

ACADEMIC PERFORMANCE STUDENTS OF HIGH-SCHOOL- INTEGRATED TECHNICAL COURSE IN CHEMISTRY BY IFMA - MONTE CASTELO CAMPUS

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ABSTRACT

Federal Law No. 12.411/2012 establishes the quota system for public school students access to federal universities and institutes in Brazil. The Federal Institute of Education, Science and Technology of Maranhao (IFMA) reserves 50% of its spots for students coming from public schools. Academic performance was analyzed for students of IFMA's technical course in chemistry. Students were divided in 6 groups: 4 related to quotas for students from public schools (based on family income and self-declaration as black/brown/indigenous student), 1 for wide competition and 1 for people with disabilities. Overall semester grades for the classes of 2013 (CM-13) and 2014 (CM-14) over the six semesters of the course were taken, for the whole class and also organized in quota groups. Students coming from public schools presented higher averages in four of the six semesters in CM-13. But in CM-14, non-quota students presented better results. The overall average for quota students is lower than non-quota students' by 3.33% in class CM-13 and 4.99% in class CM-14. Thus, for the course studied, the Quota Law promotes the intended corrections, without prejudice to the academic standard.

Keywords: Quota System; Technical Professional Education at High Schools; Affirmative Action Policies.

INTRODUCTION

1.1 Affirmative Actions and Quota Policy

Racial, economic and social discrimination are deeply rooted in Brazilian history, fact that has increasingly mobilized creation of public policies in order to compensate inequalities generated over time, as well as to affirm historical and cultural value of all people. These policies are known as affirmative actions [1].

These actions, according to Oliveira and Carvalho [2], appear as measures aiming to increase representativeness of historically discriminated groups in social spaces. In Brazil, racial quotas are an old demand from social movements, especially black ones [3]. Quotas can be considered as an instrument seeking to redress this inequality of opportunities, since entire generations have been harmed "because of past mistakes never reviewed by our society, but, instead, reinforced by more than a hundred years of denying existence of racism in Brazil" [4].

Since the 90s, these policies began to be discussed in an academic perspective [5]. From this moment forward, there have been both favorable and contrary opinions towards their implementation, "but there haven't been yet any theoretical discussions or confrontations about the concept of affirmative action between authors on both sides" [6]. The first quotas in Brazilian public higher education appeared in the year 2000 [7]. After that, more than half of public universities in Brazil began to adopt some kind of racial or social quota to easy access to their courses, even without existence of a federal law, which would only be created in 2012 [8]. The Law No. 12.711/2012[9], also known as Quota Law, establishes reservation of half the spots in universities and federal institutes for racial and social quotas, and can be considered as a milestone in the struggle against racial and social exclusion in Brazilian educational system [10,11].

Since Selection Process for admission in classes of 2013, IFMA adopts the Quota System in accordance with what it is provided by Law No. 12.711/2012. Therefore, 50% of the spots are allocated to students who have studied in a public school, 50% of which are reserved to candidates with a gross household income equal to or less than 1.5 minimum wage, guaranteeing the percentage of 77% [12] of these spots to self-declared blacks, brown and indigenous students. Besides, 50% of spots for public school graduates are reserved for candidates with a gross household income above 1.5 minimum wage, guaranteeing, again, percentage of 77% [12] of these vacancies to self-declared blacks, browns and indigenous students. IFMA also ensures that 5% of the spots, per course and shift, are allocated to candidates with disabilities [13].

1.2 Monte Castelo Campus in Sao Luis – Maranhao Federal Institute

The starting point for federal network of professional education was the creation, in September 1909, of "Schools of Artificers Apprentices" in all the 19 Brazilian state capitals, and among them was the School of

Artificers of Maranhao, which became the Industrial School of Sao Luis in the 1930s. In the following decade, it then became the Federal Technical School of Sao Luis, and in 1965, Federal Technical School of Maranhao. This then turned into Federal Center of Technological Education of Maranhao - CEFET-MA, in 1989, having its attributions expanded for graduation and postgraduate studies. With Law 11892 [14] sanction on December 29, 2008, it finally became the Federal Institute of Education, Science and Technology of Maranhao - IFMA [15].

IFMA has being through a large expansion ever since, reaching 30 campuses throughout the state of Maranhao, with Monte Castelo Campus in Sao Luis being the oldest and largest.

The main goal of this research is to analyze academic performance of quota and non-quota students from high-school-integrated technical course in chemistry in IFMA Monte Castelo Campus, Sao Luis, who were admitted the first two years after the sanction of Law No. 12.711/2012.

II. METHODS

Technical courses in IFMA Monte Castelo Campus are organized on a semester basis, and they are integrated with High School, being developed in six semesters.

For the classes chosen for this study, 40 spots are offered annually, being 18 of them for open competition and 02 for people with disabilities. The remaining 20 spots are for students from public schools, with 10 of them being for those with a per capita income of up to a minimum and a half wage and the other 10 for students with a per capita income above a minimum and a half wage. In each of these two groups, 8 spots are for self-declared black, brown or indigenous students and 2 for non-self-declaring students.

Of the 40 spots offered for the class of 2013 (CM-13), only 39 students enrolled. Of these, one left still in the first semester, so the number of students whose grades were analyzed in this work was 38. For the class of 2014 (CM-14), there were a total of 37 students enrolled.

The overall semester grades for each of these students were searched in the Academic System of each institution, for each subject and semester studied. Then, the average of these grades was calculated for each student, per group and per class. For this, each class was divided into six groups, according to the quotas in which the students were classified during selection process. Table 1 shows the distribution of students in groups and classes.

Table 1. Students distribution and quota description

GROUPS	DESCRIPTION	NUMBER OF STUDENTS	
		CLASS CM-13	CLASS CM-14
G1	Open competition	19	17
G2	Individuals with disabilities	1*	-
G3	Self-declared BBI, $\leq 1,5$ MW ^(a)	8	8
G4	Self-declared BBI, $> 1,5$ MW ^(b)	8	9
G5	Non-Self-declared BBI, $\leq 1,5$ MW ^(c)	1	2
G6	Self-declared BBI, $> 1,5$ MW ^(d)	2	1

(a)Self-

declared black, brown or indigenous students with income up to 1.5 minimum wage.

(b) Self-declared black, brown or indigenous students with income above 1.5 minimum wage

(c) Non-Self-declared black, brown or indigenous students with income up to 1.5 minimum wage

(d) Non-Self-declared black, brown or indigenous students with income above 1.5 minimum wage

III. RESULTS

Half-yearly averages of each semester for students of class CM-13 students, as a whole and per group, are showed in Table 2.

Table 2. Half-yearly average for CM-13, as a whole and per group

GROUPS	2013-1	2013-2	2014-1	2014-2	2015-1	2015-2	MEDIUM
G1	9,13	8,59	8,68	8,43	8,84	8,57	8,71
G2	8,40	7,60	-	-	-	-	8,00
G3	9,05	8,46	8,70	8,34	8,80	8,55	8,65
G4	8,93	8,18	8,46	8,06	8,86	8,39	8,48
G5	9,30	8,50	8,80	8,80	8,73	8,50	8,77
G6	8,60	6,90	7,80	7,25	8,56	7,65	7,79
CLASS	9,03	8,36	8,59	8,28	8,82	8,48	8,60

From these data, it was observed that G1 obtained a higher score than quota students in two of the six semesters studied, G4 scored the highest in one of the six semesters, and for the course's other three semesters, the highest scored came from G5. Thus, it is evident that quota students obtained higher averages than non-quota ones in four of the six semesters of the course, which was also confirmed in a study by Pinheiro [16], in a similar study for undergraduate courses, in which "for the 15 courses analyzed, cumulative academic overall average in 9 of them was higher for non-quota students against 5 of which the average was higher for quota students. The one course left presented equal average for both quota and non-quota students."

Table 3. Half-yearly average for CM-14, as a whole and per group

	2014-1	2014-2	2015-1	2015-2	2016-1	2016-2	MEDIUM
G1	8,59	8,89	8,66	8,71	8,48	8,32	8,61
G2	-	-	-	-	-	-	-
G3	8,31	8,23	7,82	8,00	8,22	8,14	8,12
G4	8,30	8,45	7,86	8,04	8,15	7,55	8,45
G5	8,08	8,63	7,80	8,25	8,24	8,08	8,18
G6	8,46	8,46	8,68	8,04	7,93	8,05	8,22
CLASS	8,43	8,61	8,25	8,36	8,32	8,09	8,34

Data extracted for class CM-14 originated Table 3, from which it can be observed that non-quota students obtained higher averages than quota ones in all semesters. Also in the literature there are discussions that have detected situations such as this one, as the work of Peixoto et al. [17], which "indicates superior performance of non-quota students". A similar observation, in Fraga's study [18], have come to the conclusion that "quota students have inferior performance among university students".

Observing the overall averages profile for each of the two classes investigated during the course's six semesters, it was noted that there were not big differences between averages of quota students and non-quota ones.

It was also noted that the highest overall average (considering the whole course) of class CM-13 was 8.77 and the lowest 7.79. The difference was only 0.98 point, that is, less than one point (on a scale of zero to ten points). For class CM-14, the highest average was 8.61 and the lowest 8.18, with a difference of only 0.43 point, that is, 4.99%.

Campos, Feres Junior and Daflon [19] observed in a research evaluating the scores of high school graduates, that "the difference between the score of quota and non-quota students tends to be very low, if not insignificant", and this corroborates the results of the research.

Normally, studies in this area investigate higher education students, as was Velloso's study case [20], which concluded, when studying UnB students, that "there was no systematic superiority of non-quota students".

In another study, Oliveira and Carvalho [2], when studying performance of students from Federal University of Sergipe, realized that "although non-quota students generally have higher averages than quota students, the difference between them is really small."

Figure 1 shows overall averages of students over the six semesters of the course (from 2013-1 to 2015-2, for CM-13, and from 2014-1 to 2016-2, for CM-14), by group and per class. From these results, it was observed that the performance of CM-13 pupils coming from a public school declared black, brown or indigenous ones had a final average of 8.48 (G4 - with income above 1.5 minimum wage) and 8.65 (G3 - with income of up to 1.5 minimum wage), which are, respectively, 2.64% and 0.69% lower than the average of non-quota students. For CM-14, the G4 average was 8.45 and G3 was 8.12, which is equivalent to 1.85% and 5.69% lower than the average of non-quota students.

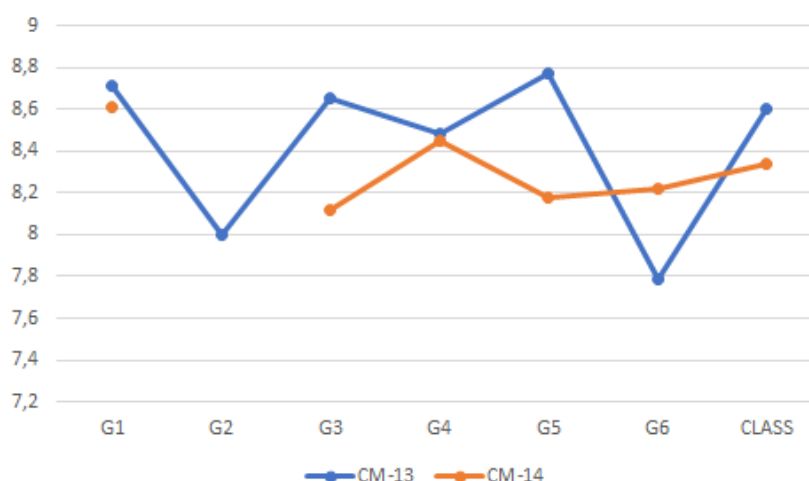


Figure 1. Average grades for all six semesters, per class and by group

This shows an inexpressive difference between averages of quota and non-quota students, except for CM-14 G3, for a study by Velloso [20] considers “as significant all differences between averages that are equal to or greater than 5%, favoring both quota and non-quota students, and as inexpressive differences that are smaller than this percentage”. The difference of 1.6% between the highest average of all, CM-13 G5, in relation to non-quota students, is also considered to be inexpressive. On the other hand, for CM-13, the difference between non-quota students and G6, which presented the lowest average among all groups, was considered expressive according to Velloso [20], since it was 10.56%.

Group oscillations in results from one class to another, whether it’s a quota student group or not, is in agreement with Pierone’s studies [21], who also obtained similar results in his researches on quota and non-quota students’ academic performance analysis in professional education.

In light of this analysis, it is relevant to highlight that this comparison takes into account six groups of students, due to quotas division given by 2012 law, and not only two – quota and non-quota students. When a weighted average is calculated from the overall averages of the four groups that constitute the total spots which must be reserved in accordance with the 2012 Quota Law (G3, G4, G5 and G6), that is, the average for students coming from public schools, values of 8.42 (for CM-13), and 8.28 (for CM-14) were obtained. Comparing these values with the overall averages of non-quota students (8.71 for CM-13 and 8.61 for CM-14), it can be seen that quota students are only 3.33% and 4.76%, respectively, lower compared to non-quota students, which shows that the difference between averages for quota and non-quota students has a non-expressive value - less than 5%.

IV. CONCLUSIONS

Results show the differences found in academic performance at the end of each semester for each one of the two classes studied. For the first class (CM-13) quota students’ grades were higher in four of the six semesters, while for the second class (CM-14), non-quota students were those with the highest averages. In both classes, the difference between grades’ average for quota and non-quota students is not significant.

Organizing the two classes into two large groups, quota and non-quota students, overall average for quota students obtained were 8.42 (CM-13) and 8.28 (CM-14) and for non-quota students they were 8.71 (CM-13) and 8.61 (CM-14), showing the first group obtained an average performance, respectively, of only 3.33% and 4.76% inferior to the overall average for non-quota students.

Thus, there was not a systematic superiority of non-quota students in relation to those who got admitted through quotas. Moreover, we can consider this difference to be inexpressive.

