It is the longest serving global association dedicated to advancing management education worldwide, with 786 business schools accredited in 53 different countries, and it has 1,500 members from 90 countries around the world.

AACSB is not the only determinant of quality business education for business schools, but given the proliferation of business programs worldwide and of MOOCs (Massive Open Online Courses), it has become indispensable to have a framework of reference for quality by following the operational and academic standards followed by the most prestigious and successful business schools in the 21st century. After several modifications and iterations throughout the years, AACSB provides a set of revised 15 standards for quality business education with the overarching pillars of engagement, innovation, and impact, and overseeing all areas of the business school including a) mission and vision, management and innovation, b) participants (students, faculty and professional staff), c) Learning and teaching, and d) Academic and professional engagement. In other words, it covers all relevant areas of a business school that impact what the student achieves in obtaining a degree.

Compliance with the AACSB standards does not guarantee a quality business education, but given the brand reputation it certainly increases visibility for the institution, global recognition, and attracts better students, increased funding as well as potential donors and partnerships. It is also used to assess the school's mission, vision, faculty teaching and scholarship, interaction with students, corporate partnerships, and impact to the business community. Possibly the most significant change involves developing an appropriate mission and its connection to faculty research consistent with that mission. Faculty often finds this very challenging in assessing their performance.

To embark in any accreditation process implies changes at many levels of the organization as well as associated costs, and thus institutions should be careful in considering this process to make sure it can produce the expected benefits, both tangible (like attracting more and better students) and intangible (reputation and positioning), to justify the additional investment.

There is also the gold standard for a business school to obtain the "triple accreditation", from not only AACSB, but also EQUIS and AMBA.

One of the examples in Latin America for the triple accreditation is IESA University in Venezuela, which thanks to the accreditation process they claimed to have obtained many benefits, including raising standards to a global scale, reviewing mission and vision, assessing strategy, systems and processes from different angles (Jaén, 2013). Furthermore, Jaén (2013) states: "Accreditation encourages and helps develop a school's own standards for managing faculty in accordance with its mission, vision, and strategy, so as to serve a given market". The process also promotes internationalization and strengthens a school's brand recognition, giving stockholders a guarantee for quality education.

However, some questions need to be addressed before engaging in this process, including whether or not accreditation fits the school's strategy, why does a school want to get accredited, and what for, how does accreditation will reinforce our strengths and diminish our weaknesses, to name a few. It is also recommended to hire an experienced mentor or consultant, to help with the process with an outside perspective (Jaén, 2013).

Business schools are one of the most success stories in higher education in the last 50 years, both from an academic (faculty, research, qualifications) and a business (customers, revenue, profitability) perspective (Osbaldestone, 2015). Given the incremental competition between business schools world-wide, it is hardly surprising that some leading schools have turned to accreditation to demonstrate their worth, and provide quality assurance to their board of trustees.

On the other hand, critics emphasize that rigid accreditation following specific rules discourages experimentation and innovation. Moreover, there are different types of university approaches for example teaching, research, entrepreneurship, that find adherence to standards very limiting, and prefer to be more open to new trends in the market, especially now with the TEL (Technology Enhance Learning), the online formats and platforms, as well as recent learning models like Precision and Adaptive Learning as well as Competency-based education. These new methodologies have been growing significantly in the last ten years and present a challenge to all accreditation agencies.

To make matters more defiant, some business colleges have labored for 10 or more years to achieve AACSB accreditation (Al-Khalifa, 2016). Therefore, it is a long process that requires many changes in all areas, sizable investments, and a profound cultural transformation.

Assessment of student learning is one of the critical components of the AACSB accreditation process, in addition to the changes in the internal operations to comply with the standards. They include revising the mission statement that drives everything else in the process, admission process, student mentoring, community engagement, as well as faculty qualifications and relevant scholarship. Historically, the evidence of student learning was performed via direct assessment (exams, case analysis, presentations, papers, etc.), but the 2013 AACSB standards also allow schools more flexibility by incorporating indirect assessments using opinions of students, alumni and employers in surveys, focus groups and exit interviews (Al-Khalifa, 2016). The new standards also include a new classification of faculty research based on relevancy and engagement: Scholarly Academics (SA), Practice Academics (PA), Scholarly Practitioners (SP), and Instructional Practitioners (IP) (AACSB, 2017). This brings a whole new approach to make business schools more impactful to their students and business community.

The accreditation process consisting in developing and implementing outcomes assessment, or assurance of learning (AoL) to meet AACSB standards takes at least three to four years to develop learning goals and objectives and to create the metrics and rubrics needed to measure student's progress towards the goals and to address deficiencies (closing the loop). Moreover, "The school uses well-documented, systematic processes for determining and revising degree programs learning goals; designing, delivering, and improving degree

program curricula to achieve learning goals; and demonstrating that degree programs learning goals have been met" (AACSB, 2013, p.5).

Marques and Garret (2012) presented an evaluation of the ongoing debate about the pros/cons of the AACSB AoL procedures to the university's constituents including students, faculty and administrators, given the possible transformation changes in the implementation, to comply with the 2013 standards. On the positive side, this created an increased faculty cooperation as well as transparency and consistency. However, there are some philosophical concerns about the reliance and emphasis on quantitative methods of assessment as a standardized approach for all institutions.

The AACSB Accreditation for CEIPA

While AACSB is the most sought after accreditation for business schools in Latin America, little has been written about the challenges and efforts required to achieve this accolade, especially in the context of the region and in particular in Colombia. There are a limited number of universities accredited by AACSB in South America, including two in Brazil, one in Argentina, three in Peru, one in Venezuela, three in Chile, one in Costa Rica, three in Mexico, and two in Colombia (AACSB, 2017); this is mostly due to the efforts and resources required both in terms of faculty, processes and financial.

As a result, in late 2015 the administrators at CEIPA decided to embrace the challenge of pursuing the AACSB accreditation process, given the emerging opportunities from the new 2013 standards that expand alternatives for non-traditional, teaching-oriented, and non research-oriented universities. As previously noted in the introduction, CEIPA is a Business School with a problem-based educational approach and modular courses that has been proven successful for the last ten years in their specific context, and the format has been refined and successfully implemented. Therefore, the first challenge was to try to adapt and incorporate the AACSB standards to the existing model without changing its essence. Other challenges include the prevalent cultural approach to comply with norms and standards (as it is current practice for governmental accreditation in many Latin American countries). In that sense, the new 2013 AACSB standards also bring a fresh look by connecting all institutional activities to its mission, vision and values.

This paper intends to describe the initial efforts in disseminating the information about the AACSB standards, as well some of the first steps in implementing the AoL and Assessment process for all programs at CEIPA.

Dissemination process

In late 2015, CEIPA organized a series of workshops about the AACSB accreditation to various groups including full-time faculty, part-time faculty, and all other departments of the institution in Medellin (Communications and TV, Planning and Quality Control, Business School staff and administrators, Finance Laboratory, Community Development, Human Resources, Language School, Outreach and Business Development, Online Development, Finance Department, IT, Library, Research Department, Entrepreneurial Department, General Services), as well as in the campus in the city of Barranquilla.

The purpose of these sessions was to a) introduce the AACSB accreditation, b) to highlight the potential benefits for CEIPA, and c) to discuss possible implications to each department, both in the short and long term. The culture of mission-driven activities was especially emphasized and the continuation of the existing educational approach that has been successful for CEIPA for a long time. Many of the implications were addressed and clarified, to make sure all participants felt comfortable with the future changes.

CEIPA's decision to pursue AACSB accreditation was confirmed by its Rector in a public video communication to the university shareholders in December of 2015, emphasizing that the development and

implementation may take a few years, as well as accentuating the potential benefits and strategic positioning for CEIPA in the region as a result of these efforts. Constant visit by consultants and periodic follow-up in 2016 and 2017, resulting in a series of initial actions described in the following section.

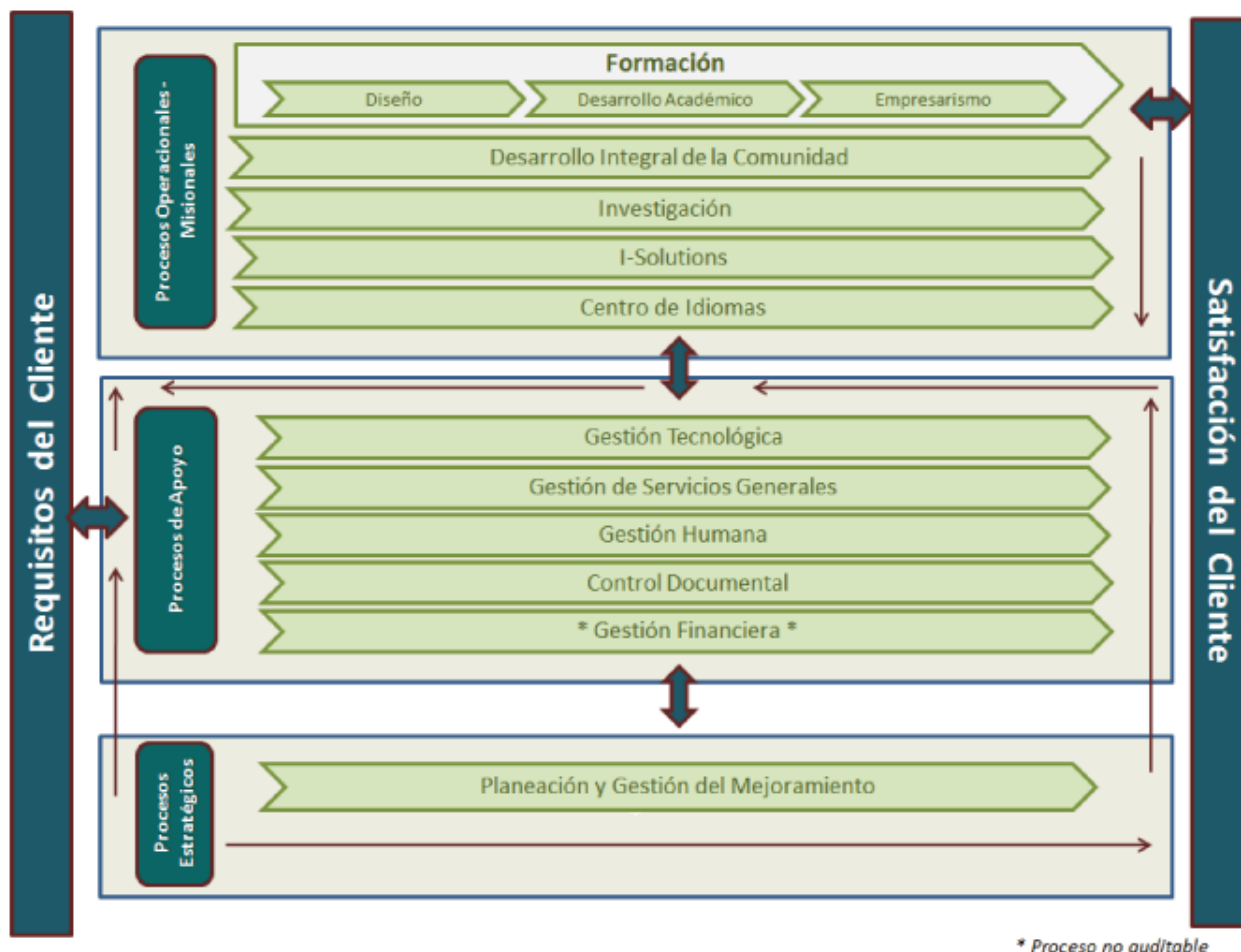


Fig 2. Matrix showing the various process and areas involved in CEIPA administration, starting with the mission and vision, formation, supporting activities and Quality improvement and customer satisfaction.

Implementation and actions

1. Mission and Vision. CEIPA's mission and vision was reviewed and analyzed to make sure it continues to be relevant for the students and the community they serve. Their original "driving principle" (principio rector) states "CEIPA Business School is a leading enterprise that manages business knowledge in online and face-to-face environments; is committed to the development of people and organizations, to foster the entrepreneurial spirit and integral formation". (CEIPA 2017). Its 'bridge' values include: Integrality, learn how to be; Respect, learn to live together; Flexibility, learn to learn; Responsibility, learn to do; "Fractalidad", learn how to meta-compete, or develop a wide variety of competencies and abilities, as professionals and human beings; and Innovation, learn to be entrepreneur and develop new businesses.
2. Review and development of Program Learning Outcomes (PLOs). Each program director developed a revised list of PLOs, linked to CEIPA's mission and ILOs. This process generated some questions about

what the students should learn in each program and the connection to the ILOs. Adjustments were made accordingly.

3. Review of Institutional Outcomes. The existing institutional goals and CEIPA's "raison d'être" were reviewed and formally established as Institutional Outcomes: to Meta-compete, Problem Resolution, Leadership, Critical Thinking, and Social Responsibility. These will become integral part of all programs. This process helped disseminate and reinforce CEIPA's values and outcomes to experienced and new program directors, as well as adjuncts.
4. Curriculum maps for all undergraduate and graduate programs. Program directors also developed a curriculum map for each program, stating for each module/course if it was Introduction, Developed, or Master of each PLO. Curriculum maps show a clear connection of the entire program with the expected outcomes. This was probably the most beneficial action since it forced the program directors to revisit each of the modules to make sure they have a logical connection with the PLOs. Several modules had to change and others could be eliminated.
5. Student's end of course evaluation. The evaluation was reviewed to make sure it had the information needed, and implemented at the proper time and conditions for the students. It also should include the expected parameters to assess the class environment, as well as find future enhancements and feedback for the instructor.
6. Faculty qualifications. This is probably the most challenging standards to meet, given the existing group of full time and part time faculty at CEIPA, and the notorious scarcity of professors with a Ph.D. or terminal degree in the country. This is a big problem for all Colombian universities, and for CEIPA it means both an analysis of each of the professors and the specific actions to elevate the academic level, as well as the hiring of new faculty with the appropriate qualifications to meet AACSB standards, as described before in this paper.
7. Outdoor training. CEIPA currently has a great assignment/activity at the end of the core requirements for graduate programs, consisting on spending a weekend in a hotel outside the city (in the mountains) where students participate in numerous activities, games, and social interactions, to test their abilities, including leadership, team building, ability to negotiate, decision making, etc. It is also a great way to get students more involved with CEIPA staff and administrators, and have a fun weekend.

CONCLUSIONS AND RECOMMENDATIONS

These activities and efforts are only the beginning of a long series of activities and changes for CEIPA to become eligible for AACSB accreditation, but the most important thing is that it is an on-going process that is starting to change the culture at CEIPA in all areas, and here are some examples: a) all fulltime and part time faculty participate in sessions and workshops about AACSB accreditation, but most importantly by not only changing and adapting existing programs to comply with the AoL, but also by incorporating AACSB criteria in the development of new programs. One example is the new Graduate program in Financial Markets, as well as the future MBA program, currently under approval by the Ministry of Education, where they presented the justification and rationale of the program based on PLOs and curriculum maps, generating very positive results from the government accreditors. b) Supporting departments are looking for ways to modify or adapt what they currently do in supporting students, to adhere to AACSB. For instance, in the admissions area they are adapting the initial self-development assessment for students (to determine competencies), to develop a follow-up test later and measure changes and improvements in student's abilities. This assessment includes effective communication, persuasion, social intelligence, emotional performance, flexibility, self-confidence, openness to new experiences, strategic decision-making, innovation and creativity, management, persistency, planning, and teamwork.

The most important outcome of this initial process has been the cultural change and adaptation in embracing the AACSB standards and criteria for faculty and administrators, and the legitimate aspiration to become one of the best business schools in the world in Latin America.

This paper describes the initial stages of the AACSB accreditation process and its benefits to this date, however additional research will be performed in the next few years to describe and discover new improvements and implications at CEIPA Business School.

REFERENCES

AACSB (2017). Retrieved from www.aacsb.edu on March 18, 2017.

Al-Khalifa, (2016). Outcomes Assessment and Quality Enhancement Through AACSB Business Accreditation: The Case of the University of Bahrain. *International Journal of Higher Education*, Vol. 5, No. 2, 2016.

Brunner, J, y otros. (2005). Observatorio del Empleo Graduados de la Educación Superior chilena. Retrieved from <http://www.oei.es/pdf2/Hipertexto-Sociedad-Conocimiento.pdf> on February 16, 2017

Bunker, R, Cagle C., and Harris D. (2014). Comparison of AACSB Accounting accredited and AACSB Business accredited institutions using the CPA examination as a post-curriculum assessment. *Journal of Accounting and Finance*, vol. 14(6).

Cardona, G. (2011). La Formación por competencias en la educación superior. La empresa y los programas del área económico-administrativa. Medellín: Centro Editorial Esumer. Retrieved from https://www.researchgate.net/publication/312529487_LA_FORMACION_POR_COMPETENCIAS_EN_LA_EDUCACION_SUPERIOR_La_empresa_y_los_programas_del_area_economicoadministrativa on december 12, 2017.

CEIPA (2017). Retrieved from <http://www.ceipa.edu.co/ceipa/institucional/plataforma-estrategica/#principios-valores>, on March 24, 2017.

Hernandez, S. (2008). El modelo constructivista con las nuevas tecnologías: aplicado en el proceso de aprendizaje. *Revista de Universidad y Sociedad del Conocimiento*. Vol. 5; #2; 2008. España: UOC.

Jaen, H. 2013. Accreditation: how to get it right. *EMFD Global Focus*, volume 07, issue 03, 2013.