Therefore, considering the results discussed here, everything indicates the Quota Law is successful, without any prejudice to the academic standard of the technical course investigated in this research.

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INFORMATION AND COMMUNICATION TECHNOLOGY AND PROGRAMMED INSTRUCTION FOR THE ATTAINMENT OF EDUCATIONAL GOALS IN NIGERIAN SECONDARY SCHOOLS

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ABSTRACT

Education is a useful instrument to ensure that positive changes take place in the society. In view of this Nigeria came up with a document stating her national goals and educational goals. The educational goals are anchored in information and communication Technology (ICT) for their realization and Programmed learning. In this paper the national goals, and the national educational goals will be highlighted. ICT and programmed learning will be explained briefly. The utilization of the internet facilities and services such as, websites, chatting, electronic mails, gateways of the internet for improving the attainment of educational goals are highlighted. Recommendations for the attainment of the educational goals are also made after the conclusion to work.

Keywords: Information; Communication; Technology; Attainment of Secondary school goals in Nigeria.

INTRODUCTION

Education is a veritable instrument available to many Nation or individual to make a visible and positive change. This change is always measured by the way the individuals or nations wellbeing are maintained. According to Iwu and Ike (2009) Nigeria as a nation came up with a document that stated in clear terms her education mission (goals) statement. This became important because this mission statement will guide the operators and stakeholders in the education sector to enhance the thinking of the nation. This thinking is that educational goals shall be set out in terms of their relevance to the society in line with the global issues. According to Iwu and Ike (2009), this mission statement which is encapsulated in the National Policy on Education is well known, and need not be re-emphasized. These according to FRN (2004) are;

- a. A free and democratic society
- b. A just and egalitarian society
- c. A united, strong and self-reliant nation
- d. A great and dynamic economy, and
- e. A land full of bright opportunities for all citizens

The above national goals constitute the foundation on which the national Development plan is built upon.

Educational Goals in Nigeria:

The National Policy on Education FRN (2004) succinctly outlines the National educational goals as follows:

- a. The inculcation of national consciousness and unity
- b. The inculcation of the right type of values and attitudes for the survival of the individual and the Nigerian society
- c. The training of the mind in the understanding of the world around
- d. The acquisition of appropriate skills and the development of mental, physical, social abilities and competencies as equipment for the individual to have and contribute to the development of the society

The above goals came as a result of the past national experiences and a determined effort to build a united country in which the citizens are persistently conscious of their identity. People often move along state and ethnic lines. There is need therefore for deliberate attempt to inculcate in our students national unity, values and attitudes. Equally important are the trainings of the mind in understanding the world as well as acquisition of skills, abilities and competencies to the development of the society. To actualize these goals, the National Policy on Education anchored their realization to definite innovation. Innovation is a new technique, method or approach effectively designed and developed to ensure effectiveness and efficiency in a given setting. One of the innovations adopted to actualize the educational goals is Information and Communication Technology (ICT). The focus of this paper therefore is to know the extent of achieving educational goals through ICT and programmed instructions in tertiary institutions in Nigeria.

Concept of Information and Communication Technology

Information and communication technology could be seen as a set of technological tools, techniques and resources used to generate, communicate, store and manage information (Ezemoyih, 2015). These technologies include computers, the internet, radio, television and telephone. In recent times, there has been an enormous interest on how internet can best be harnessed and applied to improve the efficiency and effectiveness of education at different levels both formal and informal.

According to Ike and Iwu (2009), information and communication technology is a term used to refer to a broad are of human activities. It is the acquisition, processing, storage and dissemination of vocal, practical, textual and numeric information by a micro-electronic based combination of computing and telecommunication (Nwosu, 2000). The National Policy on information and communication technology FRN (2004) defines ICT as computers, ancillary equipment, software and firmware, hardware and similar procedures, services (including support services) and related resources. ICT is any equipment that is used in the automatic acquisition, storage, manipulation, management, movement or reception of data or information.

ICT is the term also used to describe exciting and innovative ways to provide learners with global access to information, learning and support (Iwu, 2009). Sometimes, ICT is also seen as an umbrella term that includes any communication device or application which includes but not limited to radio, television, cellular phones, computer network, hardware, software satellite systems as well as the various services and applications associated with them. These include video conferencing, audio conferencing, distance learning and multimedia utilization.

According to Ugo and Aniche (2011), ICT is a potentially powerful tool for extending educational opportunities both formal and informal to people in areas that are traditionally deprived of education, and those who cannot afford to enroll in campuses. An important definition of information and communication technology is their ability to transcend space and time. Information and communication technology makes possible asynchronous teaching, that is, a situation where there is time lag between the delivery of instruction and its reception. Bowes (2003) opined that information and communication technology is a panacea for all educational problems. Today's technologies are essential tools for teaching. Information and communication technology remains transformational tools which when adequately applied can help the shift to a learner-centered approach in education. Information and communication technology combines text, sound and colourful animated images to provide authentic and challenging content that absolutely engages the students in the teaching process.

For developing countries like Nigeria, information and communication technology has been potential to access and improving quality of education (Ugo&Aniche, 2011). In Nigeria, the digitalization of Universities and College facilities and Departments, the National Open University of Nigeria (NOUN) remains a breakthrough in the delivery of education. With an information and communication technology (ICT-based process from admitting, through registration to examination) there is no doubt that ICT has proved effective in the delivery of education process, and truly embracing it. In this vein, information and communication technology represents a potentially equalizing strategy for developing.

The idea that teaching can successfully take place through the application of electronic communication facilities between teachers and students is one which had generated sometimes, hope and dismay and other times, excitement and fear. Hope that many more learners can be reached at a more

commitment pace, dismay in that the infrastructure necessary for developing an effective information and communication technology platform is lacking in low income countries like (Olakulehin, 2007)

However, the use of information technologies in the education process have been divided into two broad categories, information and communication technology for education and information and communication technologies in education. Information and communication technology for education connotes the development of information and communication technologies specifically for teaching purpose, while the information and communication technology in education involves the adoption of general components of information and communication technology in the teaching and learning process (Olakulehin, 2007).

Generally, however the educational relevance of computer and other components of information and communication technology cannot be over-emphasised (Nwosu, 2014). Reference can be made to the period when Skinner applied programmed instructions to teaching machines through Brunner's experience with computers in instruction to the current wave of information transmission and exchange via World Wide Web (www). We have seen different applications of information and communication technologies in enhancing cognitive development (Ezemoyih, 2015).

UNESCO (2014) in their classification divided the application of computer and other technologies in education into three broad based categories. These are pedagogy, training and continuity education.

Pedagogy applicability of the information and communication technologies (ICTs) is concerned essentially with the more effective teaching with the various components. Almost all subjects ranging from mathematics (the most structured) to music (the least structured) can be learnt with the help of computers (Olakulehin, 2007). Olakulehin emphasized that pedagogical application of information and communication technologies involve effective teaching with the aids which play complementary role in teaching situation, rather than supplementary to the teacher. Computer is regarded as aid on rather than a replacing device. The pedagogic uses of the computer necessitate the development among teachers as well as students of skills and attitudes related to effective use of information and communication technologies. Also, ICT facilitates teaching to subject areas and teaching at home on one's own and these necessitates the use of new models like modeling, simulation, use of data basics, guided discovery, closed-word exploration.

Information and communication technology is often spoken of in a particular context such as information and communication technology in health, governance, education and other areas. In education therefore, it is the communication facilities and features that variously support teaching, learning and a range of activities. It is imperative to observe that the basic principles of programmed instruction are utilized in ICT are also relevant in teaching and learning for the attainment of educational goals.

Programmed Instruction

Programmed instruction is defined as a process of arranging in a series of small steps designed to lead a student through self-instruction from what he knows to unknown of new and more complex knowledge and principles, with a view of achieving specific operational defined objectives (Chauhan in Ike & Iwu, 2009). It is an educational technique characterized by self-placed, self-administered instruction, presented in logical sequence and with much repetition of concepts. The theoretical basis for programming instruction was provided by behavioural psychologists as B.F. Skinner and J.A. McClelland (Adamu, 2001).

Nwafor in Iwu and Ike (2009) observed that Skinner developed a list of instructions guiding a learner to learn and he called it programmed instruction. His law of effect later became the founding principle of programmed instruction- immediate reinforcement. He foresaw the innovations in one of his writing in 1912.

If by miracle of mechanical ingenuity, a book could be so arranged that only to him who had done what was directed on [page one would page two becomes visible. Much of that now requires personal instruction could manage by prime books be given out in loose sheets a page or so at a time and books, arranged so that the students only suffer if he misuses them, should be worked in many subjects.

Basic Principles of Programming

The principles of programming are relevant to the teaching learning and attainment of educational goals (Okwo & Ike in Ike & Iwu, 2009). Some of these principles are mandatory. They include

1. **Principles of specific objectives:** The principles of specific objectives emphasized the audience, the behavior in an observable term, the condition under which the members of the audiences are expected to function and the degree or level of acceptance (ABCD of specific objectives).
2. **Principles of sequencing:** The principles of sequencing stressed that the learning experiences for the learner should be arranged in logical order.
3. **Principles of error rate:** The principle of error rate ensures that learning experiences are so organized that learners make less mistakes as he/she climbs the intellectual ladder. According to Ike and Iwu (2009), behavioural psychologists especially Skinner suggested the use of different types of prompting techniques to ensure that students get the right answer. In this process, positive reinforcement is recommended. It is important to observe that Crowther in Ike and Iwu (2009) built his programmes on students' error. He used their errors as indication of areas of weakness and that should be remedied. However, research evidence has shown no significant correlation between performance and the number of errors, yet according to Nwafor in Ike and Iwu (2009) others have proved that making errors can enhance learning.
4. **Entry Behaviour:** The principle of entry behavior suggests that new learning experiences should be built on the experience the learners entering the learning environment with.
5. **Self-placing:** The principle of self-placing allows each learner to proceed at his/her own rate. However, recent development preferred group-placed to self-placed instruction. The group should not be more than ten (10) for it to be meaningful.
6. **Responding:** The principle of responding demands activity. Learning is activated through experiences and what a learner does is what he/she learns.
7. **Principles of immediate feedback:** The principles of immediate feedback reinforce the learner. Learners look forward to it in a well-organized learning environment. However, delayed and intermittent feedback can be accepted.
8. **Principles of empirical and continuous testing:** The principle of empirical and continuous testing is necessary to ensure that the objectives of programmes are maintained. Learners on any type of programme therefore are continuously tested. This provides data for diagnostic purposes.
9. **Principle of small step:** The principle of small step is ensuring that learners do things that are responsible at a particular age or level. The success in each step will be instrumental to the next step. This in a way serves as reinforcement.

Consequence on the above principles of programming, students in Nigerian secondary schools who learn instructional content using principles as enumerated above should be in a position to attain educational goals by:

1. Identifying his or her bearing in any situation in life.
2. Achieving self-reliance and rationalizing issues for the political economy of the nation.
3. Improving on skill acquisition and developing new ones in a challenging environment.
4. Developing mentally and be competent in any social environment
5. Functioning as a good Nigerian in any culture he or she may be found
6. Solving any National unity of the nation.
7. Accepting to render services and free movement to any part of the country.

Utilization of ICT Services for the Attainment of Educational Goals

Some of the ways by which information and communication technology can be utilized to attain national educational goals include:

1. Internet: Internet is an aspect of information and communication technology commonly used by people in all aspects of human teaching, learning and everyday transactions. Internet is developed from two different words – interconnection and network (Ike & Iwu, 2009). According to them, this means that ‘‘Inter’’ is a short form of interconnection and ‘‘Net’’ a short form of network, which gives the acronym – internet. Internet therefore is a global collection of many types of computer networks. The internet is the largest store house for information. With its effective use, the educational goals can be achieved, it is a fact that millions of Nigerians connect (log on) to the internet daily for several purposes.

The internet has made such a difference in our society that it is difficult to remember when we did not depend on it for communication, instruction and entertainment. This is so much to learn about the uses of the internet in education that many educators find it difficult to know where to begin.

Most people think of the internet as synonymous with the World Wide Web (W.W.W), however the later is really the subject of the former, the internet system. The World Wide Web is an internet service that links sites all over the world through hypertext documents. By bringing up hypertext or web page document in a programme called a web browser, one can click on text or graphics linked to other pages in other sites.

According to Ike and Iwu (2009), connection to internet has become a symbol of technology's power to shape our lives. A major advantage of the internet is the ubiquitous, comprehensive nature of its information and services. Once connected, educators and students can exchange information among themselves and with others anywhere in the country. They can use it to locate information virtually from any aspect of national education goals. A person or site with the desired information need only to be connected to the internet and willing to provide listings of available resources.

Internet Services Available

A.Availability of information: lots of reports and information services are available which makes it very easy to read national issues that inculcate national unity. For example the establishment of various websites in the country, students browse often to get results (JAMB, WAEC, NECO) as people of the same nation. Also the development of citizenship education curriculum can be programmed and uploaded in the appropriate website. The programmed instruction would kindle the love, awareness and appreciation of the young people of their motherland, Nigeria in a deliberate rather than in an accidental manner.

B.National Contact: National contact can be maintained on accessing the internet. Today unity schools and the National Youth Service Scheme are common exchange of information and educational materials through web is possible. Students or members of NYSC can identify a lot of friends using internet services.

C.Electronic Mail (e-mail): Electronic mail can be used to send or receive messages in and from friends in Nigeria to inculcate the right type of value and attitude for the survival of the individual and the Nigerian society. The value system of a people can be said to be the set of approved likes and dislikes, as vocalized or as seen in their behavior, their speaking, action and thought. To show the Nigerian value system. Internet is always available to ensure the attainment of these educational goals. For instance, developing on the situation, an e-mail can be sent to a wife. "A husband is the crown of his wife". "A good name is better than silver and gold". These statements are value oriented. They are able to inform and educate everyone.