López, N., Puentes, A.V. (2011) Modernization at Universidad Surcolombiana: Integration and Interdisciplinarity. In *Revista Entornos*, #24, 2011, pags. 103-122. Retrieved from <https://dialnet.unirioja.es/descarga/articulo/3798817.pdf> on March 02 de 2017.

Marquez, J & Garret N. (2012). Implementing Mission-driven Assurance of Learning: Improving Performance through Constructive Collaboration. *Journal of Education Business*, 87(4), 214-222.

Ministerio de Educación Nacional. (2013). Observatorio Laboral para la Educación. Documento Técnico. Documento en pdf. Retrieved from: http://www.graduadoscolombia.edu.co/html/1732/articles-334303_documento_tecnico_2013.pdf On March 15, 2017

Observatorio Laboral de la Educación. (2014) Encuesta de seguimiento. Instituciones de Educación Superior. Retrieved from: <http://www.graduadoscolombia.edu.co/html/1732/w3-article-346742.htm> On March 10, 2017

Osbaldestone M. (2015). The Challenges Facing Business School Accreditation. EFMD Global Focus Making Brand Asia, The International Tool Kit, 2015.

Silva, L. y Domínguez, F. Currículo-expert. Diseño de un Sistema basado en el conocimiento para currículo. Retrieved from http://www.colombiaaprende.edu.co/html/mediateca/1607/articles-74621_archivo.pdf on February 13, 2017.

THE LEVEL OF DEVELOPMENT IN THE MUSLIM WORLD: A FINANCIAL INQUIRY

Ihsan Isik, Ph.D.

*Professor of International Banking and Finance, Department of Accounting and Finance,
Rowan University, Glassboro, New Jersey, USA,
E-Mail: isik@rowan.edu*

ABSTRACT

Utilizing the most recent macro and micro-economic data available and calculating the modern measures of financial sector development, this extensive inquiry purports to determine the current state of finance, both in terms of depth (size) and breadth (diffusion) dimensions, at the 57 OIC countries vis-à-vis their income and regional counterparts in the world. After controlling for country size and density factors, it also tries to investigate the association between financial development and other country traits. It is astonishing to see that three out of four adults in the Islamic world are excluded from the financial system. Furthermore, the size of the financial industry in a typical Muslim country is almost fifty percent smaller than the typical country in the world. Such level of financial exclusion and financial underdevelopment is an incredible waste of valuable development resources.

Keyword Index Terms—OIC, Islamic finance, financial development, financial access

I. INTRODUCTION

FINANCE has been shown to *matter* for countries' economic development. The empirical and theoretical evidence that finance causes growth is so robust that it is available at all levels (country, sector, firms, and households) and supported by various econometric techniques. Furthermore, based on extensive cross-country databases, researchers have found a strong and causal relationship between indicators of financial sector development and GDP per capita growth, productivity growth, poverty, firm growth, and entry rates (Beck and Levine, 2005). Finance is important for several reasons. It promotes growth through raising and pooling funds, thereby allowing more and more risky investments to be undertaken, by allocating resources to their best uses, by monitoring usage of funds, and by providing instruments for risk management. More importantly, finance helps with improving income distribution and poverty reduction (Beck et al., 2004). Clearly, financial development is not only *pro-growth* but also *pro-poor*. More abundant private credit creates a rising tide that lifts all boats but gives a bigger lift to the poorest ones, according to Asli Demirguc-Kunt, a research manager in the World Bank. Hitherto, the empirical literature behind the evidence that finance causes economic growth has used financial sector *depth*, typically measured as the ratio of financial assets (e.g., private credit or liquid liabilities or total deposits) to GDP as the "independent variable". The underlying assumption was that financial depth is a good surrogate for financial development. However, de la Torre et al. (2006) rightly argue that the intricate web of institutional and market interactions at the heart of financial development can hardly be reduced to a single dimension. Financial development, with all of its dimensions, not just financial depth, lubricates and boosts the process of growth. These dimensions include *stability*, *depth*, and *breadth* (access to finance). Of these dimensions, access to finance is a new discovery that has attracted wide attention from the

This paragraph of the first footnote will contain the date on which you submitted your paper for review. It will also contain support information, including sponsor and financial support acknowledgment. For example, "This work was supported in part by the U.S. Department of Commerce under Grant BS123456".

The next few paragraphs should contain the authors' current affiliations, including current address and e-mail. For example, F. A. Author is with the National Institute of Standards and Technology, Boulder, CO 80305 USA (e-mail: author@boulder.nist.gov).

S. B. Author, Jr., was with Rice University, Houston, TX 77005 USA. He is now with the Department of Physics, Colorado State University, Fort Collins, CO 80523 USA (e-mail: author@lamar.colostate.edu).

T. C. Author is with the Electrical Engineering Department, University of Colorado, Boulder, CO 80309 USA, on leave from the National Research Institute for Metals, Tsukuba, Japan (e-mail: author@nrim.go.jp).

World Bank to the United Nations and from politicians to academicians in a very short time.

Political democracy and market economy are separable concepts, but they tend to converge over the long run. McKinnon and Shaw postulate that private intermediaries operating in a liberalized financial environment (as distinct from government planners) make better use of funds at their disposal. There is much empirical support for their view that financial liberalization leads to financial deepening and fosters a more efficient allocation of investment (Williamson and Mahar, 1998). However, the well known study, “Good-bye financial repression, hello financial crash” (Diaz-Alejandro, 1985), reminds us that the economic stage should be prepared for change before liberalization is put in motion; otherwise the system could become prone to crashes, as demonstrated lately in Chile, Mexico, Russia, and several Eastern and Central European countries. Banks and securities markets cannot function properly unless their institutional foundations are strong. At the very least, we have learned out of experience that sudden financial liberalization can create instabilities when the underlying institutional structure contains serious weaknesses. Thus, the way financial liberalization occurs also matters, particularly for ensuring that financial development rests on sound institutional footings. It seems that what matters the most for growth is not the *form* in which financial services come, but the fact that they are provided in an efficient manner and supported by a proper institutional and competitive environment (Claessens, 2005).

Countries differ vastly in terms of economic and financial development around the globe. The average GDP per capita in the Islamic world is \$8,600, whereas, it is \$16,800 in non-Muslim countries. The global average income is \$14,450 (see Table 1). Apparently, the income per capita, widely acclaimed measure of development in a country, is significantly lower for the Islamic world than the rest of the world (almost half). Given the extant literature on the positive association between finance and growth (see Levine, 2005 for the survey of the literature), it is worthwhile to study the role of finance in the relative underdevelopment of the Muslim countries. To that end, this study presents the state of finance in the Islamic world by measuring the modern indicators of financial sector development (the breadth and depth statistics) at the 57 OIC countries. We also test the differences between OIC and non-OIC countries in terms of financial development, after controlling for economic development and regional endowments variations across countries. In the final stage, we relate these financial depth (vertical) and breadth (horizontal) indicators to the measures of institutional, regulatory, legal and physical and social infrastructure in the Islamic world (this stage is still under development).

II. THE LEVEL OF FINANCIAL DEVELOPMENT IN MUSLIM WORLD

The World Bank periodically publishes overall financial development indicators for many countries, as initially developed by Hanohan (2007), and indicators of financial access and use, as developed by Beck et al. (2006). In this analysis we utilize the most recent data sets collected by the World Bank, IMF, Heritage Foundation and Pew Research Group to examine the state of finance in the Islamic world as well as study the determinants of financial development, as measured by financial access and depth variables.

As Figure 1.1 reveals, the average income at the OIC countries is \$8,600, whereas it is \$17,000 at the non-OIC countries and \$14,000 at a typical country in the world. It is clear that the state of economic development in Islamic countries is significantly lagging behind that of the rest of the world. The OIC countries can only catch up by achieving faster economic growth than their peers. However, although its direction is debated, a strong economic growth requires a strong financial system (Levine, 2005; Isik, 2008). As Figure 1.2 demonstrates, about 75% of the adult population in Islamic countries is outside the financial system, with no formal account at a formal financial institution. This is a clear manifestation of underdevelopment of financial system in the OIC countries. Whether money or talent or nature or knowledge, most developing economies, including Muslim ones, tend to underutilize their scarce resources. So to speak, the challenge of economic development in Islamic countries is on the shoulder of only 25% of the population. The financial resources of the rest of the population are absent in the economic scene.

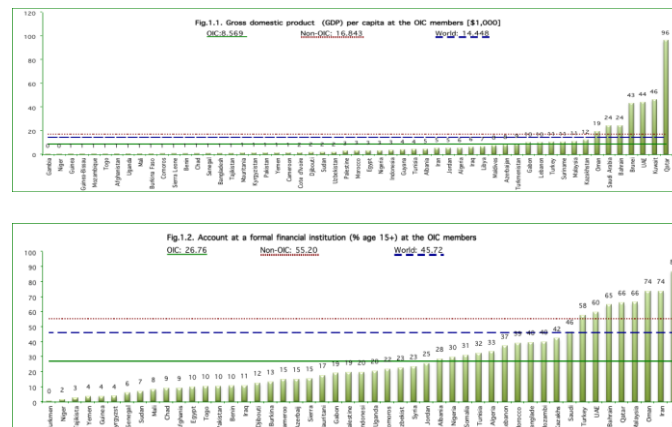


Fig. 1. Economic And Financial Development In The Islamic World – The GDP Per Capita & Diffusion Of
Financial Services At The OIC Members

Not surprisingly, given the low participation by the populace, the financial systems of Islamic countries are rather shallow. The average size of the banking industry at the OIC countries is 43% of the national income, whereas it is 76% in the non-OIC countries. The average size of securities markets in the Islamic world, represented by stock market capitalization to GDP is also lagging behind that of the rest of the world by about 10%. Furthermore, the levels of private credit, liquid monetary resources and bank deposits, which are the raw material for finance and necessary to finance entrepreneurship, innovation and productive investment opportunities in an economy are also rather low in the Muslim countries. Certainly, the lower “inside money” in the Islamic world means insufficient funds to support the intended faster growth. This could be a product of the Muslim world’s prosperity level or the Muslims’ attitude to financial institutions.

We know that “above ground money” should be flowing to either into banks or in securities markets in a typical economy. However, bond markets in the developing Islamic countries, are literally inexistent and the stock markets occupy non-trivial place in their financial system. The average size of the banking system, as mentioned, is less than half of the national income in the Islamic world, while most developed economies, have a banking market at least as big as their national economy. Obviously, the “Muslim money” does not travel to formal financial markets or institutions and are apparently wary of the current financial system. The miniscule size of the financial system in the Islamic countries obviously suggests that there are substantial drains from the system. Lack of trust in the financial system might have induced people to keep their money under mattress or in alternative forms of value storage, foreign currencies, gold, or other jewelleryes.

Any nation with important economic and financial goals needs every ‘dirham’, every talent, and every positive NPV project, however small, which will help it attain these goals. Thus, financial inclusion and financial diffusion are important and critical policy variables among the OIC countries to close the widening historical gap with the rest of the world. Then, towards this end, the first task is to determine the current state of finance in the Islamic world. What is the level of financial exclusion in this world? Why are many individuals and firms operating underground? What obstacles are they facing in accessing financial services? What could be done to broaden access and ‘domesticate’ idle resources, including the reluctant ‘Muslim money’?

III. WHAT EXPLAINS FINANCIAL DEVELOPMENT?

The limited breadth and depth of the financial sector at the OIC countries imply that there must be some barriers to financial access and use. World Bank researchers have developed a number of indicators of barriers to financial access and categorized them into three different dimensions: 1) Physical access refers to the points

of service delivery. 2) Affordability means the costs in terms of minimum balances and fees that bank customers need to pay to obtain financial services. 3) Eligibility refers to the criteria (in terms of documents or other requirements) that determine who can access financial services and who cannot. Explanations of the lack of access fall into two dimensions: financial institutions' specific factors and barriers from the overall institutional environment.

Beck et al (2005) in their empirical analysis explored such factors and barriers to explain cross-country variations in access to finance. Their correlation and regression results show that financial access indicators are significantly and positively associated with conventional indicators of economic development (GDP per capita) and financial development (private credit, liquid liabilities, and bank deposits to GDP). They also find that geographic access to banking services is positively correlated with population density. Expectedly, access to financial services is greater in larger economies. These results somewhat reflect economies of scale in the provision of financial services. Another noteworthy finding is that where access is wider, firms report lower financing obstacles. Moreover, even after controlling for country size and density, the authors detected important associations between financial access and other country traits and policy variables. In particular, they find that a better communication and transportation infrastructure is closely associated with greater access.

Countries with better-developed institutions enjoy greater levels of financial access. Quality of credit information sharing systems is positively associated with measures of access to bank outlets, whereas, restrictions on banks' activities and entry requirements are negatively correlated with access. They also reported that government ownership of financial intermediaries does not necessarily mean greater access and more concentrated banking systems are unexpectedly associated with more usage of financial services. Foreign banks do not directly increase access, nonetheless, their very existence pushes local firms to look downward and reach more customers. Interestingly, the effect of outreach does not systematically vary across firms of different size. In a follow up paper, Beck et al. (2006) examined the variations in barriers to bank access and use around the world. Specifically, they investigate indicators of 'physical access', 'affordability' and 'eligibility' barriers to deposit, loan and payment services. They found that banks in more economically and financially developed economies impose lower barriers. Barriers are negatively correlated with financial outreach and with lower financing obstacles. They concluded that bank size and the existence of physical infrastructure in a country are the most important determinants of barriers. In particular, they reported that larger banks demand lower minimum balances to open a checking account, charge lower checking and savings fees, require fewer documents to open accounts, impose lower minimum loan amounts for SMEs and consumer loans, need fewer days to process loans, and are more likely to accept loan applications through non-traditional delivery channels such as phone or the Internet. This is also another indication of scale economies in delivering financial services. Hitherto, empirical and theoretical literature has not attached much weight to the relationship between infrastructure, input costs, and financial depth and breadth.

IV. INCOME, GEOGRAPHY & FINANCE IN THE MUSLIM WORLD

Because there is a close association between GDP per capita and access and use of financial services, we constructed Table 1, to control for wealth, when comparing the OIC members with the rest of the world. The results indicate that in the great majority of financial depth and breadth statistics, the OIC countries lag behind those in the non-OIC countries even after controlling for differences in income. In the low, middle income and high-income country groups, the Muslim countries tend to follow from behind the rest of the world. However, the Muslim countries demonstrate relative superiority in the lowest income group as compared to their peers. The cultures, traditions and life styles are determined by geography. In addition, the endowments also significantly differ across localities.

In Table 2, we compare the financial development statistics of the OIC members with those of the neighbour countries in the same region. We come across with a similar finding that the OIC countries do not fare as well as their neighbours in terms of financial breadth and depth. Table 3 provides the correlations between financial depth and breadth measures. It is clear that financial development is very critical for economic growth as all the financial development measures are significantly correlated with GDP per capita.

Also the Muslim population percentage variable correlations demonstrate, as the fraction of Muslims

increase in a country, the financial development variables tend to diminish. It is evident that average Muslims do not approve or find the current financial system and products appealing to his or her expectations or beliefs. This is both a challenge and also opportunity in the Islamic world to develop inventive products to increase financial inclusion among the populace.