D. Training of the mind in understanding the world: students can benefit from the gains of the internet information on new techniques, methods of doing new things, as painting, planning, teaching and other fields of life. It is used for commercial and business opportunities. Internet helps to know about whether forecast for planning and to get information about different countries as regards to their history and general information. Students can enroll in international/distance learning.

E.Acquisition of skills, abilities and competencies: internet is a centre for research for students and teachers alike. It makes it possible to acquire skills to transfer formatted text and unformatted texts such as graphics, audios and videos that came in different formats, costly and time consuming.

F.Chat Rooms: chat rooms are internet locations that allow live real time communication between two or more users.

Challenges on the use of Information and Communication Technology (ICT) facilities

Our educational institutions are populated by youths. These youths are the adults of tomorrow. Although we have shown the place of internet facilities in attainment of educational goals, today our students have unhindered access to internet. At any given moment, millions of our students are online at least with their cell phones. In Canada nearly half of all youths with cell phones can access the internet with them (Iwu, 2005). Let's consider some of the online activities that many students are attracted to and their potential dangers.

i.E-mail: This is a fast and in-expensive way to correspond to any one electronically in a written form. Most often unsolicited messages called spam can be found in the box. Sometimes they contain suggestive or obscene contents.

ii. **Websites:** millions of sites are now available in the cyber space for students to do a lot of activities such as to shop, to research, download games and music. However, unscrupulous individuals have uploaded morally unacceptable pages for unwary to stumble upon. In the United States of America, for example, 90 percent of youths surveyed between the ages of 8 and 16 confirmed that they had unintentionally encountered pornography (Awake, 2008). The web is now a training site for team gambling. Some sites teach how to unleash terror, produce bombs and other activities injurious to good human relations.

iii. **Chat Rooms:** these are electronic spaces for live text conversations on a topic of interest. Dangerous individuals frequent chat rooms with the interest to lure students into some unacceptable behavior.

iv. **Instant messages:** this is live text conversation between two or more individuals. Here the users select a cyber-friend from contact list. This activity can be distracting. It may not help serious minded students.

v. **Blogs:** this is online diaries. Blogging give students the chance to write about their thoughts, passions and activities, space for readers to comment are provided. Leaving out information about oneself to the public without asking whether it is unethical. Blogs can harm reputations. Some employers consult applicant's blog when considering appointment to any position.

CONCLUSION

FRN (2004) in the National Policy on Education stated clearly the national educational goals. There is need to map out strategies for ensuring that these lofty goals are achieved, information and communication technology and programmed learning are innovative in the attainment of these educational goals if their potentialities are properly harnessed. The roles which ICT and programmed learning can play to ensure that the educational goals are attained are no longer in doubt. The following recommendations are made to further facilitate the attainment of the educational goals using ICT and programmed learning knowledge and facilities.

RECOMMENDATIONS

1. Teachers are responsible for inculcating these educational goals in the school system. Only experienced professional teachers should be allowed to teach in the school system.
2. Every experienced professional teacher should be computer literate.
3. Programmed learning encourages individualized instruction which in turn instills self-confidence encourages self-reliance which is emphasized by the national educational goal.
4. Every school should have computer rooms specifically designed for instruction.
5. Every school should be connected to the internet as this may enable students/pupils not only to download necessary information but also to chat with their contemporaries in other parts of the world.
6. Computer engineers should be employed in each school to maintain the available computers and other internet facilities.
7. Parents and teachers should monitor the use of the internet facilities by the students. It is now discovered that most students go to the internet not to download the needed concepts but to:
 - i. Download pornographic pictures, cultic practices, dangerous actions, films on robbery and killing.
 - ii. Chat with foreign friends on irrelevant topics.
 - iii. Use the e-mail for sending love letters.

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THE SPOKEN LANGUAGE AS A TOOL FOR AREA CALCULATIONS OF COMPLEX SHAPES-COMBINATIONS OF SQUARES AND CIRCLES

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ABSTRACT

Creativity is a dynamic, growing and developing process whereby we take the existing condition, re-shape it and form new connections in order to solve a certain problem or to promote and upgrade an existing situation. Fostering creative ability is a prerequisite in a rapidly changing world and in a dynamic education system of both teachers and learners. A high creative ability will assist in improving the teaching and in enhancing the level of academic attainments.

The actual need for creativity exists wherever there is a real need for a new idea. Most mathematics teachers acknowledge the importance of their pupils' development. Both the major part of the curriculum and the pedagogical approaches at school hardly allow pupils to encounter the open facet of mathematics, avoiding opportunities to present to the pupils open problems. Geometry and especially the Euclidean geometry evokes academic situations which facilitate encouragement and development of creative thinking. One of the goals of geometry studies at elementary school is fostering geometrical insight.

This ability comprises, among others, an ability to explore the shapes themselves, their properties and interrelations. In addition to areas and circumferences calculation assignments, elementary school pupils should cope with assignments which require development of thinking and understanding, allow development of visual and spatial perception as well as in-depth inquiry of basic and complex shapes.

A good way of increasing pupils' learning motivation is a studying environment which allows experiential learning. Thus, learning is done in an active rather than passive manner. The assignments in this paper enable pupils to construct knowledge, perform an analysis and synthesis, be creative in order to present the way of thinking in addition to the way of arithmetic calculation as well as to draw conclusions.

At school, most lessons are dedicated to knowledge, understanding and some application. However today, following the new reforms, verbalisation of thinking is nurtured in order to develop the ability to think which comprises elements of creative thinking. This is a key principle in explicit teaching of meta-cognition and all its components. Most studies show that therapy by meta-cognitive approaches improves not only learners' ways of thinking but also their attainments.

The principle of the spoken language advocates the importance of social interactions and uses of the spoken language as a "tool" for attributing a meaning to knowledge and developing the thinking ability. Verbalisation of the thinking should be implemented, orally or in writing, in every appropriate opportunity. During lessons in class verbalisation of thinking can be used orally by thinking aloud and creating a language of thinking which is shared and common. This can be done by the teachers' verbalisation in front of the pupils (modeling) and by requesting the pupils to verbalise their thinking within the framework of directed class/group discussions.

This paper aims to develop and enhance competences of area and circumference calculations while applying cognitive abilities. The combination of two familiar basic shapes – a square and a circle/sphere – leads to the formation of complex shapes which can be decomposed in various ways.

Parallel to the learning goals of enhancing abilities of area and circumference calculations, this paper discusses additional competences which can promote the decomposition and composition skills of the basic and complex shapes as well as the learners' ability to form new shapes following the activities and the acquired knowledge. Moreover, the assignments presented below develop pupils' visual perception and their ability to calculate the area and circumference of a new geometrical shape obtained from the integration and synthesis of the basis geometrical shapes. This ability develops skills of identification and understanding the meaning of the missing part and its completion to a whole, based on the area and circumference of the basic geometrical shapes familiar to the pupils. Activity of this type facilitates individual learning and collaborative learning. Individual learning consists of assignments which are personal rather than collective and therefore they

stimulate a personalised and independent process of thinking and learning. Collaborative learning transpires when teachers divide the pupils into groups (preferably small groups of two or three members) by taking into consideration various features (e.g. mathematical abilities, social skills). When the groups are heterogeneous, the pupils can mutually contribute to and benefit from one another according to their strong and weak points. Thus, for example, a pupils who are endowed with better capabilities in algebra can be paired with a pupils whose capabilities in geometry are higher.

The following activities allow the structuring of knowledge. The shape sequence is given so that from one complex shape to another learners can draw conclusions and achieve high levels of understanding. The complex shapes are organised in a certain sequence which enables implementation and application of previous ideas for the purpose of consolidating ideas and generalisations about new situations. Decomposing the complex shape into fundamental elements exposes and clarifies the relationship between parts of the complex shape. Learners' abilities to understanding, decompose and compose the shapes into new shapes or to create a completely new sequence of assignments, develop their visual perception and creativity.

INFLUENCE OF COGNITIVE CONFLICT ON MATHEMATICAL WORD PROBLEM SOLVING

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ABSTRACT

This study¹ engages in the development of in-service teachers and pre-service teachers' conceptions regarding the process of modeling and the meaning thereof in solving word problems in general and problems of ratio in particular. The idea for the study was conceived following a discussion between the researcher and the supervisor of this study. The discussion was about the answers of a learner who had solved a problem from his textbook whereby it was apparently appropriate to implement the ratio model. The student presented several different possible solutions to the problem. However, he hesitated as to their mathematical status, knowing his teachers' opinion about the compatibility of the model in a situation similar to the one described in the problem. The process by which the models and mathematical tools are adapted to various situations is referred to as the process of modeling. Teachers play an important role in the building of their learners' understanding of the modeling process. For that purpose a sequence of teaching was designed in this study, including word problems, cognitive conflict as well as interviews with experts. The interviews aimed to enhance the understanding of in-service teachers and pre-service teachers regarding the essence of the relation between a situation described in a word problem and the mathematical model which is appropriate for its .

Research question

The over-arching research question was: Will the implementation of a planned sequence of teaching generate a change of in-service teachers and pre-service teachers' conceptions of the role of mathematics and the meaning of adapting a mathematical model to the solution of word problems (a modeling process)? This study was conducted within the framework of two training workshops, one for in-service teachers and the other for pre-service teachers. The study consisted of three stages: the initial stage, during which the participants solved the first seven assignments; the intervention stage, whereby they solved an assignment which presented a cognitive conflict and aimed to raise awareness of modeling; and the final stage, in which they solved nine additional assignments. The last stage was designed to check whether any changes had transpired in the participants' conceptions following the sequence of teaching presented to them and mainly following the intervention stage. The sequence of assignments dealt with four topics associated with problem solving: reality considerations, distinction between problem types, mathematical status of solutions and conception of the roles of mathematics. The solution of the assignments consisted of various activities, among them individual solution of problems, reference to different solutions, problem categorization, comparison of the problems in order to find the similarity and differentiation between them, reference to experts' interviews and discussions planned specially for underscoring certain properties of the problems. The purpose of the activities was to generate a change in the participants' conceptions through the cognitive conflict and the entire process. Finally, additional assignments were given in order to make sure that the teachers had indeed undergone some change.

The research findings illustrate that an improvement has transpired among the in-service teachers and pre-service teachers with regard to *reality considerations*. The intervention program improved and enhanced the ability to distinguish between the problem types. However, this improvement was more extensive among the pre-service teachers than among the in-service teachers.

Furthermore, the research findings indicate a considerable improvement in the index of mathematical status of the various problem solutions among the two participant groups.

¹ The study was conducted with the support of ISF – Israeli Science Foundation (No. 59/06).

In the two research groups an improvement transpired in the conception of the roles of mathematics. This improvement expressed the final outcome of the three previous stages, namely reference to reality considerations, distinction between problem types and determination of the mathematical status of the solutions. That is, this stage comprises all the components of multi-dimensional meta-cognitive thinking. The contribution of this study resides in the examination and implementation of an intervention program which encompasses a cognitive conflict. The findings illustrate that the conflict and the discussion thereof facilitate improvement of the meta-cognitive mathematical thinking of in-service teachers and pre-service teachers.

MATHEMATICS STUDIES IN MULTICULTURAL CLASSROOMS

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ABSTRACT

The 21st century is characterized by population migration from country to country due to economic and political reasons. These are the main reasons which increased our awareness of the issue of teaching and learning not in learners' mother tongue. The number of studies related to learning in two language has increasingly grown recently. They have been conducted in different places and different contexts both among young and adult learner populations (Essien, 2010; Moschkovich, 2002). Another challenging layer was attributed to the issue of two-language studies when mathematics is concerned since in fact mathematics constitutes a third language. Hence, it becomes necessary to identify the difficulties and way of coping when one simultaneously learns in three languages.

Israel as an immigration country has been coping for the last 70 years with immigration waves from different countries, cultures and languages. Students in Israel's multicultural colleges are learning all the subjects in Hebrew although it is not the mother tongue of some of them.. Learning in a language which is not one's mother tongue naturally entails another difficulty beyond the other prevalent ones. The problem becomes even more complicated in the case of mathematics which is another language in itself. During lectures the students face the need to shift from one language to another in a very short period of time in order to understand the learnt material. That is, shifting from Hebrew to one's mother tongue, then to mathematical language and so on and so forth.

The research participants of this study were 47 mathematics pre-service teachers [hereafter – "students"] learning in the mathematics department of two colleges of education. Their mother tongue differed from the teaching language of the mathematics lecturer. The students' attitudes towards mathematics studies and the difficulties they encountered were explored by means of a questionnaire. The research findings illustrated that this student population found the studies difficult and that there was a direct relation between their level of mastery of the lecturer's teaching language and the two types of problems with which they had to deal. The students found it difficult to understand the lecturer when he spoke rapidly. They indicated that consequently that during the lectures they tended to sit next to students whose mother tongue was equal to that of the lecturer. Moreover, they used to translate the learning material into their mother tongue, particularly before the exams. Due to the differences between the students' mother tongue and the teaching language in class, the students had difficulties in the didactic courses, writing lesson plans and formulating mathematical terms in an accurate manner. The findings clearly indicate the personal and mathematical hardships which the students are facing. Pre-service teachers in mixed classes in which learners speak different mother tongues have the responsibility to try finding ways to help them with this problem.