TABLE I
FINANCIAL DEVELOPMENT (DEPTH AND BREADTH) STATISTICS OF THE OIC COUNTRIES BY
GDP QUINTILES (Q1=LOWEST, Q5=HIGHEST)

Indicators	LOW INCOME: Q1			MIDDLE INCOME: Q3			MIDDLE INCOME: Q3			MIDDLE INCOME: Q4			HIGH INCOME: Q5		
	OIC	Non-OIC	World	OIC	Non-OIC	World	OIC	Non-OIC	World	OIC	Non-OIC	World	OIC	Non-OIC	World
Number of countries	20	18	38	11	27	38	10	28	38	8	30	38	9	32	38
GDP per capita (\$US)	823	744	786	2367	2487	2452	3741	3752	3749	11640	14443	13853	40380	49966	49400
Panel A: Financial Depth															
% Private credit	17.8	18.6	18.1	26.3	37.0	34.4	44.7	48.2	47.5	49.9	62.5	60.0	43.6	129.8	114.9
% Liquid liabilities	32.6	35.6	33.7	48.9	46.0	46.7	68.0	53.9	56.8	79.1	68.6	70.5	52.2	132.0	118.7
% Bank deposits	24.5	29.6	26.5	39.4	38.2	38.5	56.9	47.1	49.2	73.6	60.0	62.3	48.5	120.8	108.7
% Bank assets	24.1	22.1	23.5	38.7	44.2	42.9	63.9	54.4	56.4	68.8	78.2	76.3	56.5	140.9	113.0
% Stock mkt cap	15.6	17.7	16.5	37.0	31.5	33.2	61.1	39.0	41.3	51.5	35.1	38.0	54.1	85.9	81.8
Panel B: Financial Breadth															
% Acc't at a financial inst.	13.5	16.5	14.7	17.8	28.0	24.3	31.2	47.9	43.4	42.3	61.9	57.3	64.7	94.3	89.4
Bank brnch - 1,000 km ²	8.3	5.4	6.9	14.5	19.1	17.8	29.3	22.4	24.3	23.2	39.8	36.6	17.8	148.3	128.6
Bank brnch-100,000 people	4.4	3.5	4.0	10.3	13.2	12.3	14.5	31.4	26.9	15.4	26.0	23.9	14.6	32.9	30.2
ATM - 1,000 km ²	8.4	4.8	6.7	23.0	27.8	27.0	49.2	43.9	45.3	52.5	79.5	75.0	73.9	206.1	138.9
ATM - 100,000 people	5.2	3.8	4.5	13.2	25.3	21.8	23.1	45.4	39.4	30.4	65.7	63.2	67.9	108.8	102.5
Loan acct - 1,000 people	28.8	18.0	23.4	95.1	104.7	101.4	150.3	201.7	188.8	419.8	362.1	374.9	307.0	612.5	490.3
Loan income ratio	41.6	39.7	40.9	22.0	12.6	15.5	10.3	7.3	7.9	7.3	4.9	5.4	3.8	4.3	4.1
Deposit acct - 1,000 people	202.9	167.0	187.4	383.4	730.8	591.9	784.0	688.5	716.6	692.0	1112.8	1022.6	1038.0	1410.0	1242.0
Deposit income ratio	3.1	3.5	3.2	2.3	1.1	1.6	1.2	4.9	3.9	2.1	0.8	1.1	0.7	1.6	1.2
% Check usage +15	3.1	2.5	2.9	3.8	3.0	3.3	7.3	3.7	4.7	5.1	5.5	5.4	12.6	25.9	23.7
% Credit card +15	1.6	1.9	1.7	2.1	5.2	4.1	6.8	10.3	9.4	13.2	19.4	18.4	31.3	51.9	48.5
% Electronic pay +15	1.7	1.7	1.7	2.4	2.5	2.5	6.5	7.9	7.5	7.3	21.1	17.8	17.5	61.5	54.1
% Mobile phone pay +15	2.7	1.7	2.3	2.1	2.3	2.2	5.7	3.4	3.9	2.7	2.4	2.5	12.8	11.2	12.3
Panel C: Other Traits															
GDP per capita (\$US)	812.0	831.7	821.3	2363.0	2600.7	2535.9	3931.0	3701.5	3763.5	10860.0	14314.3	13587.1	45553.1	49678.4	49074.5
Population density	151.9	137.2	145.1	137.6	124.8	128.5	170.9	101.5	119.7	84.4	129.8	120.2	394.8	1281.3	1141.3
% Muslims	0.72	0.09	0.42	0.79	0.03	0.25	0.87	0.08	0.29	0.62	0.02	0.15	0.76	0.03	0.15

TABLE II
FINANCIAL DEVELOPMENT (DEPTH AND BREADTH) STATISTICS OF THE OIC COUNTRIES BY
GEOGRAPHICAL REGIONS

Indicators	Middle East-North Africa			Sub-Saharan Africa			Europe-Central Asia			South Asia			East Asia-Pacific			Latin America Caribbean			North America		
	OIC	Non-OIC	World	OIC	Non-OIC	World	OIC	Non-OIC	World	OIC	Non-OIC	World	OIC	Non-OIC	World	OIC	Non-OIC	World	OIC	Non-OIC	World
Number of countries	18	2	20	29	27	47	8	42	50	4	4	8	3	25	28	2	32	34	3		
GDP per capita \$US	17250	30549	18380	1458	3335	2937	9100	20199	23839	2608	2044	2345	10225	10421	10722	7300	9369	9247	53631		
PA: Financial depth																					
% Private credit	46	110	55	16	28	22	33	103	95	37	42	40	55	71	69	29	43	43	53		
% Liquid liabilities	74	155	81	31	39	35	40	89	83	53	61	57	74	92	90	53	55	55	70		
% Bank deposits	64	117	72	24	36	30	37	78	74	43	53	48	71	79	78	53	49	49	81		
% Bank assets	67	129	76	22	35	28	46	116	108	54	52	53	62	83	80	47	54	53	62		
% Stock mkt cap	49	55	50	24	38	34	21	42	41	17	42	32	95	96	96	41	41	115			
PB: Financial breadth																					
% Acc't at a financial inst.	40	93	45	13	26	21	22	74	65	20	43	31	45	67	64		34	34	92		
Bank brnch - 1,000 km ²	20	296	47	3	16	10	12	37	33	62	32	97	13	116	105	0	38	36	6		
Bank brnch-100,000 people	11	29	15	4	9	7	16	35	32	9	14	12	13	17	17	10	29	28	29		
ATM - 1,000 km ²	47	631	107	3	25	17	23	90	80	110	31	70	54	413	374	1	89	84	8		
ATM - 100,000 people	29	92	36	3	17	12	36	77	71	10	15	12	60	58	58	33	53	52	223		
Loan acct - 1,000 people	133	809	195	32	40	33	228	346	317	63	63	69	341	294	298		239	239			
Loan income ratio	16	16	12	27	28	4	4	37	37	37	37	4	9	7	4	4					
Deposit acct - 1,000 people	529	1070	612	162	429	310	409	1406	1150	391	391	1330	706	775	737		737	737			
Deposit income ratio	2	2	2	3	2	3	1	1	1	1	1	1	8	7	1	1	1				
% Check usage +15	9	46	13	3	4	4	2	11	9	3	4	5	4	12	11	3	3	3	60		
% Credit card +15	14	66	19	3	5	4	9	28	25	1	2	1	6	28	25	12	12	12	67		
% Electronic pay +15	9	44	13	3	4	4	3	37	31	0	1	1	8	31	28	6	6	6	67		
% Mobile phone pay +15	3	13	3	4	3	3	8	3	4	1	2	1	1	3	2	1	1	1			
PO: Other Traits																					
GDP per capita \$US	16281	27905	19304	1185	3112	2377	3873	20023	25233	2584	2023	2380	17287	15391	15375	4630	9153	9613	71010		
Population density	217	858	278	86	117	103	62	520	456	675	246	460	103	1153	1066	4	205	195	448		
% Muslims	0.09	0.09	0.82	0.62	0.08	0.31	0.90	0.07	0.19	0.98	0.07	0.52	0.75	0.82	0.08	0.17	0.06	0.01	0.01		

TABLE III
CORRELATION AMONG FINANCIAL DEVELOPMENT INDICATORS WITH ECONOMIC
DEVELOPMENT AND PERCENTAGE MUSLIM POPULATION

interest financial institutions in the world in recent years has notably shrunk this unbanked segment of the society. More can be done on this front by introducing more financial services and products compatible with religious concerns.

Islamic jurists could be called into service to mitigate the theological concerns of the pious and help invent new products to domesticate still untapped funds. As for discrimination, there are some concerns in certain circles that rural money is collected and loaned in urban areas. Moreover, holding banking structure is still a prevalent organizational form in the OIC members. Various major banks are under the control and ownership of business holdings and conglomerates or state.

Many Muslim entrepreneurs are complaining that some banks turn them down, if they have projects to enter a business line or industry where the parent company of the bank is doing business as well. As for injustices on the basis of religion, gender, age, or ethnicity, it is hard to judge without concrete evidence. We need more investigation. However, the bureaucracy of opening an account or obtaining a loan at the OIC members is much more problematic as compared to other countries (Isik, 2009).

The red tape observed in many Muslim countries could be some, albeit weak, sign of discriminatory tendencies. Legislations in the U.S., like the Community Reinvestment Act, which bars *red-lining* certain regions, and the Equal Credit Opportunities Act, which prohibits discrimination, could be enacted in the Muslim world to protect the innocent. Also, employing bank clerks speaking local dialects, or representing some ethnicities could help. Alternatively, the real problem could be a matter of poverty or financial illiteracy, not access, for certain groups. Then, financial or general education policies gain importance.

The large capital drain from the financial system at the OIC countries also signifies the trust issues inflicting their societies. Cash is still the most prominent payment instrument. Check payments are not common. Thus, people carry big stacks of cash around to settle daily transactions. Furthermore, bank failures; economic crises, social unrest and security issues do not help. Hence, the severe anorexia of Muslim citizens to deal with banks may be engraved in their psyche after a number of very costly and frequent mass bank failures, resulting mainly from outright fraud of bank owners and managers.

The lack of an effective legal and contractual system that will timely resolve conflicts between economic agents may be keeping many Muslims at bay. Market frictions like information asymmetries and agency problems can only be overcome by constructing a credible legal system, effective oversight, prudent regulations, transparent government and corporations, reliable accounting and auditing practices, and market discipline.

Moreover, inflationary fears of the past could still be in the public subconscious, which might be encouraging the holding of outside money like gold. Then, prudent macroeconomic policies become instrumental. There are also some signs that many banking services are not affordable for an average Muslim citizen. Fees charged on savings accounts, mortgage, business, and SME loans are considerably above world medians. This can be the result of weak competition among the banks at the OIC members.

According to many pundits of financial development and access, public efforts in the long run should be geared towards improving the *enabling institutional environment*, where all agents would feel safe to play and deal with strangers. However, for those who are impatient and suffering from reform fatigue, the best medicine in the short run is a *stiff competitive environment*, which encourages self-discipline in everyone.

REFERENCES

- [1] J. K. Banerjee, A. and Newman, A., (1993). Occupational Choice and the Process of Development. *Journal of Political Economy* 101, 274-98.
- [2] Beck, T. and Levine, R., (2005). Legal Institutions and Financial Development, in: Claude Menard and Mary Shirley, eds., *Handbook of New Institutional Economics*, Kluwer Dordrecht (The Netherlands).
- [3] Beck, T., Demirguc-Kunt, A. and Levine, R., (2004). Finance, Inequality and Poverty: Cross-Country Evidence. World Bank Policy Research Working Paper 3338.
- [4] Beck, T., Demirguc-Kunt, A. and Martinez Peria, M.S., (2005). Reaching Out: Access to and Use of Banking Services Across Countries, World Bank Policy Research Working Paper 3754.
- [5] Beck, T., Demirguc-Kunt, A. and Martinez Peria, M.S., (2006). Banking Services for Everyone? Barriers to Bank Access and Use Around The World, World Bank Policy Research Working Paper 4079.
- [6] Beim, D. O. and Calomiris, C. W. (2001). *Emerging Financial Markets*. New York: McGraw-Hill Companies.

- [7] Claessens, S., (2006). Access to Financial Services: A Review of the Issues and Public Policy Issues. *World Bank Research Observer*, forthcoming.
- [8] De la Torre, A., Gozzi, J.C. and Schmukler, S.L. (2006). Innovative Experiences in Access to Finance: Market Friendly Roles for the Visible Hand? Latin America Regional Studies Series, World Bank.
- [9] Diaz-Alejandro, C.F. (1985). Goodbye Financial Repression, Hello Financial Crash. *Journal of Development Economics* 19: 1-24.
- [10] Fukuyama, F. (1995). *Trust: The Social Virtue and the Creations of Prosperity*, New York: Free Press.
- [11] Galor, O. and Zeira, J., (1993). Income Distribution and Macroeconomics. *Review of Economic Studies* 60, 35-52.
- [12] Hanohan, Patrick (2007). Cross-Country Variation in Household Access to Financial Services, Proceeding of Access to Finance Conference, Washington DC.
- [13] Isik, I. (2009). What Explains the Variations in Financial Access Across Turkey? Working Paper, William G. Rohrer College of Business, Rowan University, NJ, USA.
- [14] McKinnon, R.I. (1973) *Money and Capital in Economic Development*. Washington D.C.: Brookings Institutions.
- [15] Peachey, S., and Roe, A. (2004). *Access to Finance, A Study for the World Savings Banks Institute*. Oxford Policy Management.
- [16] Rajan, R. and Zingales, L., (2003). *Saving Capitalism from the Capitalists*. Crown Business Division of Random House.
- [17] Shaw, E. (1973). *Financial Deepening in Economic Development*. New York: Oxford University Press.
- [18] World Bank (1998). *Finance for All? Policies and Pitfalls in Expanding Access*, World Bank Policy Research Report, Washington DC, USA.
- [19] Williamson, J. and Mahar, M. (1998). *A Survey of Financial liberalization*. Princeton, NJ: Princeton University Press Essays in International Finance, No: 211, November.

MULTI-CRITERIA DECISION MAKING AND THE CHOICE OF HOTELS IN TOURISM SECTOR

Bahadır Gülsün*, Sena Yıldız, Betül Yılmaz*****

**Bahadır Gülsün, Yıldız Technical University, İstanbul, Turkey*

E-Mail: bahadir2548@gmail.com

***Sena Yıldız, Industrial Engineering, Yıldız Technical University, İstanbul, Turkey*

E-Mail: senayildzz@gmail.com

****Betül Yılmaz, Industrial Engineering, Yıldız Technical University, İstanbul, Turkey*

E-Mail: betulyilmaz94@hotmail.com

ABSTRACT

In recent years, the choice of hotels for the holidays, has become more important to people. Therefore, a rapid change and improvements lived in tourism sector for achieving the increasing level of customer needs. In this paper, firstly decision theory and decision types are explained and the main features of multiple criteria decision making (MCDM) problems are summarized followed by a list of typical techniques used in MCDM analysis. Then the subject of MCDM is briefly demonstrated with an example which is the choice of hotels in tourism sector. In this example, five different hotels in Antalya, Balıkesir and Aydın cities were estimated by using three different multi criteria decision- making methods: Analytic Hierarchy Process (AHP), TOPSIS and VIKOR which are the most widely used MCDM methods. The main purpose of this study is to determine the optimum hotel alternative by expressing the weighting grades of selection criteria and the relationship between criteria and alternatives. Surveys are made with hundred people for weighting the criteria. Also five criteria for the selection of hotels are specified which are room fee, food diversity, cleaning service, security service and proximity to the sea. Finally relevant references are listed.

Keywords—Criteria, MCDM methods, selecting a hotel alternative

INTRODUCTION

In today's rapidly changing, increasingly difficult living and working conditions are forced to people, institutions or businesses constantly "good" and "success" to make a decision. To survive in such an environment, gain competitive advantage and making healthy decisions is a necessity to maintain it. Traditionally, in arriving at a decision, collected data related to the decision-making process and by analyzing the results intuitively. But now in many cases, to be able to succeed decisions an alternative way of behavior are evaluated with the support of scientific decision-making techniques. Multiple criteria decision making (MCDM) refers to making decisions in the presence of multiple, usually conflicting, criteria. MCDM problems are common in daily life. In personal context, a house or a car one buys may be characterised in terms of price, size, style, safety, comfort, etc. In business context, MCDM problems are more complicated and usually of large scale. For example, many companies in Europe are conducting organisational self-assessment using hundreds of criteria and sub-criteria. Purchasing departments of large companies often need to evaluate their suppliers using a range of criteria in different area, such as after sale service, quality management and financial stability. The development of the MCDM discipline is closely related to the advancement of computer technology. In one hand, the rapid development of computer technology in recent years has made it possible to conduct systematic analysis of complex MCDM problems. On the other hand, the widespread use of computers and information technology has generated a huge amount of information, which makes MCDM increasingly important and useful in supporting business decision making. There are many methods available for solving MCDM problems as reviewed by Hwang and Yoon [1981]. There were

calls in early 1990s to develop new methods that could produce consistent and rational results, capable of dealing with uncertainties.

SECTION 1 DECISION THEORY

Decision theory is theory about decisions. The subject is not a very unified one. To the contrary, there are many different ways to theorize about decisions, and therefore also many different research traditions. This text attempts to reflect some of the diversity of the subject. Its emphasis lies on the less (mathematically) technical aspects of decision theory. Modern decision theory has developed since the middle of the 20th century through contributions from several academic disciplines. Although it is now clearly an academic subject of its own right, decision theory is typically pursued by researchers who identify themselves as economists, statisticians, psychologists, political and social scientists or philosophers. There is some division of labour between these disciplines. A political scientist is likely to study voting rules and other aspects of collective decision-making. A psychologist is likely to study the behaviour of individuals in decisions, and a philosopher the requirements for rationality in decisions. However, there is a large overlap, and the subject has gained from the variety of methods that researchers with different backgrounds have applied to the same or similar problems. [1]

SECTION 2 MULTI - CRITERIA DECISION MAKING

Multi-criteria decision making is a sub-discipline of operation research that explicitly considers multiple criteria in decision-making environments. Whether in our daily lives or in professional settings, there are typically multiple criteria that need to be evaluated in making decisions. Structuring complex problems well and considering multiple criteria explicitly leads to more informed and better decisions. There have been important advances in this field since the start of the modern multiple-criteria decision-making discipline. [2]

2.1 MCDM Problems

Multi-criteria decision-making problems can be examined under three main headings. These are choice, sorting and ranking problems. [2]

Choice Problems: Purpose of choice problems is to determine the best alternative or to be compared with each other that many alternatives available is to make a good choice in a difficult group. [2]

Sorting Problems: In this type of problems, alternatives are classified according to certain criteria or preferences. The main aim in here is to reunite the alternatives show similar characteristics and behavior. [2]

Ranking Problems: In ranking problems, alternatives are classified from good to bad in measurable or identifiable manner. [2]

2.2 MCDM Methods –An overview

Today, there are many techniques used in solving the current multi-criteria decision-making problems, thanks to advancing technology for the implementation of these techniques developed computer programs to solve problems trying to researchers, managers and decision-makers are quite bring great convenience. The MCDM methods used according to the types of problems are as follows ; [2]

Table 1
Classification of MCDM Method

	Choice Problems	Sorting Problems	Ranking Problems

Method	AHP	ELECTRE III	AHP Sort
Method	ANP	TOPSIS	UTADIS
Method	MAUT/UTA	PROMETHEE	ELECTRE-Tri
Method	PROMETHEE	AHP	FlowSort

2.2.1 ANALYTIC HIERARCHY PROCESS (AHP) METHOD

AHP can be described as a multi-criteria decision making and forecasting method that is used at decision hierarchy and it gives the percentage distribution of decision points in terms of factors that affect the decision. AHP is based on comparisons that are used to define the importance value of the decision points in terms of the factors that affect the decision using a predefined comparison scale. [3]

To make comparisons, we need a scale of numbers that indicates how many times more important or dominant one element is over another element with respect to the criterion or property with respect to which they are compared. [4]

Table 2
Evaluation Scale in AHP

Importance Levels	Value Definitions
1	Both factors have equal value.
3	1.factor is more important than the 2.factor.
5	1.factor is much more important than the 2.factor.
7	1.factor has a very strong importance when compared the 2.factor.
9	1.factor has a superior importance when compared the 2.factor.
2,4,6,8	Intermediate values

The main purpose is to determine how much the importance values (relative priority) reflect the reality. In order to consider AHP valid, matrices must be consistent. [3]

2.2.2 TOPSIS METHOD (Technique of Order Preference by Similarity to Ideal Solution)

TOPSIS is a multiple criteria method to identify solutions from a finite set of alternatives. The basic principle is that the chosen alternative should have the shortest distance from the positive ideal solution and the farthest distance from the negative ideal solution. [5]

A positive ideal solution maximizes the benefit criteria or attributes and minimizes the cost criteria or attributes, whereas a negative ideal solution maximizes the cost criteria or attributes and minimizes the benefit criteria or attributes. [6]

2.2.3 VIKOR METHOD

The VIKOR method was developed for multi-criteria optimization of complex systems. It determines the compromise ranking-list, the compromise solution, and the weight stability intervals for preference stability of the compromise solution obtained with the initial (given) weights. [7]

This method focuses on ranking and selecting from a set of alternatives, and determines compromise solution for a problem with conflicting criteria, which can help the decision makers to reach a final solution. [8]

SECTION 3 THE HOTEL SELECTION IN TOURISM SECTOR

Nowadays, with the development of the tourism sector, the expectations and demands of customers are changes. Customers have the choice of accommodation businesses have started to act more prudently. These developments have led to a rapid increase in competition in terms of accommodation establishments. In particular, the hospitality industry, offering alternative services is a sector that is experiencing the intense competition. [9]

In this study, with the help of AHP, TOPSIS and VIKOR methods, the hotel can provide the highest satisfaction to our customers, that is to determine the most suitable hotel. In this context, in Antalya, Balıkesir, Bodrum and Aydın regions five hotels operating in the basement were discussed by decision makers because the five regions are important touristic city in Turkey. It was also considered that the decision makers should have experience about these hotels which are chosen due to evaluating the criteria. Hotels under investigation were evaluated for five different criteria. These criteria are room fee, food diversity, security service, cleaning service and proximity to the sea. For identifying these criteria and their importance, there is a survey which includes over hundred people's suggestions. Especially, these people who spend their summer vacations in hotels regularly were chosen. In the following table, we can see the hotel alternatives and criteria.

Table 3
Hotel Alternatives and Criteria

	HOTEL		CRITERIA
S1	LIONA RESIDENCE BODRUM	K1	ROOM FEE FOR ONE NIGHT (TL)
S2	CAPRICE PALACE AYDIN	K2	CLEANING SERVICE
S3	SAH-INN PARADICE ANTALYA	K3	FOOD DIVERSITY
S4	TITANIC BEACH LARA ANTALYA	K4	SECURITY SERVICE
S5	SUNLIGHT HOTEL BALIKESIR	K5	PROXIMITY TO THE SEE (m)

3.1 Solution with AHP Method

Firstly, the decision matrix which has the five alternatives and five criterias was created and the best values were determined in the decision matrix.

Table 4
Decision Matrix and Normalized Decision Matrix

	COST	BENEFIT	BENEFIT	BENEFIT	COST	COST	BENEFIT	BENEFIT	BENEFIT	COST
	K1	K2	K3	K4	K5	K1	K2	K3	K4	K5
S1	82	6	3	5	20	1,000	0,667	0,333	0,556	0,500
S2	235	6	5	8	10	0,349	0,667	0,556	0,889	1,000
S3	303	9	9	9	50	0,271	1,000	1,000	1,000	0,200
S4	394	8	7	9	100	0,208	0,889	0,778	1,000	0,100
S5	136	5	4	4	300	0,603	0,556	0,444	0,444	0,033

Comparing the criterias with each other can provide more specific and accurate solution. Because of that, the five criterias were evaluated by over a hundred people and according the results comparison matrix was created and criteria weights were calculated.

The weighted matrix was created with multiplying criteria weights and normalized decision matrix and it was decided which hotel should be chosen. Consequently, it was found that the first hotel alternative is the most appropriate option that is LIONA RESIDENCE (BODRUM).

Table 5

Weighted Matrix

	K1	K2	K3	K4	K5	Average	Normalization	Nominal Value
S1	0,515	0,224	0,027	0,015	0,020	0,160	0,271	1,356
S2	0,180	0,224	0,045	0,024	0,040	0,103	0,174	0,868
S3	0,139	0,336	0,082	0,027	0,008	0,118	0,200	1,002
S4	0,107	0,299	0,064	0,027	0,004	0,100	0,169	0,847
S5	0,311	0,187	0,036	0,012	0,001	0,109	0,185	0,926
						0,591	1,000	5,000

3.2 Solution with TOPSIS Method

First of all, ideal and negative ideal alternatives should be determined in normalized matrix and then maximum matrix and minimum matrix are created with determining the difference between every value and maximum or minimum value in every column.

Table 6
Maximum and Minimum Matrix

MAXIMUM						MINIMUM					
S1	0,000	0,112	0,055	0,012	0,020	S1	0,408	0,037	0,000	0,003	0,019
S2	0,335	0,112	0,036	0,003	0,000	S2	0,073	0,037	0,018	0,012	0,038
S3	0,376	0,000	0,000	0,000	0,032	S3	0,032	0,149	0,055	0,015	0,007
S4	0,408	0,037	0,018	0,000	0,036	S4	0,000	0,112	0,036	0,015	0,003
S5	0,205	0,149	0,045	0,015	0,038	S5	0,203	0,000	0,009	0,000	0,000

Lastly, the total values of every row are found in minimum and maximum matrix. Ratio ofow totals gives us the best solution. Here, the first alternative has the maximum rate. Because of that first alternative that is LIONA RESIDENCE (BODRUM) should be chosen according to this method.

Table 7
Ratio of Row Totals

ROW TOTAL (MAX)	ROW TOTAL (MIN)	MIN/MAX
0,198	0,467	2,353
0,487	0,178	0,367
0,408	0,258	0,632
0,499	0,166	0,332
0,453	0,213	0,469

3.3 Solution with VIKOR Method

The best and worst values are determined in the first step of VIKOR Method from decision matrix.

Table 8
The Best and Worst Values of Decision Matrix

	BEST (d_j)	WORST (d_j)
K1	82	394
K2	9	5
K3	9	3
K4	9	4
K5	10	300

In second step, by subtracting from best values to decision matrix values dividing by subtracting from best value to worst value in decision matrix and normalization decision matrix is created by using r_{ij} variables. Also criteria weights are calculated according to criteria comparison matrix that compose of between one to ten values between criteria. Moreover, by multiplying the criteria weights and r_{ij} values weighted normalization matrix is obtained. Then in the fourth step, S_i and R_i value are calculated. These values demonstrate the average and worst group scores for alternatives. S_i value is calculated by sum of the weighted normalization matrix elements that are v_{ij} values. R_i value is maximum of the v_{ij} values.

Table 9
Weighted Normalization Matrix and S_i - R_i Values

	K1	K2	K3	K4	K5	S_i (AVERAGE)	R_i (WORST GROUP)
S1	0,000	0,342	0,111	0,046	0,003	0,502	0,342
S2	0,144	0,342	0,074	0,011	0,000	0,572	0,342
S3	0,208	0,000	0,000	0,000	0,011	0,219	0,208
S4	0,294	0,114	0,037	0,000	0,025	0,470	0,294
S5	0,051	0,456	0,093	0,057	0,082	0,738	0,456

In step 5, to calculate the Q_i values firstly min S_i , max S_i , min R_i and max R_i values are found. Another parameter q that use to calculate Q_i values shows maximum group benefit. Then, Q_i values of each alternative are calculated by using the different q values.

Table 10
Calculation of Q_i Values

CALCULATING Q_i VALUES							
	S_i	R_i	($q=0$)	($q=0,25$)	($q=0,5$)	($q=0,75$)	($q=1$)
S1	0,502	0,342	0,540	0,541	0,542	0,543	0,544
S2	0,572	0,342	0,540	0,575	0,609	0,644	0,679
S3	0,219	0,208	0,000	0,000	0,000	0,000	0,000
S4	0,470	0,294	0,346	0,380	0,415	0,449	0,483
S5	0,738	0,456	1,000	1,000	1,000	1,000	1,000

S^*	0,219
S^-	0,738
R^*	0,208
R^-	0,456

Table 11
Ordering The Alternatives

	($q=0$)	($q=0,25$)	($q=0,5$)	($q=0,75$)	($q=1$)	S_i	R_i
S1	3	3	3	3	3	3	3
S2	3	4	4	4	4	4	3
S3	1	1	1	1	1	1	1

S4	2	2	2	2	2	2	2
S5	5	5	5	5	5	5	5

In sixth step, by aligning S_i , R_i and Q_i values from small to large, three ranking list is obtained. Then, to test the accuracy of the ranking, alternative with a minimum value is checked whether it meets two conditions. Condition 1 is acceptable advantage condition and condition 2 is acceptable stable condition. Their formulas are given in below table.

Table 12
Monitoring Conditions and Accuracy Test

Q (A²)	0,346	0,380	0,415	0,449	0,483
Q (A¹)	0,000	0,000	0,000	0,000	0,000
Q (A²) - Q (A¹)	0,346	0,380	0,415	0,449	0,483
DQ	0,25	0,25	0,25	0,25	0,25
CONDITION 1	CORRECT	CORRECT	CORRECT	CORRECT	CORRECT
CONDITION 2	CORRECT	CORRECT	CORRECT	CORRECT	CORRECT

RESULTS AND ASSESSMENTS

The change in customer demands are increasing due to hard competition conditions of global world and it affects hotel businesses profoundly. For the hotels to be able to stand out in the competitive environment, it is necessary for them to satisfy their customers' expectations by offering high quality services and even by making further improvements in their service design. Those hotels that adopt such styles are able to achieve customer loyalty and satisfaction through meeting and considering their expectations which in turn brings along profitability.

In this study, three MCDM methods (AHP, TOPSIS, VIKOR) were described and used for hotel choice in tourism sector. First of all, it was considered about the important criteria which are used in hotel sector and they are identified as room free, cleaning service, food diversity, security service and proximity to the sea by decision makers. Criteria weights are also necessary for importance level. They are calculated with a survey which has over hundred people. Moreover, five hotel alternatives are chosen in different places. They are LIONA RESIDENCE in Bodrum, CAPRICE PALACE in Aydın, SAH-INN PARADICE and TITANIC BEACH LARA in Antalya and SUNLIGHT HOTEL in Balıkesir.

According to AHP and TOPSIS method, LIONA RESIDENCE is found the most appropriate alternative when it is focused on the criteria weights. However, VIKOR method did not give any result for choosing the most available hotel since all alternative hotels provided on two conditions which are acceptable advantage condition and acceptable stable condition. Therefore VIKOR method is not relevant with this study that is hotel choice in tourism sector. As a result, when all methods are evaluated, the recommended alternative that is LIONA RESIDENCE in Bodrum should be chosen according to all determined criteria.

REFERENCES

- [1] Hansson O. S. (1994). "Decision Theory", Department of Philosophy and the History of Technology, Stockholm.
- [5] Chen T. (2000). "Extensions of the TOPSIS for Group Decision-Making under Fuzzy Environment" The Overseas Chinese College of Commerce, Taichung, Taiwan.

- [4] Saaty T. (2008). "Decision Making with the Analytic Hierarchy Process" *Int. J. Services Sciences*, Vol. 1, No. 1, pp. 83-98.

- [8] Sayadi M. K. , Heydari M. and Shahanaghi K. (2008). "Extension of VIKOR method for decision making problem with interval numbers" , *Applied Mathematical Modelling* , Vol. 33, No. 5, pp. 2257-2262.

- [3] Erbas A. ,Parlakaya R. (2012). "The Use of Analytic Hierarchy Process in the Balanced Scorecard: An Approach in a Hotel Firm" , *Selcuk University, Turkey*.

- [6] Wu F. and Chuang C. , (2013) "The Optimal Relationship between Buyer and Seller Obtained Using TOPSIS Method," *Journal of Advanced Management Science*, Vol. 1, No. 1, pp. 133-135.

- [9] Dogan O.N. , Gencan S. (2013). "Selecting the Optimum Hotel from the Viewpoint of Travel Agency Managers: An Analytic Hierarchy Process (AHP) Case Study" , *Nevsehir University, Nevsehir*.

- [2] Yildirim F. (Ed.) , Onder E. (Ed.) (2015). "Cok Kriterli Karar Verme Yontemleri" (2. Edition), *Bursa*.

- [7] Zormpa D. , Tzimopoulos C. , Evangelides C. and Sakellariou M. (2015). "Multiple Criteria Decision Making Using VIKOR Method. Application in Irrigation Networks in the Thessaloniki Plain" *University of Thessaly, Greece*.

CASH CONVERSION EFFICIENCY, DAYS OF WORKING CAPITAL IMPACT ON FIXED CAPITAL AND WORKING CAPITAL INTENSIVE FIRMS

OSCAR BRIONES, DBA (c)

UNIVERSIDAD DE ESPECIALIDADES ESPIRITU SANTO
GUAYAQUIL, ECUADOR
oscarbriones@hotmail.com

VERÓNICA NAVAS

UNIVERSIDAD DE ESPECIALIDADES ESPIRITU SANTO
GUAYAQUIL, ECUADOR
veronavas@uees.edu.ec

ABSTRACT

Working capital management performs a key role on companies. However, firms still ignore its importance because it involves only short term periods; management sometimes is more oriented toward long term investment financial decisions, which might seem more relevant to increase profitability. However, research about working capital impact on profitability has been developed in several industries and countries. Only few studies have been conducted on a dollarized developing economy in the twenty first century. Our research attempts to explain this relationship, examining the effect of Cash Conversion Efficiency (CCE), Debt Ratio (DR), Days of Accounts Receivables (DAR), Days of Inventory (DI), Days of Working Capital (DWC), Net Current Assets/Total Assets (NCA/TA) and Ln of Total Assets (Ln TA), on profitability measured by Return on Assets (ROA). The study employed cross-sectional methodology to analyze four hundred and sixty companies selected from Superintendence of Companies 2013 database. The sample was divided in two groups according to current assets ratio: Working Capital Intensive and Fixed Capital Intensive group. The research revealed that CCE, DR, DAR, DI, DWC influenced ROA, in Working Capital Intensive group. However, Fixed Capital Intensive group analysis demonstrated that only CCE, DI and DWC had an impact on profitability. Additionally, we developed a proposition with a different combination of variables in an attempt to better explain the dependent variable in the Fixed Capital Intensive group.

Keywords:, *cash conversion efficiency, working capital intensive, fixed capital intensive.*

INTRODUCTION

Working capital management and its impact on profitability has been discussed by several authors throughout the years: Shin and Soenen (1998), Lazaridis and Tryfonidis (2006), Pimpapalur and Kulkarni (2011), Malik and Bukhari (2014), Ofunya (2015) and others. They have proposed different models to identify the relationship between the components of working capital and profitability measures. However, management's main concern is usually long term investment financial decisions, which might represent higher revenues. These lead firms to ignore the relevance of working capital and its components in business operations. According to Samiloglu and Dermigunes (2008), despite positive returns, bankruptcy is caused by inappropriate management of working capital, which indicates that companies should have a balance between liquidity and profitability. Genoni and Salvador (2004) argue that working capital is not only a measure to be considered, but also a strategic decision within a company. Its management not only affects profitability and risk, but also market value (Deloof, 2003; Howorth & Westhead, 2003; Jayarathnea, 2014).

Companies' owners consider that working capital management is only a concern for the financial manager. This practice, extended over Latin American companies, ignores that finance departments do not control all the decisions that influence working capital needs, but also depends on the industry where the

company operates. It is a responsibility that concerns all managers, in order to keep all working capital components at an optimal level, avoiding negative effects in liquidity (Sanz, 2012). Still, these decision makers have a lack of knowledge about which is the ideal level of liquidity or current assets to maximize companies' value (Brealey, Myers, & Allen, 2008). We believe that liquidity is linked with working capital. On the latter, Harris (2005) considers that financial managers' view of working capital is to find resources to fund the gap between current assets and current liabilities. Hall (2002) expands on the previous suggesting that a more complete approach for working capital management should exist, covering activities that involve product, customer and vendor.

An appropriate working capital management involves eliminating the risk of not meeting short term commitments as well as avoiding excess of investment in current assets (Eljelly, 2004). Ganesan (2007) expands on the latter as he mentions that it demands an optimum level of all its components, receivables, inventory and payables in the daily activity of the company. However, there are several factors affecting working capital level, for instance managers can decide to dispose of liquid assets if there is a need of resources for an investment. This could include pushing inventory levels to their lowest point, adopting an aggressive working capital policy (Palombini & Nakumara, 2012). This decision may lead to stockouts, liquidity issues and therefore, problems for the company to operate normally. In another scenario, a conservative approach can be taken by managers, keeping high levels of current assets, which can cause adverse effects in profitability (Van Horne & Wachowicz, 2004).