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WORKPLACE BULLYING IN SCHOOLS: A SOCIO-CULTURAL PERSPECTIVE

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ABSTRACT

Little has been studied about workplace bullying within schools. Studies suggest that the perpetrators of workplace bullying in schools are predominantly school principals. Using findings from South African and international studies on workplace bullying within schools, this paper will first and foremost explore the bullying of teachers by their principals. Attention will also be given to the bullying of teachers by colleagues and pupils. Drawing upon Bronfenbrenner's (2005) ecological theory and set within the South African education system, this paper aims to shed light on the impact of the complex, multifaceted interplay between micro-, meso-, exo- and macro systems on the prevalence of workplace bullying in schools. Whilst most researchers focus on the micro- and meso systems, I will focus on the socio-cultural antecedents (causes of bullying) and the impacts/outcomes thereof on individuals, schools and society at large. I will argue that, among other things, the lack of moral fibre and toxicity among political, administrative, economic and education leaders, cultural differences, an overemphasis of the human right of pupils at the cost of teachers' right to teach in a safe environment be held responsible for workplace bullying in (some) South African schools. The complexity of the reasons for workplace bullying and inadequate legislation on workplace bullying in some countries, including South Africa, hinder simple solutions to the problem. I will offer some general guidelines on how to address the bullying of teachers by their principals, colleagues and pupils.

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

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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.

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.

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.

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.

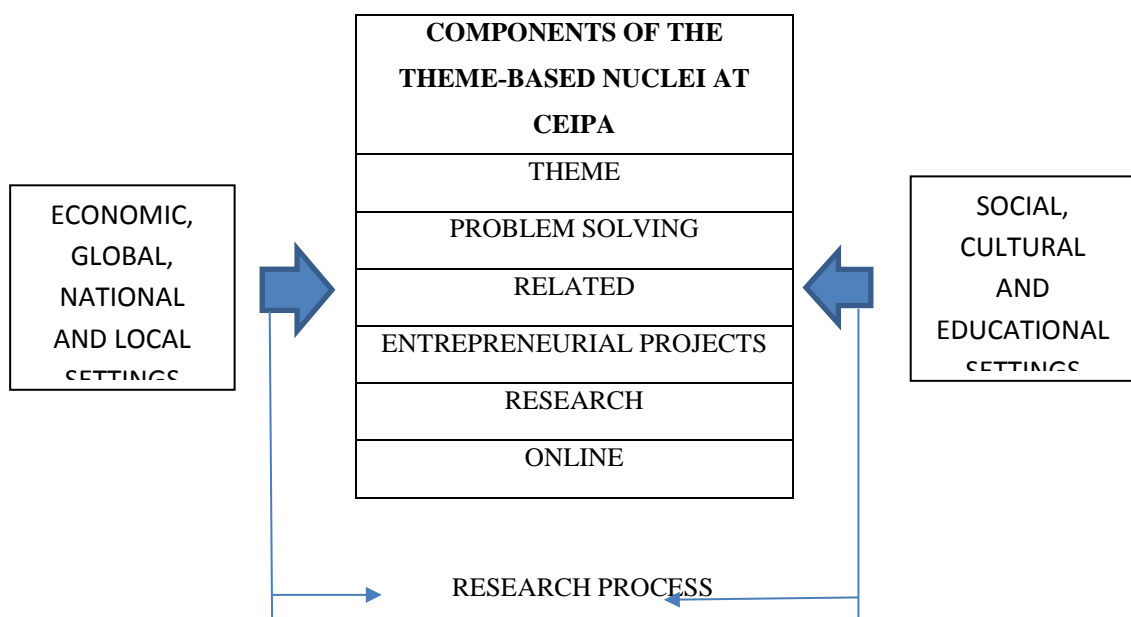


Figure 1. The CEIPA educational model showing the process for student learning and different elements involved in the process.

Given this unique background at CEIPA, this paper focuses on the process of the alignment of the AACBS 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.

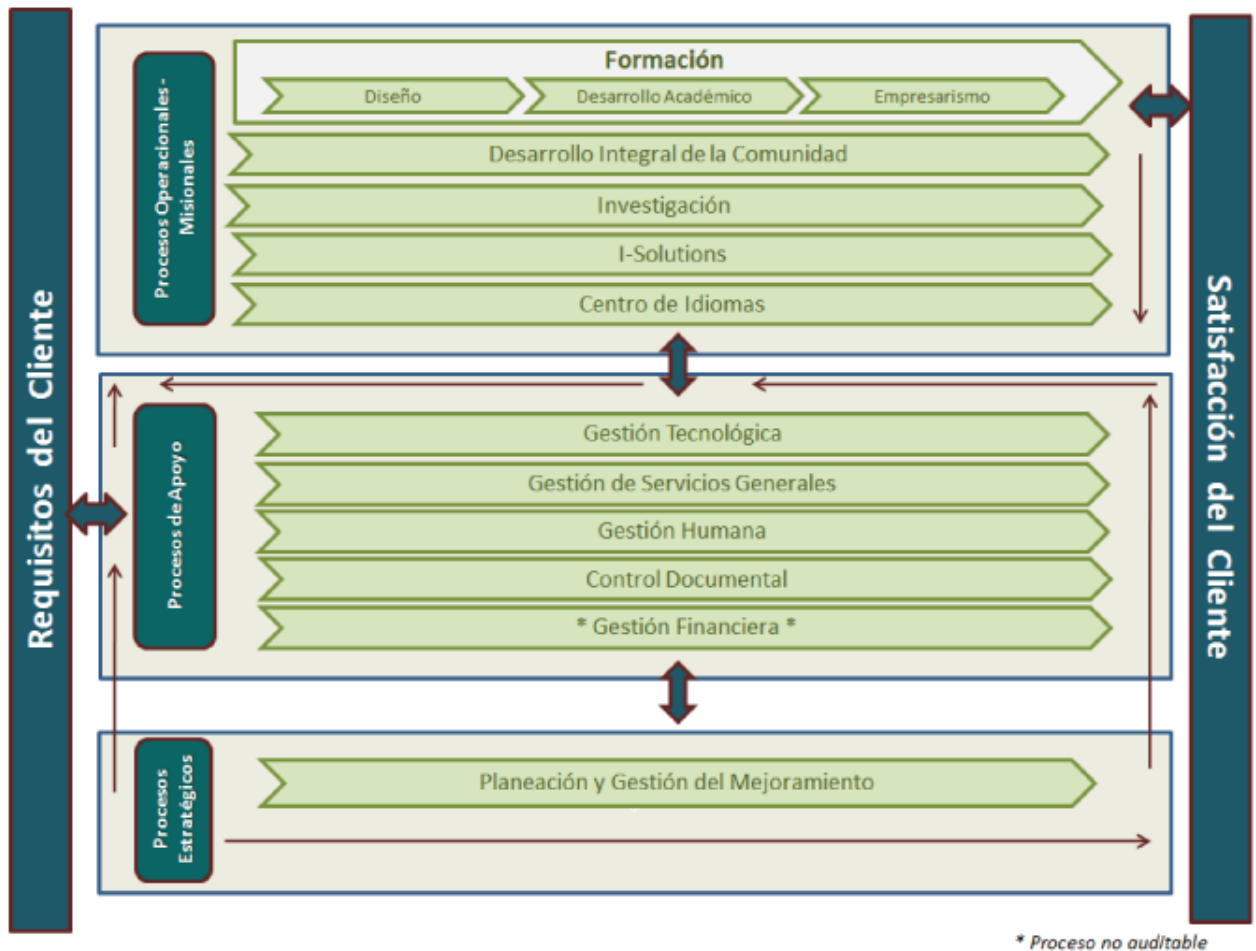


Fig 2. Matrix showing the various process and areas involved in CEIPA administration, starting with the mission and vision, formation, supporting activities and Quality improvement and customer satisfaction.

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 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.

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

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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 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

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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.

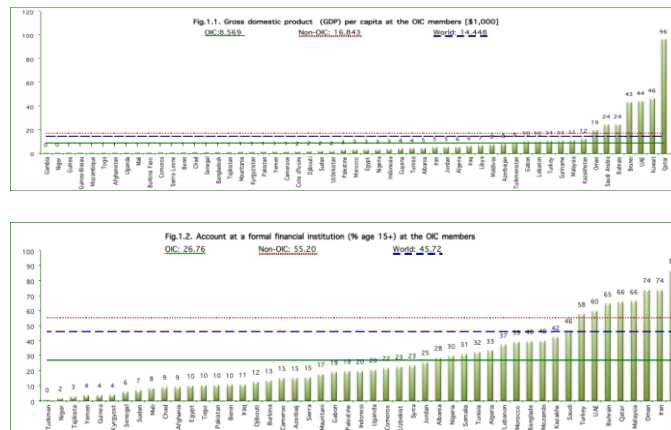


Fig. 1. Economic And Financial Development In The Islamic World – The GDP Per Capita & Diffusion Of Financial Services At The OIC Members

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.

and relative terms. The countries with more developed financial systems both in terms of depth and breadth tend to have higher growth rates, alleviate poverty, and mitigate income inequality faster.

If examined from a fine angle, the excluded represent forgone opportunities to expand the economic pie and individual slices for everyone, including the included. So, what can be done to broaden access to financial services and raise opportunities for all in the Islamic world? Before answering this vital question and outlining policy prescriptions, one first should ask another vital question. What are the reasons for the financial exclusion?

We need to remember that *use* of financial services is distinct from *access* to financial services. Non-users of formal financial services are either voluntarily or involuntarily excluded. Some people may opt out using such services voluntarily although they have no access issues. Voluntarily excluded people may choose not to use financial services for cultural or religious reasons or simply they may refuse to use them due to lack of need or demand. On the other hand, some people are involuntarily excluded; i.e., they wish to use financial services but they cannot access them for various reasons.

Some people are screened out by banks because they do not qualify due to high risk or insufficient income. In some extreme cases, people are refused by lenders for no other reason than their ethnic background, gender, religion or age. Sometimes, financial institutions may lack adequate transaction technology or infrastructure to accommodate the people at the fringes, as serving them now may be prohibitively costly and risky. Lastly, some people simply cannot afford financial services due to high minimum balances/fees, or current services may not be tailored to their needs. Thus, policymakers who wish to expand financial access probably may not be able to do much if certain people are rightly excluded due to their high chance of default. However, they can certainly take some actions against discrimination, insufficient informational and contractual infrastructure, and high provisional costs of financial services.

In this study, we examine the state and determinants of financial development in the OIC countries. Specifically, what excludes three out of four Muslims from accessing financial services? For involuntary exclusion, four possibilities may exist: affordability, insufficient income and high-risk profile of potential clients, discrimination, or weak contractual and informational frameworks. To answer the question, we must trace the flow of money. Total assets of banks in the Islamic world are only half of their GDP. The OIC members lag most countries in financial depth. Either financial institutions or financial markets channel monies of modern societies. The financial markets in the Islamic world do not seem to be the secondary address for the money. One cannot help but ask then, if money is not kept in banks or markets in these countries, where is it? The subsequent critical question is why money is escaping from the system?

Part of the flight from banks may spring from socio-economic reasons. Religious or cultural concerns may still keep away some groups from the 'mundane' financial institutions; despite the fact that the spread of zero-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.

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TALKING ACROSS THE GENDER GAP: EXPLORING MINIMAL RESPONSES IN GENDERED L2 INTERACTIONS OVER THREE WEEKS

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ABSTRACT

For Japanese, the prevalence of minimal responses in gendered discussions highlights a serious sociolinguistic issue. Over the past decade many Japanese youth tend to avoid or minimize interacting with the opposite sex; both genders view such encounters and relationships as problematic, difficult and unpleasant. This, in turn, is causing the population to further decline. The data for this study is based on the Longitudinal Japanese University Student Corpus (LJUSC). The interactions for this corpus were between two Japanese women and three different groups of Japanese males of the same age. The women spoke only in English, one-to-one, for 10 to 15 minutes to each male one time a week for three weeks. This study (which focused on data based on the first group of males, a total of 22 interactions) explores the use minimal responses in gendered discussions between Japanese. Research questions focused on which gender used the most minimal responses, who showed the most agreement and disagreement, whether or not such responses would decrease over the three-week term due to increasing familiarity, and how much of the actual discourse did minimal responses comprise. Results showed that there were no significant differences between males and females in the use of minimal responses over the three weeks of interactions. Furthermore, males showed four times more agreement than females and only twice as much disagreement than females. Minimal responses for males increased on average 44.6% over the three weeks while for females, there was a average 37.8 increase. For both groups, minimal responses made up a total of 24% of the discourse. Recommendations focus teachers highlighting the prevalence of minimal responses in gendered conversations, and the need to move into more varied and productive replies so as to promote more fulfilling interactions.

A QUALITATIVE STUDY OF THE ASSOCIATION BETWEEN AIRLINE LOYALTY PROGRAMS AND CUSTOMER RETENTION IN THE EUROPEAN AIRLINE MARKET

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ABSTRACT

This research has inquired into the association between frequent flyer programs and customer loyalty. The contribution this study makes to scholarly literature derives from divergent findings of prior studies concerning the significance of airline loyalty programs as factors affecting customer loyalty and retention. The present qualitative study has found that frequent flyer membership status is not consistently associated with airline loyalty or customer retention.

Index Terms — Customer Loyalty, Frequent Flyer Programs, Market Segmentation, Customer Retention.

I. INTRODUCTION

Whereas previous studies indicate that airline loyalty is positively affected by frequent flyer programs, air flight ticket prices, national carrier status and perceived reputation, in particular consumer market segments, only some of these loyalty factors are likely to play a significant role [8]. Given the growing presence of low cost carriers in the air flight market, airline customers may increasingly switch their loyalty to these carriers, although this trend holds less for business passengers [3].

Furthermore, in particular subsectors of the air travel consumer market, such as among business travelers, frequent flyer programs are closely associated with social status, which indicates that the effect of frequent flyer benefits and rewards is likely to be influenced by their perceptions in different customer groups [10].

At the same time, the influence of frequent flyer programs on customer retention in the airline industry demands further research. Though these customer loyalty programs are in wide use in the airline industry, due to their effect on perceived service quality and airline selection, whether these programs can bestow durable competitive advantage remains debatable, due to their associated costs and uncertain added value [17]. Similarly, studies on customer loyalty programs indicate that, despite their popularity, these programs do not have an unequivocal effect on customer behavior, which is likely to limit their effectiveness. Although loyalty programs can reinforce customer preferences in the long term, their impact is likely to significantly differ across various market segments [9].