This topic has been studied across industries and countries. Among these studies there has been a consensus about the importance of proper working capital management practices and its impact on company's performance and profitability (Pitt, 2014). Some economies such as the United States (Belt & Smith, 1991), Australia (Gill, Biger, & Mathur, 2010), Canada (Khoury, Smith, & MacKay, 1998), Brazil (De Almeida & Eid, 2014) and Malaysia (Hassim, Kadir, Lew, & Sim, 2003) have been analyzed. However, this topic has not been explored deeply enough in Ecuador to provide a clear view of working capital behavior and its components in local companies in the twenty first century. Extant research is limited to the mutual interaction of taxes and accounting practices (Villacreses & Jara, 2011) and the influence of working capital on the insurance industry (Vásquez & Quisigüña, 2016). Therefore, our research aims to provide a wider view of working capital's effect on profitability, showing results across industries and segmenting the sample depending on the percentage of current assets. Working capital is measured by Cash Conversion Efficiency (CCE), Debt Ratio (DR), Days of Accounts Receivables (DAR), Days of Inventory (DI), Days of Working Capital (DWC), Net Current Assets/Total Assets (NCA/TA) and Ln of Total Assets (Ln TA) and profitability is expressed by Return on Assets (ROA).

LITERATURE REVIEW

Cash conversion cycle theory

Richards and Laughlin (1980) suggest that the traditional view of common static liquidity analysis provided by current ratio is limited and insufficient to explain liquidity and working capital position of a firm. Also, in an attempt to compensate the short comings of the previous ratio, quick ratio was developed, purposefully isolating inventory to provide a more liquid metric, measuring the righteous firms' liquidity capabilities to cover short term liabilities. Nevertheless, authors firmly believe that both ratios are unsatisfactory to properly explain the financial position of a firm. They proposed a cash conversion cycle as an improved tool, due to its dynamic vision.

A cash conversion cycle establishes the existing time frame to convert a dollar outflow into a dollar inflow in the normal course of operations in a firm. Working capital availability is subjected to this inflow or outflow of money, influenced by a firm's credit terms, collection policy and payables turnover. Cash conversion cycle theory provides a wider view of liquidity and combines outflow and inflow components.

Contemporary models of working capital

Mousavi and Jari (2012) tried to determine the relationship between working capital and corporate performance, in order to address the discussion of whether working capital management affected financial variables or not. They used correlation coefficients to determine the relation between different variables, as well as central indexes and dispersion for data analysis. The sample selected from Tehran Stock Exchange from 2004-2007 helped develop a model. This demonstrated that there is a significant relationship between corporate performance and components of working capital, as it showed that there is a significant

relationship among Net Liquidity Balance (NLB), the dependent variable and Return on assets (ROA), Return on equity (ROE) and Price to Book ratio (P/B) as the independent variables.

Nazir and Afza (2009) formulated a model where the dependent variable was Working capital requirements deflated by total assets (WCR_TA). The independent variables included Operating cycle (OC), operating cash flows deflated by total assets (OCF_TA), economic activity (EA), sales growth (Growth), ROA, Tobin's q (Q), Leverage (Lev), logarithm of total assets as proxy of size of the firm (LN Size) and industry dummy (IndDum). Panel data was applied with the information from nine years, using Ordinary Least Square (OLS). This study selected one hundred and thirty two companies from fourteen industrial groups listed in Karachi Stock Exchange from 2004 to 2007. It showed that the factors affecting working capital vary from industry to industry. Operating cycle has a positive significant relationship with Working capital requirement, as well as Tobin's q. Debt has a strong negative correlation with the dependent variable. This study also demonstrated that operating cash flow has a positive relationship with working capital. However, there is no significant relationship between economic activity and size with the dependent variable. These findings agree with Chiou and Cheng (2006) and Lamberson (1995), whose studies support results of Nazir and Afza research, except for operating cash flow, which shows a negative relationship with the dependent variable in Chiou and Cheng's research.

According to Shahzad, Fareed and Zulfiqar (2015) in Pakistan, the strongest industry is cement. Authors collected information from twelve listed firms from the Karachi Stock Exchange (2007-2013), OLS used ROA as the dependent variable and current ratio (CR), Quick ratio (QR), Net current assets to total assets (NCA/TA), Working capital turnover (WCT) and inventory turnover (ITR) as the control variables. The findings of the model revealed a positive effect of NCA/TA, CR and ITR on ROA. However, the model exposed a negative outcome of WCT and QR on ROA.

Singhania, Sahrama and Rohit (2014) conducted a study which explored the relationship between working capital and profitability of eighty two Indian manufacturing companies in the BSE-500 index, from 2005 to 2012. The authors divided the time period in three phases: 2005-2006, 2007-2008 and 2009-2010, prior, during and after the global recession. They intended to depict the impact of macroeconomic events on working capital. Four models were used with panel data analysis, where Gross Operating Profit (GOP) was considered as the dependent variable. These four different models aimed to identify the relationship between the regressand and each the four main exogenous variables: Cash Conversion Cycle (CCC), Receivables Collection Period (RCP), Inventory Conversion Period (ICP) and Payment Deferral Period (PDP) respectively. Additionally, other independent variables such as firm size, sales growth, debt ratio, current ratio, quick ratio and dummies variables were added for each of the four equations. The results showed that there is a negative relationship between CCC and RCP with profitability. The third model revealed that there is no significant relation between GOP and ICP. The fourth model showed there is a positive relationship between GOP and PDP.

Song, Liu and Chen (2012) developed a study of the manufacturing industry, with a sample of companies listed in Shanghai and Shenzhen stock exchange from 1996-2009. The model used sales growth as the dependent variable and working capital turnover capacity and liquidity as independent variables. Working capital turnover capacity is measured by liquid assets turnover, inventory turnover and cash conversion cycle. Liquidity is represented by liquidity ratio and quick ratio. Other factors such as size, sales costs and product market performance were considered by the authors. Linear regression based on panel data analysis was used for this study. The research concluded that liquid assets turnover and inventory turnover have a positive relationship with the dependent variable. However, the model demonstrated that CCC negatively affects market competition performance (sales growth).

Shin and Soenen (1998) researched the influence efficient management of working capital has on profitability. The authors employed four models using the following dependent variables: IA (operating income + depreciation/total assets), IS (operating income + depreciation/net sales), Jensen's Alpha and Treynor Index¹. The independent variables included Net trade cycle, current ratio, debt ratio and sales growth. The sample they selected covered the period 1975-1994. Authors used panel data; the results demonstrated that

¹ Profitability is expressed by the variables IA and IS.

Jensen's alpha and Treynor index are used to measure risk-adjusted stock returns.

Net trade cycle has a negative relationship with profitability and risk-adjusted stock returns, as well as current and debt ratio. However, results showed that sales growth has a positive relationship with both measures.

Ching, Novazzi and Gerab (2011) conducted a study across industries, about the relation between corporate profitability and working capital management in Brazilian listed companies. The sample was divided in two groups of sixteen companies each: Working Capital Intensive, with current assets higher than 50% of the total assets, including textile, clothing footwear, retail, chemical and distribution sector and fixed capital intensive with current assets lower than 50% of total assets; this group included steel, petrochemical and refining industries. The independent variables used for this study were Cash conversion efficiency (CCE), debt ratio (DR), days of receivables (DAR), days of inventory (DI) and days of working capital (DWC). The dependent variable was profitability, measured in terms of Return on sales (ROS), Return on assets (ROA) and Return on equity (ROE). The results of this study in Working Capital Intensive group showed that cash conversion efficiency has a positive relation with ROS. However, debt ratio, days of inventory, and days of working capital have negative relationship with this dependent variable. There is no relationship between days of receivables and ROS. Concordantly with this model, CCE has a positive relationship with ROA. Nevertheless, the other four variables have a negative relationship with ROA.

The analysis of fixed capital intensive group used the same dependent and independent variables as Working Capital Intensive group. The results showed that CCE, DR, DI, DWC have a negative relationship with ROS. The regressand ROA, had a negative relationship with CCE, DR and DI. However, DAR and DWC showed a positive relation. The authors did not find significant statistical evidence to demonstrate a relationship between the independent variables and ROE, neither in the Working Capital Intensive nor Fixed Capital Intensive group.

METHODOLOGY

The study used *Superintendence of Companies* database, where 1000 of the best Ecuadorian companies are rated according to their assets, equity, sales and profits and classified by industries. The sample was divided in two groups according to current assets ratio², using Ching, Novazzi and Gerab (2011) methodology.

Variables:

The research considered Return on Assets as the exogenous variable for both: Working Capital Intensive and Fixed Capital Intensive. This is a ratio of profitability that represents the efficiency of the assets in relation with profits. Specifically for Working Capital Intensive group, the control variables were cash conversion efficiency (CCE), debt ratio (DR), days of inventory (DI), days of accounts receivables (DAR) and days of working capital (DWC). The aforementioned variables were tested for Fixed Capital Intensive group, revealing that only three CCE, DI, and DWC, were statistically significant to explain ROA. However, in this group there is a high correlation ($\rho = 0.94$) between explanatory variables: CCE and DWC. Since, Ching, Novazzi and Gerab (2011) literature uses the previously mentioned variables we incorporated them in equation (1b).

Proposition I

In addition to Ching's Fixed Capital Intensive model, we developed our own proposition, where variables from Shahzad, Fareed and Zulfiqar (2015), Pervan and Visic (2012) and Ching, Novazzi and Gerab (2011) were tested statistically. Consequently, for this group, the independent variables were Net current assets/Total assets (NCA/TA), Ln of total assets (LN TA), debt ratio (DR) and days of inventory (DI), respectively and the dependent variable was Return on Assets (ROA).

$$ROA = \beta_0 + \beta_1 \frac{NCA}{TA} + \beta_2 \ln TA + \beta_3 DR + \beta_4 DI + \beta_5 \text{DWC} \quad (1a)$$

$$ROA = \beta_0 + \beta_1 \frac{NCA}{TA} + \beta_2 \ln TA + \beta_3 DR \quad (1b)$$

$$ROA = \beta_0 + \frac{\beta_1}{\beta_2} \ln TA + \beta_3 \frac{NCA}{TA} + \beta_4 DR + \beta_5 \text{DWC} \quad (2)$$

Equations (1a), (1b) and (2) were developed using cross sectional methodology since data availability from *Superintendence of Companies* only permitted information disclosure from one year: 2013. Similarly,

² $\frac{\text{current assets}}{\text{total assets}}$

other authors such as Lazaridis and Tryfonidis (2006), Al-Shubiri (2010), Nyamao, Lumumba, Odondo and Otieno (2012) have applied cross sectional models to study working capital management.

RESULTS

Following Ching study, our research was divided in two groups. Table 1 shows Ching's model results for Working Capital Intensive group (1a) and Fixed Capital Intensive group (1b). Proposition I for Fixed Capital Intensive group (2) is exhibited in Table 2. These tables demonstrate the independent variables and the most relevant of the combinations³ exhibited in Tables 7, 8 and 9, corrected for heteroscedasticity and autocorrelation, using HAC Newey West for Working Capital Intensive and Fixed Capital Intensive, including 340 and 120 firms, respectively.

³ The models were chosen due to the significance level of their variables.

**Table 1: Ching's model. Results matrix –
Working Capital Intensive group (column 1a)
and Fixed Capital Intensive group (column 1b).**

	(1a)	(1b)
Cash Conversion Efficiency	0.64851*** [0.16073]	0.51247*** [0.17673]
Debt ratio	0.132746*** [0.03053]	
Days of Accounts Receivables	0.000739*** [0.00018]	
Days of Inventory	0.000895*** [0.00017]	0.000506*** [0.00017]
Days of Working Capital	0.001198*** [0.00033]	0.001061*** [0.00038]
Constant	0.193947*** [0.01688]	0.02742 [0.01725]
Observations	340	120
Degrees of freedom	334	116
R-squared	0.267384	0.07873
Adjusted R-squared	0.256417	0.054904
Robust and standard errors in brackets. *Significant at 10% **Significant at 5% ***Significant at 1%		

**Table 2: Proposition I. Results matrix
Fixed Capital Intensive group**

	(2)
Net Current Assets/ Total Assets	0.37057*** [0.12953]
LN of Total Assets	0.02988*** [0.00871]
Debt Ratio	-0.13883*** [0.04671]
Days of Inventory	-0.00072*** [0.00013]
Constant	-0.51033*** [0.17406]
Observations	120
Degrees of freedom	114
R-squared	0.261319
Adjusted R-squared	0.235626
Robust and standard errors in brackets *Significant at 10% **Significant at 5% ***Significant at 1%	

The Working Capital Intensive group featured in Table 3 has eight combinations using twelve variables. The chosen model includes five variables at 1% significance level and the model's R-squared is 26.74%. Even though Table 3 shows that models from (2) to (8) have a stronger R-squared, the variables did not pass the t – test.

Equation (3) suggests that in the Working Capital Intensive group for every unit debt ratio increases, ROA decreases by 0.132746; for every unit days of receivables increases, ROA decreases by 0.000739; for every unit days of inventory increases, ROA decreases 0.000895 and for every unit days of working capital increases, ROA decreases 0.001198. However, for every unit cash conversion efficiency increases, ROA increases 0.648512.

Table 4 shows ten combinations for Ching's Fixed Capital Intensive model, where twelve variables were regressed against ROA. The model includes three variables at 1% significance level and its R-squared is 7.87%.

Table 3: Ching's results and combination matrix – Working Capital Intensive group

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Cash Conversion Efficiency	0.648512*** [0.160731]	0.648526*** [0.160999]	0.648693*** [0.160445]	0.635425*** [0.160624]	0.619337*** [0.159233]	0.597202*** [0.107837]	0.600202*** [0.157112]	0.601854*** [0.159315]
Debt Ratio	-0.132746*** [0.030533]	-0.132663*** [0.030732]	-0.143047*** [0.031868]	-0.150325*** [0.033351]	-0.195587*** [0.037255]	-0.192159*** [0.03132]	-0.191027*** [0.038515]	-0.191502*** [0.038747]
Days of Accounts Receivables	-0.000739*** [0.000180]	-0.000739*** [0.000181]	-0.000742*** [0.00018]	-0.000666*** [0.000202]	-0.000685*** [0.000204]	-0.000684*** [0.00015]	-0.000698*** [0.000206]	-0.000786*** [0.000211]
Days of Inventory	-0.000895*** [0.000170]	-0.000895*** [0.000895]	-0.000894*** [0.000171]	-0.000987*** [0.000177]	-0.001028*** [0.000176]	-0.001089*** [0.000177]	-0.0010982*** [0.000206]	-0.001127*** [0.000213]
Days of Working Capital	-0.001198*** [0.000334]	-0.001198*** [0.000334]	-0.001188*** [0.000333]	-0.001178*** [0.000331]	-0.001131*** [0.00033]	-0.001082*** [0.000217]	-0.001096*** [0.000329]	-0.001099*** [0.000334]
Working Capital Turnover		-0.000000549 [0.00000141]	-0.00000052 [0.00000142]	-0.000000733 [0.00000141]	-0.000000467 [0.00000123]	-0.000000817 [0.0000103]	-0.00000211 [0.00000214]	-0.00000239 [0.00000203]
Current Ratio			-0.003729 [0.003857]	0.00845 [0.008681]	0.006693 [0.008893]	0.005383 [0.011191]	0.00633 [0.009264]	0.007949 [0.010354]
Quick ratio				-0.020423 [0.016616]	-0.027276 [0.017543]	-0.024753 [0.017179]	-0.026128 [0.017905]	-0.029297* [0.020215]
Current Assets/ Total Assets					0.097292*** [0.028278]	0.094235*** [0.029628]	0.100062*** [0.030046]	0.100908*** [0.029976]
Inventory Turnover						-0.000891 [0.001048]	-0.000802 [0.000919]	-0.000768 [0.000921]
LN of Total assets							0.003648 [0.003638]	0.004172 [0.003597]
Receivables Turnover								-0.001157 [0.001519]
Constant	0.193947*** [0.016883143]	0.193935*** [0.020914]	0.206316*** [0.0235]	0.214636*** [0.024354]	0.183546*** [0.027049]	0.194963*** [0.028969]	0.128404* [0.07634]	0.13569* [0.079985]
Observations	340	340	340	340	340	340	340	340
Degrees of freedom	334	333	332	331	330	329	328	327
R-squared	0.267384	0.26739	0.268722	0.271883	0.295276	0.296821	0.2981	0.300017

Adjusted R-squared	0.256417	0.25419	0.253304	0.254286	0.276056	0.275448	0.274561	0.274329
Robust and standard errors in brackets								
*Significant at 10% **Significant at 5% ***Significant at 1%								

Table 4: Ching's results and combination matrix – Fixed Capital Intensive group

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Cash Conversion Efficiency	0.51247 *** [0.176732]	0.41899 ** [0.161949]	0.60457*** [0.172551]	0.60554*** [0.172785]	0.63495*** [0.17488]	0.63678*** [0.181009]	0.67086*** [0.201656]	0.63439*** [0.196601]	0.51783*** [0.16601]	0.50587*** [0.175181]
Days of Inventory	-0.00050 *** [0.000174]	-0.00037** [0.000189]	-0.00058* [0.000297]	-0.00058* [0.0003]	-0.00063** [0.000281]	-0.00061* [0.000288]	-0.00098*** [0.000221]	-0.00111*** [0.000238]	-0.00138*** [0.000262]	-0.00141*** [0.000261]
Days of Working Capital	-0.00106 *** [0.000385]	-0.0009** [0.000377]	-0.00115** [0.000342]	-0.00115*** [0.000343]	-0.00127*** [0.000367]	-0.00127*** [0.000365]	-0.00130*** [0.000416]	-0.00118 [0.000411]	-0.00088** [0.00035]	-0.00087** [0.000361]
Debt Ratio		-0.09211** [0.041477]	-0.07629 [0.051298]	-0.07654 [0.051682]	-0.01946 [0.062844]	-0.01872 [0.065244]	-0.10766 [0.07603]	-0.09599 [0.076101]	-0.0995 [0.073232]	-0.10348 [0.074546]
Days of Acc. Receivables			-0.00050 [0.000441]	-0.00050 [0.000442]	-0.00049 [0.000426]	-0.00050 [0.000459]	-0.00060 [0.000444]	-0.00069 [0.000449]	-0.00071 [0.000435]	-0.00035 [0.000599]
Working Capital Turnover				-0.0000040 [0.0000528]	-0.0000089 [0.000044]	-0.0000093 [0.0000442]	-0.000015 [0.0000646]	-0.00001 [0.0000655]	0.000042 [0.0000668]	0.000050 [0.0000629]
Current Ratio					0.03007** [0.015052]	0.02634 [0.026718]	0.00671 [0.019736]	-0.01473 [0.024682]	0.01661 [0.023084]	0.02165 [0.023621]
Quick ratio						0.00500 [0.03706]	-0.00734 [0.028025]	0.02605 [0.032287]	-0.01970 [0.037175]	-0.02499** [0.037991]
Current Assets / Total Assets							0.33325** [0.14086]	0.30191* [0.152699]	0.37802 [0.160033]	0.39456 [0.165722]
Inventory Turnover								-0.00229 [0.001634]	-0.00111 [0.001511]	-0.00100 [0.001573]
LN of Total assets									0.02850*** [0.009258]	0.02979*** [0.009412]
Receivables Turnover										0.00260 [0.001734]
Constant	0.02742	0.078878***	0.088861***	0.088855***	0.021438	0.020801	0.002753	0.040644	-0.478665**	-0.551152***

	[0.02123]	[0.023776]	[0.020886]	[0.020993]	[0.047111]	[0.049056]	[0.052702]	[0.071607]	[0.19307]	0.200768
Observations	120	120	120	120	120	120	120	120	120	120
Degrees of freedom	116	115	114	113	112	111	110	109	108	107
R-squared	0.07873	0.109654	0.128655	0.128663	0.154815	0.154878	0.252913	0.263668	0.330691	0.342564
Adjusted R-squared	0.054904	0.078686	0.090438	0.082397	0.101991	0.093968	0.191788	0.196114	0.262521	0.268833
Robust and standard errors in brackets										
*Significant at 10% **Significant at 5% ***Significant at 1%										

Table 5: Proposition I results and combination matrix – Fixed Capital Intensive group

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Current Assets / Total Assets	0.370575*** [0.129534]	0.369318*** [0.131136]	0.386403*** [0.130587]	0.390647*** [0.12774]	0.390907*** [0.127597]	0.389531*** [0.141773]	0.395545*** [0.137525]	0.378028*** [0.160033]	0.394561 [0.165722]
LN of Total Assets	0.029887*** [0.00871]	0.029929*** [0.008805]	0.033454*** [0.00994]	0.028102*** [0.008562]	0.028552*** [0.008588]	0.028548*** [0.008651]	0.029601*** [0.008603]	0.028506*** [0.009258]	0.029793*** [0.009412]
Debt Ratio	-0.138832*** [0.046716]	-0.133861*** [0.047658]	-0.120332** [0.053534]	-0.1028** [0.050274]	-0.10014** [0.05059]	-0.098864 [0.067167]	-0.105066 [0.067759]	-0.0995 [0.073232]	-0.103481 [0.074546]
Days of Inventory	-0.000721*** [0.000138]	-0.000776*** [0.000153]	-0.001025*** [0.000259]	-0.001148*** [0.000251]	-0.001157*** [0.00025]	-0.001157*** [0.00025]	-0.001334*** [0.000254]	-0.001385*** [0.000262]	-0.001412*** [0.000261]
Cash Conversion Efficiency		0.020703 [0.041979]	0.1326 [0.08308]	0.559475*** [0.164551]	0.547675*** [0.164348]	0.548007*** [0.164009]	0.530335*** [0.15815]	0.517839*** [0.16601]	0.505878*** [0.175181]
Days of Acc. Receivables			-0.000561 [0.000417]	-0.000758* [0.000401]	-0.000753* [0.000404]	-0.000753* [0.000401]	-0.000677 [0.000411]	-0.000718* [0.000435]	-0.000354 [0.000599]
Days of Working Capital				-0.000951*** [0.000353]	-0.000926*** [0.00035]	-0.000928*** [0.000342]	-0.000927*** [0.000324]	-0.000882** [0.00035]	-0.000871** [0.000361]
Working Capital Turnover					0.0000416 [0.0000681]	0.0000415 [0.0000681]	0.000046 [0.0000656]	0.0000428 [0.0000668]	0.0000502 [0.0000629]
Current Ratio						0.000603 [0.01221]	0.027808* [0.01647]	0.016619 [0.023084]	0.021657 [0.023621]
Quick Ratio							-0.037013 [0.027044]	-0.019705 [0.037175]	-0.024998 [0.037991]
Inventory Turnover								-0.001112 [0.001511]	-0.001005 [0.001573]
Receivables Turnover									0.002608 [0.001734]
Constant	-0.510332*** [0.174067]	-0.513504*** [0.174319]	-0.561705*** [0.189727]	-0.493457*** [0.173082]	-0.501206*** [0.172985]	-0.502143*** [0.167706]	-0.516265*** [0.165878]	-0.478665*** [0.19307]	-0.551152*** [0.200768]
Observations	120	120	120	120	120	120	120	120	120
Degrees of freedom	115	114	113	112	111	110	109	108	107
R-squared	0.261319	0.262016	0.286345	0.324078	0.324907	0.324915	0.328262	0.330691	0.342564
Adjusted R-squared	0.235626	0.229649	0.248452	0.281833	0.276251	0.269681	0.266635	0.262521	0.268833
Robust and standard errors in brackets									

*Significant at 10% **Significant at 5% ***Significant at 1%

Equation (4) shows that for every unit CCE increases ROA increases in 0.512475. For every unit days of inventory increases, ROA decreases 0.000506 and for every unit days of working capital increases, ROA decreases 0.001061. Nevertheless, Ching's original model for Fixed Capital Intensive uses debt ratio and days of account receivables. These variables did not pass the t-test. Proposition I has four variables at 1% significance level and its R-squared is 26.13%. This model was selected from the nine combinations in Table 5, as a result of regressing the same twelve variables, from the previous group, against ROA. Equation (5)

$$\begin{aligned} ROA = & -0.510332 + 0.370575 \frac{CCE}{CCE} + 0.029887 \frac{Ln\ Total\ assets}{Ln\ Total\ assets} - 0.138832 \frac{Debt\ ratio}{Debt\ ratio} - 0.000721 \frac{Days\ of\ inventory}{Days\ of\ inventory} \quad (5) \\ & [0.129534] \quad [0.00871] \quad [0.046716] \quad [0.00138] \end{aligned}$$

shows that for every unit of net current assets/total assets increases, ROA increases in 0.370575 and for every unit Ln Total assets increases, ROA increases 0.029887. In concordance with the results of working capital intensive group, debt ratio and days of inventory have a negative relationship with ROA. For every unit debt ratio increases, ROA decreases in 0.138832. For every unit days of inventory increases, ROA decreases 0.000721.

DISCUSSION

The low volatility of the standard error of the main regressor (CCE), shown in Table 3, demonstrates that there is a correlation between the regressors and the endogenous variable. Concordant with Ching, Novazzi and Gerab, the present study revealed the same relationship between the five variables and the dependent variable ROA, in Working Capital Intensive group. The selected independent variables only explain 26.74%, implying that there should be other control variables explaining the dependent variable. Furthermore, the chosen econometric model, cross sectional only captures a fraction of local companies' reality. We believe that if more yearly data was available, panel data could have been used instead, rendering more accurate results. However, the R-squared obtained in our research is greater than Ching's study, whose model explains only the 18.4% of the dependent variable.

Nevertheless, Fixed Capital Intensive group relationship between the dependent and independent variables of this model differ from Ching's. In contrast to Ching's model, the present study revealed a positive relationship between Cash conversion efficiency and ROA. Ching found a negative relationship between debt ratio and days of inventory. The current research concurs with the behavior of days of inventory. However, debt ratio did not pass the t-test. Unlike Ching, this study found a negative relationship between days of working capital and ROA. Moreover, the statistical test demonstrates that days of account receivables do not explain the dependent variable. Nevertheless, Ching's results revealed a positive relationship between both variables and the dependent variable. In Fixed Capital Intensive group, independent elected variables only explain 7.87% of the ROA. However, Ching's model showed that the combination of these variables explain 16% of the regressand. Table 4 demonstrates that there is a correlation among ROA and the independent variables, since it is observed that there is fluctuation in the standard error of the main regressor (Cash conversion efficiency).

The variables for *Proposition I* were chosen according to the characteristics intrinsically embraced on the Ecuadorian economy and the industrial classification. For instance, sixty companies out of one hundred and twenty, were categorized as Fixed Capital Intensive, belong to the manufacturing industry, where inventory (average time) and size of the company (assets) perform an important role in its operations. These factors are measured through variables, days of inventory and LN of total assets. Furthermore, debt ratio is included within the variables to be measured in this group, due to the relevance it has on Ecuadorian companies; since we have observed relevant levels of indebtedness on local companies. Nevertheless, we believe that current assets ratio engulfs a comprehensive metric to manage current assets and liquidity. According to Shahzad, Fareed and Zulfiqar (2015), this ratio encompasses a prolific measure of working capital as a fraction of total financial resources.

The standard errors of the variables, shown in Table 5, demonstrate that there is a correlation between the dependent variable and the regressors. The direction of the dependent and independent variables of our model in the Fixed Capital Intensive group are in accordance with Shahzad, Fareed and Zulfiqar

(2015), Pervan and Visic (2012) and Ching, Novazzi and Gerab (2011). Specifically, Net current assets/Total assets has a positive relationship with ROA (Shahzad, Fareed, & Zulfiqar, 2015). Furthermore, the results of our model revealed a positive relationship between Ln of Total Assets and the dependent variable, consistent with the results obtained by Pervan and Visic (2012). Proposition I also concurs with Ching's model, showing a negative relationship between debt ratio and days of inventory with ROA. The independent variables selected for Fixed Capital Intensive group explain 26.13% of ROA.

CONCLUSION

Financial literature and research have largely focused on long term investment, but it is currently turning into working capital analysis. It is necessary to discuss working capital drivers and components deeper, in order to develop an appropriate approach for its management, according to the structure and industry of the companies. This research contributes to the study of working capital in Ecuador, to broaden the theoretical framework under which local managers support their financial decisions in companies' daily activities.

Our research exhibits a categorization of industries and companies depending on the level of current assets (Working Capital Intensive and Fixed Capital Intensive group), using a sample of four hundred and sixty companies. Cross-sectional methodology, used for this study, aimed to show the effects of working capital components on profitability, represented by Return on Assets. Our study revealed that the variables from Ching's model, cash conversion efficiency, debt ratio, days of account receivables, days of inventory and days of working capital, explain the 26.74% of ROA, in Working Capital Intensive group. The results showed an interesting behavior of the variables. Even when they worked for the WCI, they do not explain Fixed Capital Intensive group. Ching's model showed a low R-squared and the analysis of the correlation matrix demonstrated multicollinearity. This forced us to explore an enhanced model where other variables better explain the regressand. We conclude that for the Fixed Capital Intensive group, net current assets/total assets, Ln of total assets, days of inventory and debt ratio, better describe the dependent variable, than Ching's model did. Moreover, the results showed the regressors did not have multicollinearity and explained 26.13% of ROA. The results for both groups concur with other authors who used these control variables to describe the regressand. Moreover, the standard errors showed in the combinations matrix demonstrate that there is a correlation among the regressors and the dependent variable.

The study demonstrates that working capital components do not behave in the same way for all companies, even when they belong to the same industry. In this case, the factor that determined this difference was current assets ratio.

REFERENCES

- Belt, B., & Smith, K. V. (1991). Comparison of working capital management practices in Australia and the United States. *Global Finance Journal*, 27-54.
- Brealey, R., Myers, S., & Allen, F. (2008). *Principles of corporate finance*. McGraw-Hill.
- Ching, H. Y., Novazzi, A., & Gerab, F. (2011). Relationship between working capital management and profitability in Brazilian listed companies. *Journal of global business and economics*, 74-86.
- Chiou, J. R., & Cheng, L. (2006). The determinants of working capital policy and operating risk. *Journal of American Academy of Business*, 149-155.
- De Almeida, J., & Eid, W. (2014). Access to finance, working capital management and company value: Evidences from Brazilian companies listed on BM&FBOVESPA. *Journal of Business Research*, 924-934.
- Deloof, D. (2003). Does working capital affects profitability of Belgian firms? *Journal of Business and Finance and Accounting*, 573-587.
- Eljelly, A. (2004). Liquidity-profitability tradeoff: an empirical investigation in an emerging market. *International Journal of Commerce & Management*, 48-61.
- Ganesan, V. (2007). An analysis of working capital management efficiency in telecommunication equipment industry. *Rivier Academic Journal*, 13.

- Genoni, G., & Salvador, L. (2004). Capital de trabajo, gestión de tesorería y valuación de empresas. *Estudios de Administración*, 39-53.
- Gill, A., Biger, N., & Mathur, N. (2010). The relationship between working capital management: Evidence from the United States. *Business and Economics Journal*, 3-10.
- Hall, C. (2002). "Total" Working Capital Management. *AFP Exchange*, 26-32.
- Harris, A. (2005). Working capital management: Difficult but rewarding. *Financial Executive*, 52-53.
- Hassim, S., Kadir, M. A., Lew, Y., & Sim, Y. (2003). Estimation of Minimum Working Capital for Construction Projects in Malaysia. *Journal Of Construction Engineering & Management*, 369-374.
- Howorth, C., & Westhead, P. (2003). The focus of working capital management in UK small firms. *Management and Accounting Research*, 26-35.
- Jayarathnea, T. (2014). Impact of Working capital management on profitability, reshaping management management and economic thinking through integrating eco-friendly and ethical practices. *Proceedings of the 3rd International Conference on Management and Economics*, 26-27.
- Khoury, N., Smith, K., & MacKay, P. (1998). Comparing working capital practices in Canada, the United States and Australia. *Purdue CIBER Working Papers*.
- Lazaridis, I., & Tryfonidis, D. (2006). Relationship between working capital management and profitability of listed companies in the Athens stock exchange. *Journal of Financial Management and Analysis*, 26-35.
- Malik, M. S., & Bukhari, M. (2014). The Impact of Working Capital Management on Corporate Performance: A Study of Firms in Cement, Chemical and Engineering Sectors of Pakistan. *Pakistan Journal of Commerce and Social Sciences*, 134-148.
- Mousavi, Z., & Jari, A. (2012). The Relationship between Working Capital Management and Firm Performance: Evidence from Iran. *International Journal of Humanities and Social Science*, 141-146.
- Nazir, M. S., & Afza, T. (2009). Working Capital Requirements and the Determining Factors in Pakistan. *The Icfai Journal of Applied Finance*, 28-38.
- Ofunya, F. (2015). Relationship between working capital management and profitability of cement companies in Kenya. *Research Journal of Finance and Accounting*, 154-182.
- Palombini, N., & Nakumara, W. (2012). Key factors in working capital management in Brazilian market. *Revista de Administração de Empresas*, 55-69.
- Pervan, M., & Visic, J. (2012). Influence of firm size on its business success. *Croatian operational research review*, 213-223.
- Pimplapure, V. U., & Kulkarni, P. P. (2011). Working Capital Management: Impact of Profitability. *SCMS Journal of Indian Management*, 53-59.
- Pitt, L. (2014). Working capital efficiency and firm profitability - Nigeria and Kenya. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 1670-1675.
- Richards, V., & Laughlin, E. (1980). A Cash Conversion Cycle Approach to Liquidity Analysis. *Financial Management*, 32-38.
- Samiloglu, F., & Dermigunes, K. (2008). The effect of Working Capital Management on Firm Profitability: Evidence from Turkey. *The international Journal of Applied Economics and Finance*, 44-50.

- Sanz, L. J. (2012). *Problemas en la gestión del capital de trabajo en América Latina: Luis J. Sanz*. Obtenido de Luis J. Sanz - INCAE Business School: www.luisjsanz.com/2014/05/09/problemas-en-la-gestion-del-capital-de-trabajo-en-america-latina/
- Shahzad, F., Fareed, Z., & Zulfiqar, B. (2015). Impact of Working Capital Management on Firm's Profitability: A Case Study of Cement Industry of Pakistan. *European Researcher*, 86-93.
- Shin, H.-H., & Soenen, L. (1998). Efficiency of Working Capital Management and Corporate Profitability. *Financial practice and education*, 37-45.
- Singhania, M., Sharma, N., & Rohit, J. Y. (2014). Working capital management and profitability: evidence from Indian manufacturing companies. *Decision*, 313-326.
- Song, Z., Liu, D., & Chen, S. (2012). A Decision Engineering Method to Identify the Competitive Effects of Working Capital: A Neural Network Model. *Systems Engineering Procedia*, 326-333.
- Van Horne, J., & Wachowicz, J. (2004). *Fundamentals of financial Management*. New York: Prentice Hall Publishers.
- Vásquez, M., & Quisiguiña, F. (2016). *Propuesta de manejo de gestión financiera del capital de trabajo en una compañía de seguros, Sweaden S.A.*
- Villacreses, J., & Jara, M. (2011). *Las retenciones en la fuente y su impacto en el capital de trabajo aplicado a las empresas*.