In other words, the influence of loyalty programs on customer behavior can prove to be limited in its short- and long-term effectiveness among frequent service users, even though these programs can increase brand patronage levels, especially for low frequency service users [15]. Furthermore, customer loyalty is likely to be significantly affected by switching costs, brand involvement and perceived benefits [5]. Likewise, the utility of frequent flyer programs to airlines might be limited, since their lock-in effect on airline customer behavior may be relatively weak [19].

Therefore, this study that has inquired into the impact of frequent flyer programs on customer loyalty in the European airline market makes a significant contribution to the scholarly literature, due to the lacking consensus in recent studies concerning the nature of the interrelationship between frequent flyer programs and customer loyalty and retention.

II. AIR TRAVEL MARKET SEGMENTATION

Prior studies have shown that business travelers primarily base their airline choices on the breadth of air flight options, the total air travel time toward their destinations, and the presence of direct flight possibilities, whereas frequent flyer programs, on-time arrivals, and airfare prices play a less important role in their carrier choice decisions. In other words, despite the relative dearth of studies on airline choice within different air travel market segments, it can be hypothesized that airline customer loyalty is likely to be influenced by different factors within different customer groups. In this respect, the air travel market can be segmented not only according to travel purpose, such as business or vacation travel, but also in accord with more complex

criteria, such as socio-demographic characteristics [7].

For this reason, airline services use is likely to be closely associated with income levels, social status and social identity. However, the interrelationship between the effectiveness of frequent flyer programs and these variables is only beginning to receive research attention. Descriptive studies consistently indicate that in Western European countries, such as Sweden and France, between 3.8% and 5% of their populations respectively account, according to estimates, for between 28% and 50% of the flights made nationally or internationally [10]. Therefore, strategically targeted frequent flyer programs can provide a significant competitive advantage to legacy carriers in their effort to maintain their market share, as low cost carriers are entering the airline industry. Given that loyalty programs are routinely deployed in other industries, such as credit card, hospitality and car rental sectors, in the airline industry, carriers also make efforts to use frequent flyer programs for strengthening their market position. These frequent flyer programs are deployed not only due to their expected effect on customer choices, but also due to the opportunities they provide to retain particular customer groups, such as business class travelers. In many cases, loyalty benefits take the form not only of gratis travel miles but also of non-air travel-related rewards that can be especially attractive to particular passenger groups. In other cases, targeted conditions on the use of frequent flyer benefits can be imposed, which can increase the economic benefit that airlines are likely to derive from loyalty programs, as many customers can be expected not to redeem their frequent flyer miles [17].

Furthermore, due to the association between frequent flyer programs and social status, the behavioral effect of higher customer loyalty levels they are aimed to have, as marketing programs, is likely to be restricted to business travelers, since they are less price-sensitive than other airline passenger groups and have relatively inelastic demand for airline services [12]. Additionally, business travelers can be expected to be particularly influenced in their airline choice by flight schedules, in-flight comfort, and carrier reliability as opposed to airfare costs and service quality as variables that are likely to affect airline preferences in the general population of airline customers. Since in some cases airline passengers are not covering the costs of air travel at their own expense, it is likely that socio-demographic characteristics, such as education level, will either mediate or moderate the interrelationship between frequent flyer program membership and airline preference. This may lead airlines to target these customer loyalty programs to market sectors that are most likely to generate revenues that can compensate for the extra costs that premium services offered to program members involve [17].

This is supported by previous studies that indicate that heavy service users or product buyers are more likely to enroll into loyalty programs due to their pre-existing preference for and commitment to their providers and membership in similar programs of other companies. Furthermore, heavy service users are likely to be strongly motivated to join loyalty programs, since taking advantage of their benefits will not demand making significant changes to their purchase behavior [6]. Moreover, despite their relatively low share of approximately 10% among all company consumers, heavy users of loyalty programs are highly likely to contribute to their popularity through their word-of-mouth impact during social interactions [1]. At the same time, whereas demographic characteristics of consumers, such as gender and age, have not been found to influence the likelihood of enrollment into loyalty programs, income levels cannot be necessarily expected to be closely associated with the adoption of these programs. The greater propensity of high-income individuals to join loyalty programs may be counterbalanced by their multiple memberships in different customer loyalty programs as well as higher levels of concern for personal data privacy and selectiveness in their loyalty program choice [14].

Furthermore, for frequent flyers the economic switching costs of loyalty programs are not likely to play a significant role, since their ticket purchase volumes allow them to meet reward criteria with relatively little effort. Likewise, for infrequent flyers customer loyalty programs can be expected to be relatively unimportant as factors influencing airline choice, since they rarely accumulate sufficient frequent flyer points to qualify for program rewards. This also makes this customer group insensitive to switching costs [11]. Thus, loyalty programs are most likely to be effective among moderate and light buyers of airline services, both in the short and the long term, especially since frequent flyers tend to already reach their maximum purchasing capacity, which limits their ability to increase their usage levels of air travel services [2]. This consumer market segmentation has important implications for airline profitability, since frequent flyers with high loyalty levels are more likely not only to respond to ticket price promotions but also to redeem their card membership rewards than other customer groups. By contrast, airline customers with light to moderate service purchase frequency are most likely to respond to loyalty program incentives with higher sales volumes. However, these market segments are oftentimes underestimated as potential sources of company profitability [4].

These findings indicate the importance that tailoring frequent flyer programs to different consumer market sectors has for airline profitability, especially since in saturated markets the overall impact of loyalty programs on aggregate consumer behavior can be limited [13]. In terms of empirical research, studies inquiring into the effectiveness of frequent flyer programs may need to control the influence of the self-selection bias on consumer behavior by sampling both loyalty program members and customers that are not enrolled into airline card programs, in an effort to ascertain whether significant differences in purchase frequencies and volumes between various customer groups exist [16]. Thus, across different airline customer groups, the positive effect of loyalty program membership can be expected to be relatively limited. However, since previous studies have used a wide range of consumer behavior indicators, such as retention rates, behavioral intentions and customer expenditures, there is a need for additional research into the effectiveness of loyalty programs in view of divergent empirical findings [21].

This is closely related to the opportunities for personalized marketing that loyalty programs offer, since their member profiles based on purchasing behavior enable a narrow targeting of promotional offers and communication strategies to specific customer groups. Furthermore, directing preferential customer treatment to particular market segments can increase the effectiveness of loyalty programs as long-term relationship building mechanisms that can be expected to reinforce behavioral loyalty [20]. At the same time, personalized marketing strategies might entail economic costs if they become perceived as discriminatory or unduly favorable to particular customer groups, such as new program members. Therefore, loyalty program design may significantly affect both the attractiveness of these programs and their influence on customer behavior [18].

III. RESEARCH METHODOLOGY

In the framework of this study semi-structured interviews with representatives of different frequent flyer membership categories have been carried out. In total, five semi-structured interviews have been conducted. Research participants have been recruited through a convenience sampling technique. These interviews have been collected in-person, over the phone and via e-mail, due to the difficulty of recruiting research participants enrolled in frequent flyer programs (FFPs) of different levels. On confidentiality grounds, names or any other identifying information of neither research participants nor airlines to which FFPs refer are mentioned.

IV. QUALITATIVE ANALYSIS

The following comparative qualitative analysis is based on semi-structured interviews with representatives of different FFP membership categories. The age of the interviewees ranges from 36 to 50. 80% of the interviewees are male, and 20% are female.

According to the semi-structured interview results, the importance of FFP-related benefits is consistently associated with the level of frequent flyer programs (FFP) membership. Whereas the interviewee with no participation in FFPs did not perceive any advantages in FFP enrollment, due to personal data-related risks to privacy that would involve, respondents in basic to premium FFP membership levels have expressed an increasing appreciation of FFP-related advantages. Whereas for the basic-level FFP-member, FFP participation is primarily motivated by point-related awards and special services, the medium-level, high-level and premium-level FFP members have equally indicated that lounge access, membership privileges, such as free drinks and limousine service, and travel convenience, represent the key reasons for their FFP participation.

Whereas interview transcripts indicate that for the basic-level and high-level FFP members an enrollment into two FFP is maintained, for members in medium to premium FFP members, a single primary FFP can be identified as a factor influencing airline choice due to point accumulation considerations and FFP-related benefits, such as FFP status-related special treatment. Furthermore, for the premium-level FFP member, the FFP is primarily valuable since it provides advantages for booking flights with FFP-related airlines, rather than as a factor affecting the choice of a particular individual airline.

The FFP non-member, medium-level FFP member, entry-level FFP enrollee and premium-level FFP status holder have equally indicated that, in the current period, they did not terminate a FFP membership or switch between different FFPs. This is highly likely to be the outcome of the loyalty program points accumulation mechanism, as the premium-level FFP member has indicated. At the same time, in the case of a medium-level FFP member, another FFP membership is retained. Since this FFP membership has remained largely inactive due to inconvenient departure and arrival schedules of the associated airlines, additional criteria are likely to affect airline choice in addition to FFP membership. This is especially

pronounced in the response of the high-level FFP member that has terminated another FFP membership not only because of personal data security considerations, but also since work-related air travel patterns have significantly changed. In other words, other things being equal, responses of all FFP members indicate that program-related lock-in mechanisms and switching costs effectively discourage the termination of the current FFP membership.

Furthermore, the present study indicates that FFP memberships do not necessarily represent the most important factor affecting airline choice. Whereas for the FFP non-member airfare prices and airline security are the primary airline choice criteria, for the basic-level FFP member connection flight convenience is more important than airfare prices. In both cases, FFP membership *per se* is not mentioned as a customer decision-making factor. By contrast, for medium-level to premium-level FFP members, the importance of FFP membership is counterbalanced by other factors. Whereas for the medium-level FFP member departure and arrival times and overall airline quality also influence airline choice, high-level and premium-level FFP members seek to strike a balance between airline loyalty and price considerations. The point-collection pressure is particularly pronounced with the premium-level FFP member who does not perceive airfare prices as highly important, since enjoying FFP benefits demands a high level of loyalty program point accumulation.

In other words, this study indicates that FFP are primarily relevant for frequent flyers, since the FFP non-member has indicated that frequent flying, airline services and special offers are irrelevant for her decision not to enroll in a FFP. By contrast, across different status levels, for all interviewed FFP members, except for the high-level FFP member, their loyalty program membership has been found to be related to flight frequency. For the high-level FFP member, the in-flight and service treatment he receives as an airline customer represents the single most important factor affecting FFP membership. But for the entry-level FFP member, preferential treatment and special deals serve as additional factors that impact the retention of the FFP membership status. By contrast, for the medium-level FFP member, the current FFP membership status is primarily a function of the point accumulation process that leads to other status retention or a transition to a lower-level FFP status.

As this study has found, for the entry-level, medium-level and premium-level FFP members, the FFP-related factors influencing FFP participation are also likely to affect airline choice. By contrast, the airline choice of the FFP non-member has been found to be primarily dependent on airfare levels, prior airline experience and airline security. For the high-level FFP member, the overriding factor influencing airline choice is loyalty program point accumulation mechanism, since the FFP-related credit card use significantly accelerates the point accumulation process. Similarly, for the FFP non-member and basic-level FFP member, non-enrollment and participation in FFPs respectively has not been found to affect their airline-related attitudes and customer relations. At the same time, the interview results indicate that, for the medium-level to premium-level FFP members, their loyalty program membership has an effective influence on their attitude toward different airlines and corresponding customer relations.

Nevertheless, the effect of FFPs may be primarily dependent on the benefits that they provide. Thus, the FFP non-member has indicated that these loyalty programs are not relevant, since their benefits are not well understood. Additionally, as this interview respondent has indicated, non-members in FFPs are likely to fail to associate FFPs with advantages due to the importance they assign to airline choice flexibility and not being affected by lock-in mechanisms related to FFP point accumulation. In contrast, across different membership levels, FFP members have been found to perceive FFPs as both valuable and relevant. At the same time, only the entry-level FFP member has indicated a positive impact of the FFP on his customer loyalty due to the special treatment to which the FFP provides access. For the medium-level FFP member, the loyalty program is primarily relevant for his professional activity but not for private air travel. For the high-level FFP member, the importance of the loyalty program is a consequence of its key advantages, such as status-related point accumulation, pre-departure lounge access and free flights. Similarly, for the premium-level FFP member, the loyalty program is primarily valuable due to its financial advantages, such as free flights and free meals in airport lounges.

Yet, both the FFP non-member and entry-level member have indicated in their responses that the FFPs are not related to their airline loyalty. More specifically, for the FFP non-member, no durable connection to an airline exists, since for each flight an optimal solution is sought after in terms of airfare prices and travel schedule. In the case of the basic-level FFP member, no airline loyalty exists, since the respondent is not always directly involved in airline booking. In contrast, for the medium-level to premium-level FFP members, loyalty program participation has been found to be related to airline loyalty. However, for the medium-level FFP member, customer loyalty is significantly related to the FFP not only due to its

advantages but also to the national airline status of the primary carrier associated with the loyalty program. For the high-level FFP member, FFP participation creates a customer preference for the airline due to the effect of a wide range of factors, such as airline security, airline size, airline reputation, and national airline status. For the premium-level FFP member, the relationship between FFP participation and airline loyalty exists due to numerous loyalty program advantages.

Whereas the FFP non-member has indicated that loyalty program points are not perceived as relevant or important for airline choice, all FFP members interviewed have reported a significant interrelationship between point accumulation and airline choice. At the same time, only the entry-level and medium-level FFP members have indicated a positive influence of FFP points on their airline choice as consequence of their desire to maintain their present membership status or achieve a higher membership level. By contrast, for the high-level and premium-level FFP members, point accumulation mechanism is not seen as having a negative influence on their airline choice, since FFP points are utilized immediately after an accumulation threshold is reached due to their high flight frequency.

Likewise, the respondents have been found to exhibit dissimilar profiles in terms of their customer experiences with traditional airlines in comparison to low cost carriers. Thus, for the FFP non-member, the service differences between traditional airlines and low cost ones characterized by limited in-flight comfort do not lead to dissatisfaction with low cost carriers, since low airfare prices entail low expectations in relation to these airlines that are primarily booked for short haul flights. Similarly, for the entry-level FFP member, whether an airline is a full-service carrier or a low-cost service provider has been found not to affect airline choice for the reason that low airfare prices are expected to lead to reduced service levels. In contrast, the medium-level to premium-level FFP members have been found to have either no experience with low cost airlines or negative experiences upon flying with these carriers.

In a similar manner, each FFP membership-related customer groups can be expected to exhibit dissimilar reasons for either enrolling into or switching between airline loyalty programs. Thus, for the non-member in airline loyalty programs, FFPs have been found to be associated with financial disadvantages, such as exposure to higher travel costs and constraints on airline choice, as FFP membership is anticipated by this respondent to make the FFP-related airline selected more frequently as a service provider than otherwise. By contrast, the basic-level FFP member has indicated that his enrollment into the airline loyalty program has not been affected by either financial considerations or brand loyalty. This is highly likely to be related to the enrollment of this interviewee into the FFP by his employer. Given that his FFP membership costs are covered by his company, the medium-level FFP member has indicated that his participation in the airline loyalty program primarily follows from the FFP status-related advantages, airline brand loyalty and airline security. This indicates that high FFP membership costs may lead to switching between loyalty programs, in case these costs were to be carried by the respondent. Likewise, for the high-level FFP member, the participation in the FFP is conditional upon customer satisfaction with airline service and security levels, in the absence or low level of which the respondent is likely to switch between FFPs and associated airlines. Thus, FFP membership is not necessarily related to airline loyalty.

V. CONCLUSIONS

Based on the present findings, this qualitative study has not found a consistent relationship between FFP memberships and customer loyalty. Thus, this study indicates that, for different FFP-related customer groups, airline loyalty programs are likely to have distinctive positive and negative aspects. For the FFP non-member airline loyalty programs have no perceived advantage, while the sharing with the airlines of the respondent's personal information is conceived of as an FFP disadvantage. Yet, for the entry-level FFP member, the loyalty program is broadly associated with both advantages and disadvantages, such as FFP-related awards or special services and the point accumulated-related constraint on airline choice respectively. For both the medium-level and high-level FFP member, the airline loyalty program is primarily associated with the specific advantage of boarding priority.

The present findings support the conclusions of [3], according to which business passengers are less likely to switch to low cost carriers than regular air travelers. Furthermore, this research corroborates the expectations of [17] that FFP do not necessarily provide airlines with a durable competitive advantage due to their weak association with customer loyalty and retention. Likewise, this research reinforces the conclusions of [9] that customer loyalty programs do not have a consistent effect on customer behavior, due to the segmentation of the airline customers into distinct groups. Even though this study indicates that, similar to [15], airline loyalty programs can be expected to have limited effectiveness, present findings also show that brand patronage levels can significantly differ among various customer groups, such as entry-level

FFP members. This study also concurs with [19] that frequent flyer programs have a relatively limited lock-in effect on airline customer retention.

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

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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), Pimpapur 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 1

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).

$$ROA = \beta_0 + CCE\beta_1 + DR\beta_2 + DAR\beta_3 + DI\beta_4 + DWC\beta_5 \quad (1a)$$

$$ROA = \beta_0 + CCE\beta_1 + DI\beta_2 + DWC\beta_3 \quad (1b)$$

$$ROA = \beta_0 + \frac{NCA}{TA}\beta_1 + Ln TA\beta_2 + DR\beta_3 + DI\beta_4 \quad (2)$$

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 current assets
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		-0.00000549 [0.00000141]	-0.0000052 [0.00000142]	-0.00000733 [0.00000141]	-0.00000467 [0.00000123]	-0.00000817 [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 [0.02123]	0.078878 *** [0.023776]	0.088861 *** [0.020886]	0.088855 *** [0.020993]	0.021438 [0.047111]	0.020801 [0.049056]	0.002753 [0.052702]	0.040644 [0.071607]	-0.478665 ** [0.19307]	-0.551152 *** 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)

$$ROA = -0.510332 + 0.370575 \frac{NCA}{TA} + 0.029887 \ln TA - 0.138832 DR - 0.000721 DI \quad (5)$$

[0.129534] [0.00871] [0.046716] [0.00138]

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.

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FLIP IT AROUND: THE POSITIVE IMPACT THAT THE REFINED FLIPPED CLASSROOM MAY HAVE ON REDUCING THE BLACK ASIAN MINORITY ETHNIC (BAME) ATTAINMENT GAP

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ABSTRACT

Many HE institutional education strategies have traditionally been based on provision targeted at a predominantly white student cohort. However, in an environment where degree programmes are being delivered to increasingly culturally diverse cohorts, it is an assumption that needs to be questioned and addressed by universities if they are to respond effectively to this changing cultural environment. Research highlights that Black Asian Minority Ethnic (BAME) students differ in the ways they learn and communicate from their White counterparts, and that many are less likely to be satisfied with their educational experience or to attain good honours degrees when compared to their White peers.

Based on a case study, the author highlights the significant reduction in the BAME attainment gap that has been achieved through the use of a refined flipped-classroom model across an entire undergraduate degree programme. The refined model allows students to watch lectures at times that suit them and provides them with a database of stored information to refer back to, when it is time to revise for exams or to write coursework. However, there is the additional benefit which encourages students to develop critical reasoning skills in a way which the standard classroom method of delivery does not explicitly provide for, and the traditional flipped classroom has difficulty achieving.

When comparing the performance of students during the period 2012/13 through to 2014/15, the following pattern may be noted in Table 1 with regards to the percentage of students graduating with a good honours degree:

Table 1

Ethnicity	2012/13	2013/14	2014/15
White	79	79	75
Asian	67	73	75
Black	55	58	69
Chinese	50	100	100

The success of the refined flipped classroom is clearly highlighted above with a marked and sustained reduction in the attainment gap of BAME students, against their White peers, has taken place.

Keywords: BAME attainment gap, Critical reasoning, Refined flipped classroom

A UNIQUE COMPARATIVE ERP CONSULTANT SELECTION APPROACH IN SMEs UNDER UNCERTAINTY AND VAGUENESS

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Enterprise Resource Planning (ERP) software selection in small and medium sized enterprises (SMEs) is extremely significant and difficult decision process for developing companies. After constructing the software, companies must decide which ERP consultant is the most appropriate and the least costly for them. At this point companies determine the factors mostly affect them and evaluate the ERP consultants with respect to these factors. In this study, brief general information about ERP systems is given and the factors that affect the success and cause failures in ERP system are stated. Then ERP consultant selection problem has been analysed in a Turkish machine manufacturing company with details by using multi criteria decision making (MCDM) methods as Analytical Hierarchical Process (AHP), Analytical Network Process (ANP) and Technique for Order reference by Similarity to Ideal Solution (TOPSIS) under fuzzy environment. The Minkowski distance function is adopted to solve the consultant selection problem to the fuzzy TOPSIS. Finally, the comparison results of fuzzy ANP and fuzzy TOPSIS methods are presented and the most appropriate ERP consultant is selected.

Keywords: ERP consultant selection, Fuzzy ANP, Fuzzy TOPSIS

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

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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 of row 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 (f _j)	WORST (f _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 in 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.

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THE MIXED MODE STUDY ON GAMIFICATION IN EDUCATION TO ENHANCE TEACHING AND LEARNING PROCESS

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ABSTRACT

Gamification in education is the utilization of game elements in the teaching and learning process. The concepts of gamification make the possibility of making classroom itself like a game. The study is aimed to present the details of a mixed mode study to identify the features of gamification in education to increase the teaching and learning process in the classroom. The objective of this study is to examine the effectiveness of gamification features for enhancing the teaching and learning process in the classroom. The participants for this study were 46 students from a local higher education institution. The quantitative data were gathered with the questionnaires and qualitative data were collected with interviews and observations. The analysis data will uncover: (1) to what extent enjoyment of gamified classroom affect their learning experience; (2) how motivation and reward system are relevant to the adaptivity of gamified classroom; (3) to determine how far the utilization of audio visual and navigation are related to the gameplay experience in gamified classroom. The participants perceive positive (mean=4.049) on audio, visual and navigation elements of gamification in the classroom. This also support by the qualitative data, 97.8% participants have very positive gameplay experience via Prezi in gamified classroom. They felt great, interesting, fresh and interactive of the learning content in gamified classroom and felt fun, easy and happy when they are learning in gamified classroom.

Keywords—Gamification, Gamified Classroom, Mixed Mode.

INTRODUCTION

The current trend in educational field for 2016, which is on the peak of hype cycle are digital assessment, learning analytics, Competency-based education platforms; Virtual Reality or Augmented Reality applications in education, smart machine education applications, Massive Open Online Course (MOOC) platform, and others are still on the rise side. However, adaptive learning platforms, big data in education, gamification and others are in the phase of sliding into the trough [1]. Although it is slightly coming down, the expansion of the internet and mobile technologies have led to use of tools to motivate and engage youths in their daily life. Gamification, by applying game mechanics to non-gaming environments, such as educational field, has proven to be capable of engaging users and leading to the creation of habits and social change [2].

There is an undeniable theoretical benefit from applying gamification into variant field of study, especially it can motivate younger generation to engage with the gamified classroom, and then lead to enhance the teaching and learning process in the classroom study. It provides the potential to generate the stimuli to amplify the small wins generating engagement, user habit and lastly feeding up a progress loop that leads to social change [2].

Furthermore, maximizing enjoyment and engagement of students and inspiring them to learn are the advantages of gamification in education. The utilization of game-like rule systems, player experience and the roles of cultural to stimulate students' attitude [3]. Avatars, background audio, voice recording, characters, images, video, rewards, interactivity and navigation are the features or components of gamification that can be embedded to motivate and engage students to learn [4-5]. However, the integration of gamification in education still need further investigations and empirical data to show what extent gamification in education can impact on the students teaching and learning process.

Thus, this study is mainly to present the details of a mixed mode study to determine the gamification features in enhancing students teaching and learning process in the classroom via Prezi. The aim of this study is to examine the effectiveness of gamification features to enhance teaching and learning process in the classroom. Next part is some background studies on gamification in education and gamification in the classroom as well as their effectiveness studies. The design and method of the study will be discussed and

findings will be tabulated and presented. Finally, conclusion will be made after the discussion of the analysis results.

BACKGROUND STUDY

There are tremendous studies have been carried out to investigate the effectiveness of using game in teaching and learning of various subjects. Gamification also become the trend in teaching and learning since it can engage students effectively, stimulate students interest, retain their focus and remain a positive attitude in the teaching and learning process. Thus, gamification has the potential to enhance teaching and learning process via the gamified classroom. Table 1 has tabulated a number of studies that have been conducted to identify the outcome of a change in teaching and learning environments and its evidence where available. Most of the study also used mixed mode study to investigate the impacts or effectiveness of gamification and their results also shown positive responds on motivation, engagement and academic performance. However, there is one of the study had shown the negative results that students did not show any significant improvements on their assignment, performance after they completed gamified experience [4].

Table 1
Summary of previous studies regarding to gamification in education

Authors	Year	Area of study	Results	Used Methods
Dominguez et al. [4]	2013	The impacts of gamification learning experiences	Students who completed the gamified experience got better scores in practical assignments, performed poor in written assignments and less participate in class activities	Experimental study - Qualitative and quantitative
Hanus & Fox [5]	2015	Longitudinal study on effects of gamification in the classroom	Students in the gamified courses shown less motivation, satisfaction and empowerment over time than those in the non-gamified class.	Survey
Cakiroglu et al. [6]	2017	Influence of gamified ICT course on engagement and academic performance	The combination of gamification elements provide a positive motivational impact on engagement and indirectly affect the academic achievement.	Qualitative (interview) and quantitative (Engagement Scale)
Marti-Parreno, Segui-Mas & Segui-Mas [7]	2016	Teachers attitude towards and actual use of gamification	Teachers shown positive attitude towards gamification in private universities than public universities.	Exploratory study
Lister [8]	2015	The effect of gamification on students motivation and performance at the post-secondary level	The gamification elements can motivate students and support student achievement in post-secondary environments	Mixed method study – qualitative and quantitative

METHODOLOGY

This research will investigate the effects of gamification in the classroom by using Prezi, specifically studying the enjoyment of gamified classroom affect their learning experience; the possible effect of how motivation and reward system of the gamification features relevant to the adaptivity of gamified classroom and what extent the utilization of audio, visual and navigation affect the gameplay experience of gamified classroom. Prezi, a cloud-based presentation software is used to study the gamification features in the teaching

and learning process. There are 46 students of Foundation of Computing had participate this study. These students have explored themselves to Prezi for six hour classes, two hours for each class.

Questionnaires were used to collect quantitative data from the participants on enjoyment, motivation and reward system, utilization of audio, visual and navigation in gamified classroom via Prezi. The perceptions of the participants on the integration of gamification features in their classroom teaching and learning via Prezi have been examine by using the questionnaires. This questionnaire consisted of 20 items and 5-point Likert scale ranging from 1 to 5 (1-strongly disagree; 2-disagree; 3-neutral; 4-agree; 5-strongly agree) were used to rate the questionnaire. First part of the questionnaire was used to gather student demographic data, such as gender, age group, past playing game experience.