A CHILD WITH DOWN SYNDROME: BURDEN OR BLESSING

Jonas Feliciano C. Domingo, Jean Ryan A. Bernal, Kyle Anikehn A. Bernal,

Carol Ann M. Gonzales, Carl Justine K. Regudo,

Manila Science High School

Taft Avenue Corner Padre Faura St, Ermita, Manila

ABSTRACT

Abstract. Children with Down syndrome are often singled out by the community due to their abnormalities, though they are not given the chance to be seen as who they truly are. Having a child with a genetic disorder, Down syndrome, brings the parents to an unusual journey full of struggles and joy. This qualitative research used case study as its method and an in-depth interview was conducted to gather essential data. The purpose of this study is to give light and inspire communities with the lived experiences of the parents with a child having Down syndrome. Furthermore, this study aims to lead the communities in gaining empathy for every parent with a child having Down syndrome. This study revealed that the child with Down syndrome is neither only a burden nor only a blessing. With both the child's special needs and humble love, the parents see the child as both a burden and a blessing.

Keywords: *Lived Experiences, Parents, Down Syndrome, Case Study*

LIVING WITH BLUR:
Struggles and Hurdles of Alzheimer Patients through the Eyes of their Kin

**Mary Grace V. Buñi, Jherome Gabriel M. Carpila,
Laura Christine C. Katapang, Kyle M. Sante**

Manila Science High School, Manila, Philippines

ABSTRACT

Abstract. In the Philippines, Alzheimer's disease is considered one of the least priorities in relation with the mental disorders prevalent in the country. Knowing this, the researchers attempt to dispel the social stigma assigned to Alzheimer patients in the country and expound the knowledge of society regarding the disease. This phenomenological study ventured the lived experiences of patients with Alzheimer's disease through stories shared by their loved ones. As the patients live with the disease, struggles and hurdles arise as part of their everyday routine which are distinctly observed by their relatives. A Phenomenological approach was used to comprehensively understand the effects of the disease on the lives of the patients through the shared experiences of their kin. In-depth interviews were conducted to the family members of (3) persons with Alzheimer's disease. At the end of the study, the researchers identified several common manifestations between the patients and discovered "acceptance" as a key trait essential for the family to move further even after one of them was already diagnosed.

Key Words: Lived Experiences, Alzheimer's Disease, Alzheimer Patients, Phenomenology

AN EVALUATION OF DISARMAMENT, DEMOBILIZATION AND REINTEGRATION FRAMEWORK OF PRESIDENTIAL AMNESTY PROGRAMME IN NIGER DELTA, NIGERIA

Imoukhuede Benedict Kayode

*Department of Public Administration
Rufus Giwa Polytechnic Owo, Ondo State, Nigeria
E-mail; imoukay@yahoo.com*

ABSTRACT

The activities of oil exploration by the multinational oil-companies for over five decades in the Niger Delta has led to underdevelopment, environmental degradation and thus given rise to militancy, oil pollution, deepening poverty and sundry other challenges in the region. Militancy in the Niger Delta has been having damaging effect on the economy of Nigeria and it has taken its tolls on the accrual from crude oil. In a bid to address this perennial problem, the federal government instituted presidential amnesty programme with its core elements of disarmament, demobilization and reintegration to solve if not all the fall out of militancy in the region. This study adopted Marxist political economy approach as its framework of analysis, it is an approach with an holistic view point on the contradictory nature of relationships that underlie social formation, the social law of distribution and production in the society. This work evaluated the presidential amnesty programme with a view to determining how far its implementation in the Niger Delta. It concluded that the presidential amnesty programme implemented in the Niger Delta just like other previous government's interventionist programmes has not adequately fulfilled its stated objectives due to inherent flaws in the implementation process. The work made recommendations for the creation of more employment opportunities for the millions of jobless youths, feasible poverty reduction scheme and adoption of human security framework that is people- centred in the Niger Delta.

Keywords: *Niger Delta, Crude Oil, Underdevelopment, Militancy, Amnesty, Evaluation.*

INTRODUCTION

The Niger Delta is an oil and gas rich region that is also well endow in bio-diversity and located in the southern part of Nigeria, the region account for about 90% of Nigeria's annual income, thus, revenue from crude oil from the region remains a centrality to Nigerian federation economic survival. Dafinone (2008) laid credence to the strategic economic importance of the region, he posited that; whatever happens in the Niger Delta has a direct impact on the world's energy supply.

In spite of its economic position as the treasure base of Nigeria, the region could be aptly described as environmental degraded, underdeveloped and violence-prone. Thus, in an attempt to break the cycle of violence, economic sabotage and also to protect oil facilities located in the region ,the federal government under the administration of Late Yaraduah Umaru in 2009 decided to implement presidential amnesty programme in the region. The questions arising and which may be explore as background of this study are as follows: Apart from desire to halt militancy, what are the other reasons why the amnesty was adopted? What are the elements of the presidential amnesty programme? What are the objective/targets of each elements?

The presidential amnesty programme was a conflict transformation and management policy that was adopted by the Nigerian government in 2009 as interventionist measure to stop the acts of violence,

insecurity, oil-economic sabotage and militancy been perpetrated by the restive youths in the Niger Delta because all these various acts have crippling effects on the national economic and its survival due to its oil-driven nature.

In addition, the amnesty programme was adopted by the Nigerian government with the aim to address inherent and persistent developmental and environmental challenges in the region since the commencement of oil exploration in Oloibiri in 1958. Also, it was adopted as a socio-economic policy to harness the potentials and boost manpower development of the youths and people of the Niger Delta.

The major elements and the objectives or targets of each element are encompassed within disarmament, demobilization and reintegration (DDR) framework which forms the core of the presidential amnesty programme. Several scholars and organizations have acknowledge the imperative of disarmament, demobilization and reintegration framework as cardinal elements of amnesty. United Nations (2005), Immigration and Refugee Board of Canada (2011), Imorgan (2015), United Nations (2000), Berdal (1996) Humprey and Winsten (2009), Muggah (2009), and Achodo (2015) have all explicitly stated it in their various literatures.

Disarmament was the starting phase and an integral element of the presidential amnesty programme that lasted between 6th August, 2009 till 4th October, 2009. It was an element that had objective of collection, control and disposal of weapons willingly submitted by the ex-militants to the armed forces representatives of the federal government.

Demobilization and rehabilitation phase was another essential element of the presidential amnesty programme that lasted for twelve months. It is an element that had objectives of debriefing, guidance and counseling of ex-militants in order to facilitate and enhance their adoption back into the Nigerian society. Reintegration phase is an element that supposedly marked the concluding aspect of the amnesty programme which was stated to last for a period of five years, that is 2010-2015. Reintegration has targeted objectives which includes acquisition of educational, technical and entrepreneurial skills by the ex-militants, thus, this is to enable the ex-militants fit in socially and economically, be productive and serve as change facilitators in their various oil-producing communities in post-amnesty Niger Delta.

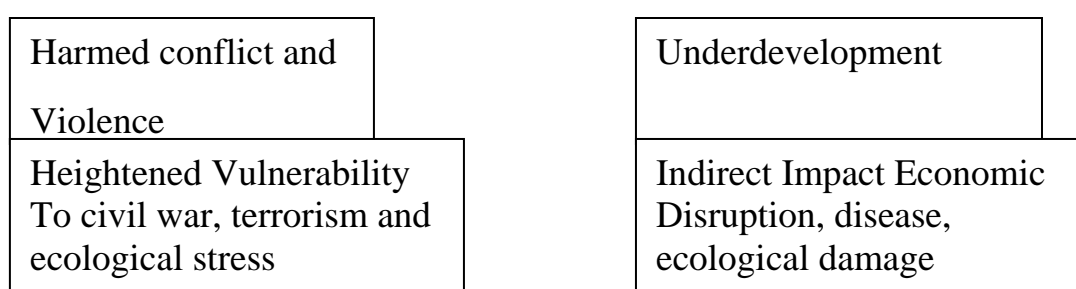
In the course of the discourse, the aforementioned reasons, elements and the objectives of each element would be evaluated vis-à-vis the implementation of amnesty programme in Nigeria. Oil wealth derived from the various oil fields in the Niger Delta has enhanced the prosperity and socio-economic development attained by the Nigerian-state in the last five decades, paradoxically, it has unfavourable

impacts in the well being and the development of the oil-producing communities in the Niger Delta. Several scholars and researchers in the field of political science, peace and conflict studies, sociology and development studies have identified various problems especially underdevelopment, environmental pollution as a result of oil production, militancy, the struggle for resource control and self determination by the people of the Niger Delta. Ikelegbe (2005), Obi (2010), Oluwaniyi (2011).

In addition, the various interventionists programmes embarked upon by the Nigerian state to provide remedy and lasting solutions to the various insecurity, environmental and socio-economic problems confronting the people of the Niger Delta have not provided the expected dividend to the people as a result of corruption, misplaced priority and the inability to generate feedback through effective evaluation of such programmes by the federal government. Thus, without feedback mechanism such programmes could not be properly evaluated for the benefits of the oil-producing communities in the region.

Key and Phillips (2007), explicitly stated that 1.5 million tons of oil has spilled into the Niger Delta over the pass fifty years, making the region one of the five most polluted locations on earth. It is unarguable that exploration of crude oil and gas in commercial quantities has been more of a curse than a blessing to the people of Niger Delta.

Figure 1: Conflict and Underdevelopment: The Vicious Interaction



Sources: Baylis J.S,S and Owens, P. (2008) The Globalization of World Politics: An Introduction to International Relations, Oxford University Press, Oxford.

Objectives of the Study

The study seeks to achieve the following objectives:

- (i) To find out the reasons for setting up of the presidential amnesty programme by the federal government as interventionist policy in the Niger Delta.
- (ii) To assess the impacts of disarmament, demobilization and reintegration elements of the presidential amnesty programme between 2009-2015.
- (iii) To identify the challenges faced by the presidential amnesty programme in the Niger Delta.

Theoretical Framework

The political economy approach by Karl Marx and Friedrich Engels remains a reference point and the classical basis of analyzing the nature of society and politics. According to Marx and Engels (1848), the history of all hitherto existing society is the history of class struggles. In addition, they postulated that human actions and social institutions are economically determined and would serve the basis of the theoretical framework of this research study. It is an approach which is based on historical materialism and takes into consideration of the social relations, class struggle and the relationship between the economy and politics.

Several scholars have further buttressed the Marxian Perspective of the Political economy, Lange (1974), Ihonvbere (1989), Anifowose and Enemuoh (1999), all these scholars take into consideration the interconnection of social relations, class conflict and the organic relationship between the sub-structure (economy) and the superstructure (politics) and concluded that it's the economy which determines the politics.

The pattern of social relations, underdevelopment and agitation for resource control by the people of Niger Delta and the over-centralized and dominant nature of the federal government coupled with the exploitative tendency of the oil-multinational companies in the region can be situated within the political economy analysis.

The political economy approach provides theoretical underpinning of Nigerian state over dependency on oil-driven and rentier economy, oil-related conflicts, militancy and the neglect suffered by the oil-producing communities in the region within the framework of Nigerian federation.

SUMMARY OF PREVIOUS FEDERAL GOVERNMENT INTERVENTIONS IN THE NIGER DELTA

Prior to the implementation of the presidential amnesty programme in 2009 in the Niger Delta, the federal government of Nigeria had earlier implemented various socio-economic, environmental and sustainable interventionist policies in the region as panacea to address the myriads of developmental challenges in the Niger Delta.

Ajibola (2015), and Imoukhuede and Akinkurolere (2011), identified the various development-oriented interventionists efforts in the Niger Delta by successive administrations in Nigeria such as, Willink's Commission of 1958, the 1960 Niger Delta River Basin Development Authorities of 1980, the Oil Mineral Producing Areas Development Commission of 1992, the Niger Delta Development Commission of 2000 and the creation of the Niger Delta Ministry by the federal government in 2009.

It is unarguable that all these previous interventionists programmes by the federal government have failed to allay the fear of domination of the minorities oil producing ethnic groups in the Niger Delta, they were unable to provide lasting solutions to the neglect, underdevelopment, poverty, environmental degradation, violence and militancy in the region. These failures and policy inadequacies could be attributed to insincerity, corruption and superficial nature of such programmes which ultimately in reality do not achieve stated objectives. Also, Okonta (2000), acknowledged that previous attempt at tackling the problems of the Niger Delta region are conciliatory stop-gap measures that address the symptoms of the malady and do not begin to tackle the fundamental demands of resource control and political autonomy for all geo-political stable and prosperous Niger Delta.

Nigeria's Presidential Amnesty Programme in the Niger Delta: 2009 – 2015

Amnesty refers to a pardon for a wrong doing or willingness by government of a nation to overlook and forgive an offender. Bryan (2009), conceptualized amnesty as a pardon extended by the government to a group or class of persons usually for a political offence or as the act of a sovereign power officially forgiving certain classes of persons who are subject to trial but have not yet been convicted.

In an attempt to provide a non-violent counter insurgent policy as a solution to the economic sabotage, bunkering, insecurity, crisis of poverty and underdevelopment in the Niger Delta, Late Musa Yaradua granted sixty days unconditional amnesty period between 6th August to 4th October 2009 to militants who are willing to lay down their arms, eschew militancy and embrace amnesty programme of the federal government.

Ibaba (2011), acknowledge that the United Nations and other similar bodies have applied amnesty as an instrument for achieving sustainable peace. The presidential amnesty programme in Nigeria has its basic goal to contribute to security and stabilization in the Niger Delta through disarmament, rehabilitation and sustainable re-integration of ex-militants as a precondition for medium and long-term development in the region.

The presidential amnesty programme in the Niger Delta was based on disarmament, demobilization and reintegration agenda. Thus, it was patterned along the United Nations conflict transformation programme according to the United Nations (2005), the three key aspect of disarmament, demobilization and reintegration are as follows;

Disarmament: Is the collection, documentation, control and disposal of small arms, ammunition, explosives light and heavy weapons of combatants and often from civilian population;

Demobilization: Is the formal and control discharge of active combatants from armed forces or other armed groups

Reintegration: Is the process by which ex-combatants acquire civilian status and gain sustainable employment and income.

Table 1: Disarmament, Demobilization and Reintegration Agenda of Amnesty Programme in the Niger Delta

Disarmament	Demobilization	Reintegration
Duration: August 6 th – October 4 th , 2009.	Rehabilitation Duration: 6 – 12 months	Duration: Up to 5 years
Key Activities	Key Activities	Key Activities
Collection of Arms and Ammunition, explosives etc.	Ex-militants reports to camp	Knowledge and skills acquisition
Documentation and Biometrics	Verification and Documentation	Financial empowerment
	Transformational training	Micro-credit
	Peace building and conflict resolution	Reconciliation with local community
	Counseling	Conflict resolution framework

Key Activities	Key Activities	Key Activities
	Career guidance	Mechanism
	Wellness assessment	Monitoring and evaluation
	Reintegration classification	Exit of amnesty
	Education and vocational placement	
	Graduation and demobilization	
Key Enablers	Key Enablers	Key Enablers
Disarmament camps	Transformational training centres	Partnering government agencies, NGOs and private organizations
Massive campaign	Rehabilitation camps	Tracking and support framework

Source: Office of the Special Adviser to the President on Niger Delta, www.osapnd.gov.ng/index/ndap.
retrieved on 4th August, 2016.

Table II: Participants Demography of Ex-Militants

SN	STATES	MALE	FEMALE	REGISTERED
1	AkwaIbom	155	8	163
2	Bayelsa	6500	61	6961
3	Cross River	159	1	160
4	Delta	3361	-	3361
5	Edo	450	-	450
6	Imo	297	3	300

SN	STATES	MALE	FEMALE	REGISTERED
8	Rivers	6958	39	6997
9	NDDC	571	19	600
Total		20049	113	20192
7	Ondo	1198	2	1200

Source: Imoukhuede and Akinkulore (2011), Emerging from Global Economic Crisis: Developmental Issues, A Book of Readings, 7th National Conference, The Federal Polytechnic Ilaro, Jombright Publishers, Ilaro with additional data from www.nigerdeltaamnesty.org

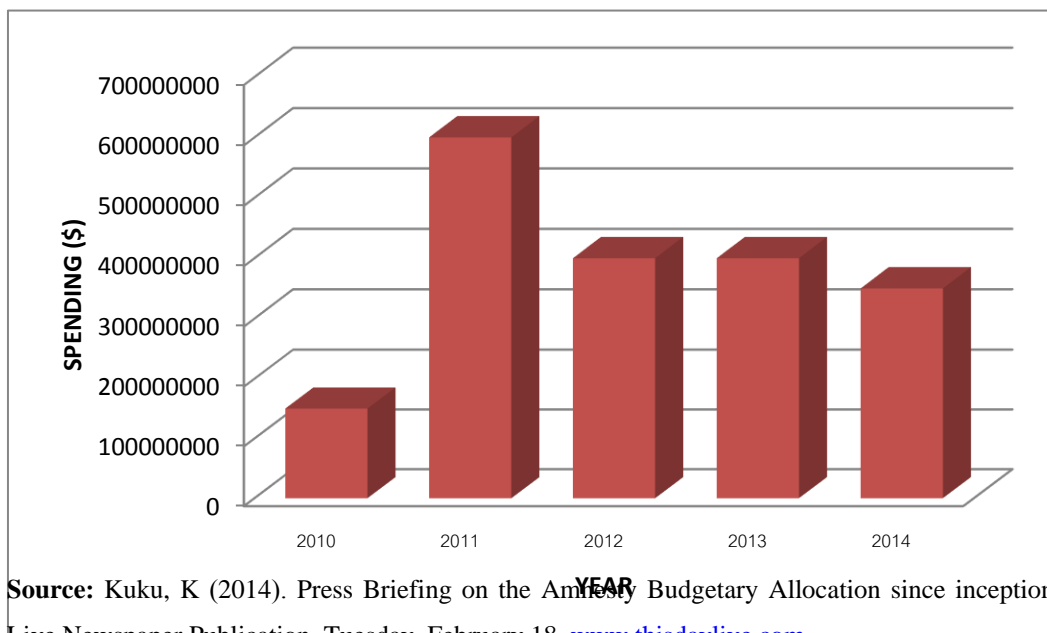
Table III: Ex-Militants Trained in Vocational Skills

SN	SKILLS	NUMBERS
1	Agriculture	239
2	Automobile	207
3	Welding and Fabrication	2204
4	Entrepreneurship	2998
5	Capentry and Plumbing	298
6	Oil drilling and Marine	916
7	Electrical Installation	89
8	Information Communication Technology	273
9	Crane and Heavy Duty Machine	1030
10	Boat Building	299
11	Pipe fitting	250
12	Entertainment	60
13	Others	618
	TOTAL	9192

Source: Ikelegbe and Umokoro (2014).