After filled up the questionnaire, the participants will be interviewed to collect qualitative data for further information. The interview used to collect data on student perceptions or thoughts on gaming experience, learning experience, adaptivity and gameplay experience. The interview consisted of 13 open-ended questions, which were modified from the previous study (8). The summary from the interview will be present after analysed the qualitative data. Discussion and conclusion will be made after combine both quantitative and qualitative results.

RESULTS AND DISCUSSIONS

As mentioned above, there are total of 46 students have participated this study. 36 male students and 10 female students, who are aged from 16 to 20 year old have perceived the enjoyment of their learning experience during the gamified classroom, perceptions on motivation and reward system that embedded in gamified classroom via Prezi, audio and visual as well as navigation of gamified classroom. The questionnaire and interview results, aimed to evaluate the potential effectiveness of gamification in education can affect the teaching and learning process.

4.1. *Enjoyment of learning experiences vs Learning experience*

Table 2 has illustrated the score mean for the selected items on enjoyment of their learning experience during conducted gamified classroom via Prezi. Of 46 students, there are 84.78% students felt curious of exploring lecture content in gamified classroom via Prezi and 86.96% of students were engaged immerse in learning. The mean of the tested item for the enjoyment is 4.000. This means that students agree with the enjoyment of their learning experience when they are studying in gamified classroom, they felt curious, engaged when they were exploring the learning content via Prezi. They also felt entertained in their learning via Prezi, with men score = 3.913.

Table 2
Mean score for perceptions on enjoyment of learning experience from gamified classroom

Item	Statement	Mean
E1	I feel curious of exploring the lecture content	4.043
E2	I feel entertained in learning	3.913
E3	I am engaged immerse in learning	4.043

Furthermore, when compared to traditional classroom which used PowerPoint Slides, almost all students would select Prezi for their learning. The interactive and game-like features of gamification in education can motivate and engage students to learn. Some of the positive quotes from the students are shown as below:

P11: “We may lose our concentration easily in normal traditional classroom. However, we can stay connected for long time via Prezi.”

P17: “Prezi is so interactive and it is very eye catching, entertain and make us fun, enjoy and focus easily when we are learning via Prezi.”

P20: “If compared to normal classroom, I choose Prezi to learn because of the flawless transition.”

P33: “I prefer to use Prezi due to its animation, graphics and colours.”

P38: “Prezi is more interactive, PowerPoint slides is boring with text only.”

Almost 95.5% students felt enjoy and engaged in the learning experience from the gamified classroom through Prezi. To conclude this, students truly felt enjoyed, entertained and engage with the learning process. At the same time, they also give a very positive response on their learning experience from the gamified classroom. The class

observation also found that students are more focus and concentrate on their learning in gamified classroom due to its interactive and game-like features.

4.2. Motivation and reward system vs Adaptivity

To examine the motivation and reward system features that adopted in gamified classroom, two selected statement which obtained high mean score has been shown in Table 3. Of 46 students, 84.78% of them can focus what they are learnt from gamified classroom. Overall, the mean score for the perceptions on motivation and reward system that adopted in gamified classroom is 3.935.

Table 3
Mean score for perceptions on motivation and reward system that adopted in gamified classroom

Item	Statement	Mean
MR1	I can focus what am I going to learn	4.022
MR2	I am motivated in learning	3.848

If gather further data on motivation and reward system, adaptivity is important to enable us to know what features of gamified classroom that increase their learning via Prezi. To answer this, students are asked about the special features of Prezi: zooming user interface, narrative, rewards and engagement. The interview results have quoted as following list:

P6: "It attracts me to have the "power" to learn."

P10: "It motivates me to learn."

P14: "Reward system would benefit me in the learning environment."

P17: "The engagement makes me can remember the things even after many days."

P25: "The slides enable me to remember the points that is hard to memorise."

P36: "I believe Prezi increases immersive and make students to be more engaged."

P41: "Prezi gives the opportunity for me to remember any topic in an effective way because I can watch and listen to it as a movie. That's the best feature!"

P2: "It allows us to customise slides."

P4: "Narrative features are very capable to explaining something."

There are 86.36% students gave positive response on zooming interface features of Prezi. 81.81% of students perceived positive on reward system and engagement that offered in gamified classroom. From the positive results that shown in questionnaire and interview, gamification in education offered reward system, engagement and zooming interface is truly attract students to learn and increase the teaching and learning process.

4.3. Audio, visual and navigation of gamified classroom vs Gameplay experience

Next, this study also revealed the perceptions on audio, visual and navigation features of gamified classroom from the questionnaire. Table 4 has tabulated the mean score for the perceptions on audio, visual and navigation features of gamified classroom. Of 46 students, 82.60% of them can listen background sound clearly and 80.4% of them can be guided with the provided pathway, explore and navigate while they learning via Prezi. The overall mean score for audio, visual and navigation features of gamified classroom via Prezi is 4.049.

Table 4
Mean score for perceptions on audio, visual and navigation that adopted in gamified classroom

Item	Statement	Mean
AVN1	I will be guided with pathway that provided	3.935
AVN2	I can explore and navigate while I am learning	4.065
AVN3	I can navigate the gamified experience easily	4.087
AVN4	I can listen the background sound clearly	4.109

When asked to describe their feeling about the gameplay experience, during the interview, 97.8% students give positive responses on this, such as interactive, attractive, interesting, engage, creative, exciting and playful. The followings are some positive quotes from the students:

P20: "It is attractive."

P34: "I feel very comfort than the traditional PowerPoint presentation."

- P17: "More interesting and attractive."
 P10: "It would be interesting to learn something new."
 P15: "I think it would be interesting."
 P19: "Prezi has way more interactive features and allows the users more control over their content."
 P41: "Very interesting and great way to present."
 P32: "An interesting way of presentation but it has too much of distraction."
 P31: "It's kind of fun."
 P37: "Fun and happy as well as enjoy every moment."
 P45: "Prezi create more fun, happy and easy for students to absorb the knowledge since the environment is very comfort."
 P35: "Easy and less boring."

To conclude this, there are 90.9% students give positive gaming and gameplay experience while they are studying by using Prezi. They feel great, interesting, fresh and interactive of the learning content in Prezi and more fun, easy and happy when they study by using Prezi. This is because of the utilization audio, visual graphics, animations, video and navigation features. These features enable students are attracted with the gameplay experience and increased their learning. Although the zooming user interface, animation and background music are the most like features by the respondents, these features also dislike by some respondents. The music or audio in Prezi is the main problem that hinder the participants' gameplay experience.

CONCLUSION

All in all, the mixed mode method results have shown the positive responds from the participants on gamified classroom via Prezi. With the advantage and features of gamification, enjoyment, reward system, motivation, graphics, animation, audio and navigation, students are attracted and engaged in the gamified classroom. Indirectly, this also improve the teaching and learning process in the gamified classroom with the interview results on students learning experience, gaming or gameplay experience and adaptivity of gamification. The authors hope these useful data can provide the design features of gamification in education can be implemented and embedded in future teaching plan so that students can learn effective in an interactive gamification environment.

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STUDY ON EFFECTIVENESS OF LEARNING ENGLISH AS SECOND LANGUAGE USING CLOUD BASED SELF LEARNING MATERIAL

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ABSTRACT

The Present paper is based on the doctoral thesis on the same topic and its findings in the field of use of Educational technology in English Language Education. The paper aims to bring to light the pitfalls in the use of Educational Technology in Schools by use of appropriate technology to compensate for gaps between objectives and practice. The study was undertaken in the wake of the shocking realization that students are unable to deftly handle the subtle nuances of English even when they are accustomed to a prolonged exposure to the language. The easy attitude to the language could have led to its pitiable condition which is ever worsening. To further imperil the plight, the (mis)use of technology in class is ever at an alarming rise.

Nevertheless, the field of Educational Technology exhibited a discernible tendency to become shallow and underutilized. The use of technology came to be restricted to select areas and tools such as reading enhancers or tools for drill and practice were the only ones that were highlighted. The use of technology in the field of English teaching too was no different. Though the volume of research based on Education and Technology was phenomenal, the outcome was considerably limited in its scope and design. The continuum of problems faced by students in the English classroom even today bears testimony to this fact. The present study tries to look at how the situation can be improved by incorporating educational technology in a categorical and practicable manner.

The methodology of the study utilizes the survey method to collect the relevant data from the students on the condition of the use of technology in schools and further uses experimental method to try out a cloud based self-learning material developed on students of Secondary school students. The investigator thus used quasi experimental research design for the study. The findings of the study points to the effective use of cloud based self-learning material in the English Class room by bringing out information on the various sub-skills on which the method was found effective. The paper will also address areas like the possibility of switching over to newer technological avenues in language Education, comparative effect of cloud based SLM and conventional materials on individual language sub-skills and estimates the relative use and disuse of modern teaching technology in schools.

ECONOMICAL OR FINANCIAL PERFORMANCE? PAY ATTENTION TO YOUR VOCABULARY!

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ABSTRACT

Abstract - This paper focuses on and compares two specific definitions of performance: economical and financial, with as aim to provide evidence that readers must be careful when using both definitions. Relying on a Belgian sample made of 14 135 firms, our results show that one specific variable deserves to be questioned: the worker's level of education. It seems on the one hand that the workers level of education has a positive impact on economic performance; the more the firms hire highly educated workers, the more it is productive. On the other hand, it seems that the effect is totally the opposite when the financial performance is taken into account: in this case, the more the firms rely on highly educated workers, the less it is performing. One must therefore be careful!

Keywords - Firm Performance, Panel data, Economical Performance, Financial Performance

INTRODUCTION

Nowadays in our advanced economies, performing seems to become a major concern for firms. However, performance is not a brand new word, since it was already question of performance in the 19th century, but its meaning evolves year after year.

Now performance may take various definitions, some being links to specific, more classical view of performance, others being more globalized and larger in order to take into account most of the stakeholders of the firm.

It thus seems clear that performance can take different meanings, even if representing one single concept. And medias talking about firm performance do not seem aware that such statement may have huge consequences on our economies. That is, it is not rare to read in a newspaper that firms are more and more performance due to technological changes, and in the same time that firms are facing drastic reduction in their financial performance, leading to higher levels of bankruptcy along the way.

Therefore, one may question: "Who is right?" "Are firms more and more performant or is it clear that their financial performance is reducing with years?". This is the question this paper tries to answer.

Focussing on measures of classical performance, this paper investigates the impact of firms' and workers' characteristics on firm performance, with a specific focus on formal human capital, *i.e.* on the level of education attained by workers.

Relying on Belgian data for the years 2006-2009, and implementing estimation strategies that take into account potential biases such as unobserved heterogeneity or endogeneity in the relations, the originality of

this paper lies in the fact that it focuses on and compares two specific definitions of performance: economical one and financial one, with as aim to provide evidence that readers must be careful when using both definitions.

LITERATURE & THEORY

1.1. What is performance? An historical overview

The word performance would come from the ancient French *par-fournir*, meaning achieving something. It could also come from the term *parformer*, meaning accomplishing, achieving. Nowadays, performance may be seen as a record, an exploit, an accomplishment (Foucher, 2007).

The origin of the word *performance* goes back in the 19th century in France. At that time, *performance* was related to the results of a racehorse and its success following a race. Then, it represented the results of an athlete. In the 20th century, the meaning of this word changed a little, representing the quantified capabilities of a machine in an exceptional way.

In opposite to its French meaning, the English meaning of *performance* is related to the action and its result, and eventually to its unexpected success (Bourguignon, 1995). Finally, some authors suggest that performance must be seen as the relation between an achievement, *i.e.* the results obtained, and a reference system. In this context, the word performance may be seen as a benchmarking analysis.

In an economic sense, performance represents the potential, the capacity of a worker or a firm to achieve a goal, which involves a concept of measurement. Performance is therefore an indicator of success of a firm, a team, a manager, a worker, and may be evaluated in a competitive framework.

In the 20th century, performance was only referring to financial operational performance of short term. Financial ratios were then only investigated in order to assess the health of a firm. Things have changed in the 90' with the predominance of all stakeholders in the firms' decisions making. Then, a more global view of performance was taken into account, with social, economic and environmental performance being gathered (Baret, 2005).

Given these various explanations of performance, it seems that a single definition is not feasible. Two main streams of literature may be pointed out: one the one hand, the classical, more specific one with financial and economical measure of performance on which this paper is focused, and, on the other hand, the modern, more global definition performance.

1.2. One classical view - Two specific measures

Based on the idea that firm financial performance has an impact on its continuity, research on firm performance starts with the DuPont Corporation in 1920s about the Return on Investment (ROI). It has then mushroomed since 1980', and the willingness of researchers to prevent managers from bankruptcy (Bouquin, 1986; Bourguignon, 1995; Lebas, 1995; Bescos *et al.*, 1997; Bessire, 1999; Cheriet *et al.*, 2007; Douhour et Berland, 2007). Following them, successful firms (*i.e.* firms that are present on their markets for more than ten years) seems to register higher levels of financial performance.

Following the economic decline of the United States starting in 1980, and particularly since the beginning of 1990, researchers come off the monolithic vision of performance and start to analyse non-financial indicators of performance besides more classical financial ones (Cauvin & Bescos, 2004). As mentioned in Dixon *et al.* (1990), research directed itself towards a more strategical view of firm performance, focused on the value creation for clients. Researchers of the 90' even consider that the true value of a firm should be measured thanks to non-financial indicators, not anymore financial ones (Wallman, 1995; Edvinsson & Malone, 1997; Stewart, 1997).

It thus therefore seems that both measures of firm performance are used to evaluate firm's health and continuity. Current evidence in the literature show that variables related to firm and its workforce are linked to

such measures and may influence the firm's performance. Among the huge number of variables, characteristics such as age, gender, level of education (human capital through education and training), employment policy (type and length of contract), size of the firm and wage are among the most important that may influence firm's performance.

1.3. The levers of performance

The characteristics of the firm and its workers can have an impact on its performance. Thus, wages, gender, size, type of contract or level of education of workers can impact its productivity levels and the overall performance of the firm.