Retrieved from Imongan (2015). Revisiting the Peace-Building Efforts in Post-Conflict Niger Delta, Nigeria: A Case Study of Amnesty Programme. *Mediterranean Journal of Social Science* Vol. 6 No 6.

Chart I: Nigeria Presidential Amnesty Budgetary Allocation 2010 – 2014



Source: Kuku, K (2014). Press Briefing on the Amnesty Budgetary Allocation since inception. This Day Live Newspaper Publication, Tuesday, February 18. www.thisdaylive.com.

One of the major merits of the presidential amnesty programme is stability in the money accrued from oil and gas as against the conflict-prone and the pre-amnesty period which caused decreased in the revenue. Imongan (2015), and Ojione(2013), agreed that there were series of attacks on oil facilities by militants which brouhht down oil production to 700,000 barrels per day in 2009 but the post-amnesty production level has significantly risen to about 2.6 million barrels per day.

Evaluation of the Presidential Amnesty Programme in the Niger Delta, Nigeria

Evaluation is the major aspect or theme of the research work, it is an attempt to appraise through the systematic and objective assessment of the presidential amnesty programme in the Niger Delta between 2009-2015. United Nations Office on Drugs and Crime, UNODC (2016), defined evaluation as a systematic and objective assessment of on-going or completed project, programme or policy, its design, implementation and results.

Evaluation is highly imperative in nature and it allows for the opportunity to enable the government to get a feedback about the success or failure of the socio-economic programme implemented by the government. Adelabu (2016), acknowledged the imperative of evaluation, according to him; an essential

ingredient in the measurement of a nation's development, it is the ability to get every process evaluated objectively to ensure relevance in terms of content and delivery system.

The presidential amnesty program is unique in nature and a pragmatic effort by the Nigerian government towards conflict transformation through non-violent measure. Ushie (2013), viewed the amnesty programme as a sharp departure from the typical use of state violence to suppress dissent and signified a realization that the Niger Delta crisis required a democratic, participatory solution and not one that legitimized militarization and brutal oppression of impoverished maritime communities. Over twenty thousands of ex-militants that laid down their arms and embraced peace within the sixty days ultimatum of surrendering willingly were given unconditional pardon as freemen under the presidential amnesty programme in the Niger Delta.

In addition, the Nigerian government earmarked for ex-militants amount of sixty five thousand naira monthly for three months of post-amnesty period for their sustenance in order to realize the stated objectives of the presidential amnesty programme in the Niger Delta, the ex-militants were engaged in a DDR Programme, which implies disarmament, demobilization and reintegration. These process were imperative towards debriefing, retraining and reintegration of the repentant militants back to the civil society which they have hitherto turned their back on. Thus, they were major preconditions of addressing socio-economic challenges in the region.

In furtherance of the implementation of the presidential amnesty programme, the ex-militants were also trained in areas of vocational skills such as oil drilling and marine, welding and fabrication, agriculture, plumbing, information communication and technology. Also, some of the ex-militants that were academically inclined were given the opportunity of full schooling through amnesty scholarship in overseas tertiary institutions in South Africa, United Kingdom, Russia, Malaysia, Singapore etc.

In evaluating the implementation of the presidential amnesty programme in Nigeria since its inception in late 2009, the programme has contributed towards relative peace till 2015 in the region. It led to reduction in bombing, kidnapping, destruction of oil facilities in the Niger Delta. Scholars like Ojione (2013), Imongan(2015),agreed that there were series of attacks on oil facilities on oil facilities and installations by militants which drastically brought down oil production to 700,000 barrels in 2009 but the post amnesty production level has significantly risen to about 2.6 million barrels per day.

Thus, the amnesty programme has enhanced stability in oil production in Nigeria.

Anatsui and Fagbemi (2014) further identified the strengths of the amnesty programme in the Niger Delta, the two scholars noted that; the amnesty promoted active listening, assertive communication and affirming environment of dialogue, circulation of illegal weapons was reduced, if not eliminated and also promoted reconciliation between the militants and the offended residents who want peace to reign. Thus, the presidential amnesty programme by its implementation has immensely paved way for relative peace, reduction in the destruction of oil facilities and militancy in the Niger Delta. The presidential amnesty programme allowed room for communication and negotiation among the various stakeholders boosted the hope for a peaceful and prosperous Niger Delta.

However, the presidential amnesty programme in its implementation in the Niger Delta suffered policy inadequacy at addressing holistically the issue of insecurity, environmental and socio-economic challenges confronting the oil producing communities in the Niger Delta.

In addition, the amnesty programme failed to fulfilled its vision statement of a Niger Delta region populated with modern cities with leading edge environmental management practices, economic prosperity, health people and social harmony because the region remains poverty stricken and environmentally degraded.

Several critics were raised against the poor impact of the amnesty programme in the Niger Delta. Oluwatoyin (2011), observed that major critical issues such as the roots of alienation, marginalization, exploitation, corruption, unemployment, poverty, youth and women's issues are still not dealt with and they jeopardize the possibility of future peace, security and development in the Niger Delta region.

The presidential amnesty programme in its approach and implementation was unable to bring all stakeholders on board especially the Movement for the Emancipation of the Niger Delta (MEND) one of the major militant group in the region. This scenario constitutes serious threats to peace and security in the region. Also, it heightened fears that the amnesty programme had only secured temporary peace which may not be enduring in the region.

The presidential amnesty programme in its implementation in the Niger Delta suffered policy inadequacy and was unable to address holistically the challenges of environmental pollution and socio-economic problems confronting the oil producing communities in the Niger Delta.

Several criticisms were raised against the poor implementation of the presidential amnesty programme in the region. Oluwatoyin (2011), observed that major critical issues such as the roots of alienation, marginalization economic exploitation, unemployment, corruption, poverty, youth and women's

issues are still not dealt with and they jeopardize the possibility of future peace, security and development in the Niger Delta region.

Another inherent weakness of the presidential amnesty programme is the fact that it was a top-down approach by the Nigerian government and the militant commanders, while the majority of ex-militant foot soldiers were cut off in the sharing formula of juicy contracts and monetary compensation. This scenario provoked anger among the ex-militant and further pose as threats to peace and security in the Niger Delta.

Another major flaw of the presidential amnesty programme in its implementation is the inability of the representative of the federal government to bring all stakeholders on board especially the movement for the Emancipation of the Niger Delta (MEND) one of the major militant group in the region. This scenario constitutes serious threats to peace and security in the region. This error of omission heightened fears of the people that the amnesty programme had only secured temporary peace which may not be enduring in the Niger Delta.

CONCLUSION

In the course of the study, it is deducible that the problems of militancy, violence, insecurity, underdevelopment and environmental pollution in the Niger Delta arose due to the collective failure and compromise of the Nigerian state, the ruling elites in the oil producing states and the multinational oil companies to address with sincerity the socio-economic challenges in the Niger Delta.

Also, it is obvious that the availability of abundant crude oil and gas and its exploration and production has not been of immense benefits to the people in the Niger Delta and the previous efforts of the federal government at providing interventionist programme has not achieved its stated objective in the region.

Recommendations

In the light of the findings of the study, the following feasible policy options are hereby been recommended as a way forward at complimenting the efforts of the presidential amnesty programme in the Niger Delta. It is imperative that the Nigerian government need to implement and not isolate the recommendations of the Ledum Mitee's Technical Report which was the road map for the presidential amnesty programme. The Ledum Mittee's Technical Report which was submitted in 2009 to the federal government which was holistic in nature and aimed to provide lasting solution to development challenges in the Niger Delta.

In addition, the issue of security of all stakeholders in the region should remain paramount, that is oil-producing communities, people and oil facilities in the region. It is imperative to enhance security, thus

the Nigerian government must implement human security framework in the Niger Delta. This is in tandem with Deepayan cited in Imoukhuede (2013), which posits that human security is people-centered, multidimensional, interconnected and universal in nature.

Efforts should be made to approach diplomatically and bring on board all other aggrieved militants and stakeholders and accommodate them within an extended amnesty programme with a definite time-frame. This approach will make those that are aggrieved to embrace peace and work towards security and development of the Niger Delta.

The presidential amnesty programme must be successively built on to continually address the challenges of governance in the Niger Delta region; Thus, without addressing and providing solutions to the challenges of governance in the region, the federal government of Nigeria would only be at risk of re-escalation of violence, insecurity and militancy in the Niger Delta.

On a final analysis, opportunities for entrepreneurship scheme and employment both at private and public enterprises should be provided for the beneficiaries of the presidential amnesty programme. This approach should be targeted those ex-militants that have gained both vocational empowerment and educational training through the amnesty programme, this is in order to allow their empowerment to have positive linkages and value.

The presidential amnesty programmed must be successively built on to continually address the challenges of governance in the Niger Delta region; Thus, without addressing and providing solutions to the challenges of governance in the region, the federal government of Nigeria would only be at risk of re-escalation of violence, insecurity and militancy in the Niger Delta.

REFERENCES

- Achodo, C. (2015), Nigeria's Amnesty Programme: An Overview of Success, Failures and Lessons. www.leadership.ng/opinions/441746/Nigerias-amnesty-programme-an-overview-of-success-failures-and-lessons. Retrieved on 10th September, 2016
- Adelabu, G. (2016). Nigeria Sports in Dire Need of Change. The Guardian, Vol. 33, No. 13,793, October P.59.
- Ahonsi, B.A (2011). Capacity and Governance Deficits in the Response to the Niger Delta Crisis, Quoted from Oil and Insurgency in the Niger Delta, Managing the Complex Politics of Petro-violence Obi C. and Rustad S.A. (Eds) Zed Books, London.
- Ajibola O.I. (2015). Nigeria's Amnesty Programme. Role of Empowerment in Achieving Peace and Development in Post Conflict Niger Delta Sage Open, July - September 1 – 11. www.sagepub.com/aboutus/openaccess.html. Retrived on 10th September, 2016
- Ake, C. (1981) A Political Economy of Africa, Longman, Lagos, Nigeria.

- Alamieyesegha D.S.P (2004). The Environmental Challenge of Developing the Niger Delta, *Journal of News and Trends in Africa*, Volume 9, Issue No 1, January 15, 2004, p. 1
- Anifowoshe.R, and Enemuof.F.[1999].*Elements of Politics*, Malt House Press Ltd,Lagos, P.43
- Baylis, J, Smith, S and Owens, P (2008). *The Globalization of World Politics: An Introduction to International Relations*, Oxford University Press, Oxford.
- Berdal, M. (1996), *Disarmament and Demobilization after civil wars*. Adelphi Paper No. 30, Oxford, Oxford Univeristy press.
- Bryan A.G. (2009). *Blacks Law Dictionary* (9th ed) St. Paul M.N: West p 79.
- Canada Immigration and Refugee Board of Canada (2011). *Nigeria Government Amnesty Program for Niger Delta Militants 2009-August 2011*, Retrieved from www.refworld.org/docid/507409a192.html.Retrived on 14th September,2016
- Dafinone, D. (2008). *Niger Delta Crisis: The Way Out*. B. Oguntimehin (ed.), Nigerian Compass Published by Western Publishing Company Ltd, Isheri, Nigeria, September 26th, p. 41.
- Dafinone, D. Cited in Imoukhuede B.K et al., (2011). *Analysis of Nigeria Oil Politics and the Socio-economic Implications in Niger Delta*, *Journal of Infotech and General Studies*, Rufus Giwa Polytechnic Owo, Vol 3 No 1.
- Deepayan, B. Cited in Imoukhuede B.K. (2013). *The Challenges of National Security and Socio-economic Development in Nigeria*, Cited in *Book of Proceeding of the 1st Achievers National Conference on Public Policy* Ayodele, A.S., Solarin, I.O. and Adenega, S.A. (Eds.) Achievers University Owo, Nigeria.
- Hommer-Dixon, T. (1991) *On the Threshold: Environmental Changes and Causes of Acute Conflict*, *International* 16: 76 – 116.
- Humprey, M. and Weinstein, J. (2009), *Demobilization and reintegration in Sierra Leone: Assessing progress in security and conflict reconstruction: Dealing with fighters in the aftermath of war*. R. Muggah (ed), New York, Rotledge, PP 47-69.
- Ikelegbe, A. (2005). *The Economy of Conflict in the Oil Rich Niger Delta Region of Nigeria*, *Nordic Journal of African Studies*, 14 (2), 208 – 234.
- Ikelegbe, A. and Umukoro O. (2014). Cited in *Revisiting the Peace-Building Efforts in Post-Conflict Niger Delta, Nigeria: A Case Study of the Amnesty Programme*, *Mediterranean Journal of Social Science* Vol. 6. No 6.
- Imorgan, E.O. (2015), *Amnesty programme in Nigeria: Understanding Justice and equity in the Niger Delta Region*. *Internal Journal of Public Administration and management Research*. Vol. 3, No. 2, pp 39-51.*Revisiting the Peace Building Efforts in Post Conflict Niger Delta ,Nigeria; A Case Study of the Amnesty Programme*. *Mediterranean Journal of Social Science*. Vol 6,No 6,p 3
- Imoukhuede B.K. and Akinlurolere, S.O. (2011). *Post-Amnesty Niger Delta Security Challenges. Implications for Economic Development in Nigeria* cited in *A Book of Readings, 7th National Conference*, Okeage O.O. et al. (Eds.) The federal polytechnic, Ilaro, Ilaro, Nigeria.
- Imoukhuede B.K., Ilepe, J and Akinrolabu R. (2011). *Analysis of Oil Politics and the Socio-economic Implications in Niger Delta*; *Journal of Infotech and General Studies*, Rufus Giwa Polytechnic Owo, Vol. 3, No 1
- Kew, D and Phillips, D.L. (2007). *Seeking Peace in the Niger Delta: Oil, Natural Gas and other vital resources*, *Journal of Public Policy*, New England, 21 (2) 154 – 70.

- Kuku, K. (2014). Press Briefing on the Amnesty Budgetary Allocation since Inception. This Day live newspaper publication Tuesday February 18th. Retrieved from www.thisdaylive.com
- Lange.O.[1974], Political Economy, Vol.1, Pergamon Press and PWN-Polish Scientific Publishers, Warsaw.
- Marx.K, and Engels. F,[1848],Communist Manifesto.1st [Ed],Progress Publishers, Moscow.
- Muggah, R. (2009), The Emperors clothes, in security and post-conflict reconstruction: Dealing with fighters in the aftermath of war. Muggah (Ed), New York, Routledge, pp 1-29
- Ojione, O. C. (2013), The Niger Delta Crisis: A focus on post-Amnesty Militancy and National security. African Journal of International Affairs Vol. 13. No. 1 and 2, pp 1-14.
- Oluwaniyi, O.O. (2011). Post-Amnesty Programme in the Niger Delta: Challenges and Prospects. Conflict of Trends, Volume 4, 46 – 54.
- Oluwatoyin O. (2011). Post-Amnesty Programme in the Niger Delta: Challenges and Prospects www.isndemo-atlasproject.eu Retrieved 16th July, 2016.
- Toutitou, T. C and Ojunta, L. (2016) Sustainability of Post-Amnesty Programme in Niger Delta, Nigeria: Using Public Relations Proactive Strategy International Journal of International Relations, Media and Mass Communication Studies, Vol. 2 No 1. Pp 80-95
- United Nations (2000), Disarmament, Demobilization and Reintegration of Ex-combatants in a peacekeeping principles and Guidelines. Department of Peacekeeping Operations United Nations, New York.
- United Nations Office on Drugs and Crime (2016). What is Evaluation? Sourced from www.unodc.org/unodc/en/evaluation/what-is-evaluation.html. Retrieved September 30th,2016.
- Ushie, V. (2013). Nigeria's Amnesty Programme as a Peace-building Infrastructure: A Silver Bullet. Journal of Peace Building and Development 8:1.30 – 44 Doi: 1080/15423166. 2013.789255.