Many studies focus on the influence of *wages* on worker performance. Bringing together politicians from both Left and Right, merit wages have spread for several years but the main question is whether this merit wage is a good indicator of performance (Lazear, 2004). During the 1880s, Americans noticed the link between wage increase and a better performance with as leader of this movement, Taylor and Henry Ford. During the next century, authors such as Maslow (1943) or Herzberg (1966) questioned the link between "performance incentives" and "wages". During the 1960s, performance-based wages experiences a new lease of life with the work of Vroom (1964) and Porter and Lawler (1968). Nowadays, researches of these authors are questioned because of some scientific gaps, specifically at the level of the results. The proponents of this theory argue that linking wage to performance is beneficial if the worker feels motivated by such policy: an increase in motivation leads to an increase in productivity and therefore in wage (Cahuc & Dormont, 1992). Critics of this theory believe that merit wage would not be an indicator or a means of motivating workers but rather a means of selecting the best staff (Lazear, 2004). Moreover, the "free rider" theory was put forward by Weitzman (1979), explaining that a collaborator can count on other members of his team to improve the production of the firm and thus, benefit from a wage reward without having to increase his own productivity.

In the resource based theory, the firm is "*a set of resources and skills that are translated by management into strengths and weaknesses*" (Tywoniak, 1998). According to Mahut and Lafont study (2009), a firm's competitive advantage can be found in different types of resources that allow the firm to function as a whole. They seek to highlight the link between *gender* and performance. Relying on American data, Landrieux-Kartochian (2004) shows that companies that promote the presence of women in their organizations tend to achieve better financial results, improved quality of human resources management, and better performance at the level of sales teams. However, other studies quote that it is difficult to highlight the "feminization" link between managerial positions and economic performance. Indeed, the rate of women in management positions is too low to have any real influence (Kanter, 1977). In the debate about the impact of the mix of gender on the firm performance, the results in the literature are, if not contradictory, at least ambiguous. Despite the number of studies on this subject, the mentalities do not seem to change. Gender inequality in the world of work seems to be still present and the impact of gender on productivity still not proven (Laufer & Paoletti, 2010).

The *level of human capital* (through education or training) obtained by the workers may also be a lever of performance. Becker (1964) settles the human capital theory according to which education allows developing capabilities that makes workers more productive. Therefore, gaps in wages would reflect differences in levels of productivity and researchers infers the effects of human capital on performance through its effects on wages. This has been done by Rumberger (1987), who shows, based on U.S data, that the impact education on wages is positive. Therefore, he suggests that "*additional schooling is not completely unproductive, but simply that jobs constrain the ability of workers to fully utilize the skills and capabilities they acquire in school*" (Rumberger 1987). Other studies, some of which control for workers' fixed unobserved heterogeneity and/or field of education, also found that higher educated workers earn more than their fewer educated peers. This implies, according to human capital theory, that a higher level of human capital increases workers' productivity

(see *e.g.*, Battu *et al.* 1999; Dolton & Silles 2008; Duncan & Hoffman 1981; McGuinness & Sloane 2011; Sicherman 1991; Van der Meer 2006).

Among the “measurable” variables that can influence the performance of the firm, we also find in the literature the size of the firm. The main questions asked are, is the size a competitive advantage, is it making the firm more efficient or is it better not to be too big? In a general way, the size of a business is equated with cost reduction which offers a competitive advantage (Mlouka & Sahut, 2008). However, not all authors agree on the impact of size on firm performance. Indeed, in an industrial logic, large companies, by their size, are better prepared to evolve in their market (Savoie, 1994). They benefit from economies of scales (Chandler, 1962), can co-ordinate their actions (Simons, 1945) or more easily bear market losses (Williamson, 1975). In a sector characterized by increasing returns, the advantage is still for large firms, since small firms cannot be as productive as they are. Moreover, market power increases with size, which allows, for example, to be able to determinate the price (to some extent) as well as to obtain better financing interest rates from the banks (Cette & Spiro, 1992; Mlouka & Sahut, 2008). However, even if “Big is better”, “Small is beautiful”. Indeed, the advantage of SMEs lies in its flexibility and its rapid adaptation to changes in supply and demand. Moreover, the competitiveness gain generated by the size of the firm is reduced at a certain point, due to the lack of motivation of the workers, itself influence by a lack of integration in big companies (Picard, 1990; Digson & Rothell, 1991). Anyway, authors agree that there may be optimal sizes by sector but that the influence of the size on the productivity depends also on the variable retained to measure this size (Savoie, 1994).

Finally, the type of contract, which is part of the firm’s policy, can significantly influence the productivity of the firm. According to Duhautois and Gonzalez (2007), companies hire employees mainly on fixed-term or temporary contracts and their findings is that firms prefer to have “older” and stable employees and that there is no link between the performance of the firm and the temporary contract. A positive link between indeterminate contract and performance is found by the OCDE (1999). Employees with permanent contracts will be more inclined to accept new technologies within their firm and permanent contracts would allow a better climate in the firm and thereby improve productivity (Levine & Parkin, 1994). Pénard *et al.* (2000) argues that there is indeed a positive link between the quality of the employment relationship and the duration of the employment relationship. Permanent contract motivates the worker to cooperate while the fixed-term contract creates an inefficient relationship between both parties. Conversely, according to Mahy (2005), a fixed-term contract may prompt the employee to send maximum productivity signals to his employer, hoping to obtain a permanent contract. So they are ready to increase their productivity to prove their motivation and skills. We thus see through these various studies carried out by the scientists of the field that it is not obvious to obtain a clear link between the type of contract and the performance, from an economic point of view.

METHODOLOGY

2.1 Econometric Specification

In order to examine the impact of mainly human capital of workers on both measures firm performance, we implement two specifications, the first related to a measure of financial performance through the Return on Assets, the other related to a measure of economical performance, through the Value Added per worker:

$$\ln ROA_{j,t} = \beta_0 + \beta_1 Edu_1_{j,t} + \beta_2 Edu_2_{j,t} + \beta_3 Edu_3_{j,t} + \beta_4 Edu_4_{j,t} + \beta_5 Training_{j,t} + \beta_6 Blue_Collar_{j,t} + \beta_7 Wage_{j,t} + \beta_8 Size_{j,t} + \beta_9 CDI_{j,t} + \beta_{10} Male_{j,t} + \beta_{11} Nace_{j,t} + v_{j,t} \quad (1)$$

$$\ln VA_{j,t} = \beta_0 + \beta_1 Edu_1_{j,t} + \beta_2 Edu_2_{j,t} + \beta_3 Edu_3_{j,t} + \beta_4 Edu_4_{j,t} + \beta_5 Training_{j,t} + \beta_6 Blue_Collar_{j,t} + \beta_7 Wage_{j,t} + \beta_8 Size_{j,t} + \beta_9 CDI_{j,t} + \beta_{10} Male_{j,t} + \beta_{11} Nace_{j,t} + v_{j,t} \quad (2)$$

In this equation, $VA_{j,t}$ is the economical performance indicator, measured as the average value added per worker in firm j at year t ; $ROA_{j,t}$ is the financial performance indicator, measured as the return on assets of the firm j at year t . Edu_1 to $4_{j,t}$ represent the percentage of workers in the firm j at year t holding a primary level of education (Edu_1), secondary level of education (Edu_2), higher level of education (Edu_3) and university level of education (Edu_4), respectively, whereas *Training* measures the cost of training per worker spent by the firm j at year t . The variables *Male*, *Blue_Collar*, *Wage*, *Size*, *CDI* and *Nace* represent the shares of male, blue-collar, the average individual wage, the size of the firm, the type of labor contract (indefinite or fixed term contract in firm j at year t , respectively; and $v_{j,t}$ is the error term.

These equations therefore focus on the influence of workers and firms characteristics on two measures of performance.

2.2 Estimation Techniques

Equation (1) has been estimated with two different methods: pooled ordinary least squares (OLS), and a fixed-effects (FE) model. The OLS estimator with standard errors robust to heteroscedasticity and serial correlation is based on the cross-section variability between firms and the longitudinal variability within firms over time. However, this OLS estimator suffers from a potential heterogeneity bias because firm productivity can be related to firm-specific, time-invariant characteristics that are not measured in micro-level surveys (*e.g.*, an advantageous location, firm-specific assets such as patent ownership, or other firm idiosyncrasies).

One way to remove unobserved firm characteristics that remain unchanged during the observation period is to estimate a FE model. However, neither pooled OLS nor the FE estimator address the potential endogeneity of our explanatory variables.¹ Yet, there might be some cyclical ‘crowding out’, namely a process by which highly educated workers take jobs that could be occupied by less educated ones during recessions, because of excess labour supply. This assumption suggests that mean years of over-education within firms may increase as a result of a lower labour productivity (and vice versa). To control for this endogeneity issue, in addition to state dependence of firm productivity and the presence of firm fixed effects, we estimate equations (1) and (2) with the dynamic system GMM (GMM-SYS).

The GMM-SYS approach boils down to simultaneously estimating a system of two equations (respectively in level and in first differences) and relying on internal instruments to control for endogeneity. More precisely, targeted variables are instrumented by their lagged levels in the differenced equation and by their lagged differences in the level equation. The implicit assumption is that differences (levels) in (of) performance in one period, although possibly correlated with contemporaneous differences (levels) in (of) targeted variables, are uncorrelated with lagged levels (differences) of the latter. Moreover, differences (levels) in (of) targeted variables are assumed to be reasonably correlated to their past levels (differences).

2.3. Data and Descriptive Statistics

In order to estimate the relations, we rely on a Belgian dataset. Some restrictions in the dataset have to be considered. For example, we only investigate firms that register information for at least two consecutive years. Also, they have to supply some financial information about their value added, return on assets, etc. so that firms that do not display such information have to be removed from the data.

Once our sample is validated, our final sample covering the period 2006-2009 consists of an unbalanced panel of 52,204 firm-year-observations. It is representative of all small and medium-sized firms in the Belgian private sector.

¹ Expected biases associated with OLS and the relatively poor performance and shortcomings of the FE estimator in the context of firm-level productivity regressions are reviewed in Van Beveren (2012).

Descriptive statistics of selected variables are presented in Table 1. They show that the annual firm-level value added per worker represents on average 168,890 EUR. The ROA stands on average at 5.13, which means that on average firms produce 5.13€ of net income for every euro invested in assets. Concerning the workers' attained level of education, they show that the average share of primary educated, secondary educated, higher educated and university educated workers stands respectively at 12.33%, 52.13%, 22.08% and 9.46%, the rest of the sample does not reach primary education as serves as control group. Moreover, we find that around 32% of employees within firms are women, 36% are blue-collar, and firms have an average of 77 employees. Finally, 96% of employees are working under indefinite term contracts, and each firm spends on average 524€ in training per worker.

RESULTS

We first estimate equation (1) related to the financial definition of firm performance (through ROA) by OLS with standard errors robust to heteroscedasticity and serial correlation. The results presented in the second column of Table 2 mainly reveal striking results in terms of level of education. They show, on a global view, that increasing the share of workers with higher levels of education decreases firm financial performance. That is, increasing the share of workers with a primary, secondary, higher and university education by 1% is expected to affect financial performance by -0.20%, -0.15%, 0.10% and -0.06%, respectively. This result is totally the opposite when the economical performance in equation (2) is taken into account. There, the fourth column of Table 2 shows that increasing the share of workers with higher levels of education constantly increases economical performance. More precisely, increasing the share of workers with a primary, secondary, higher and university education by 1% is expected to affect financial performance by -0.12%, -0.09%, 0.24% and 0.63%, respectively.

However, these estimates suffer from the fact that time-invariant unobserved workplace characteristics are not controlled for. They can also be inconsistent due to endogeneity of some variables.² To control for these potential biases, we thus re-estimate equation (1) and (2) using the dynamic GMM-SYS estimator. The results confirm OLS investigations. That is, concerning the financial indicator of firm performance, the results show that increasing the share of higher educated workers is expected to globally decrease the firm financial performance. More precisely, firm performance is expected to constantly decrease from -0.27% to -0.31% after an increase in 1% of respectively the share of primary educated and university educated. The results related to the economical performance indicator also confirm OLS investigations, with the return to education being constantly higher with the degree hold by the workers. That is, increasing the share of workers holding a primary education degree by 1% is expected to decrease firm economical performance by -0.13%, whereas increasing the share of secondary, highly or university educated workers is expected to impact firm performance by -0.06%, 0.22% and 0.29%, respectively³.

CONCLUSION

Firms are currently behaving in an economic context surrounded by high levels of competition, higher levels of uncertainty, deep globalization, etc. Moreover, shareholders but also clients, suppliers and other external stakeholders lead the firms to be the most productive as they never be.

² The FE estimator only controls for the potential bias related to the time-invariant unobserved workplace characteristics. So, only OLS and GMM results are reported. FE results are available on request.

³ Note that we ran a test of differences between means in order to know whether a significant difference appears between the estimated parameters for each of the two subsamples, where the two parameters are not significantly different under the null hypothesis, while the two parameters are significantly different under the alternative. The results, showing that all coefficients are statistically different, are available on request.

This productivity, performance, or any other term representing firm efficiency slightly becomes the main indicator highlighting the economic health of the firm: if you are competitive and productive, you will live; if not, you will go bankrupt.

This paper investigates the impact of firms' and workers' characteristics on firm performance, with a specific focus on formal human capital, *i.e.* on the level of education attained by workers.

The originality of this paper lies in the fact that it focuses on and compares two specific definitions of performance: economical and financial, with as aim to provide evidence that readers must be careful when using both definitions.

Our results, based on Belgian data representing 52,204 firm-year observations, show that, according to the definition of performance used, the conclusions related to performance differ. That is, when relying on financial measure of firm performance, through the analysis of the logarithm of the return on assets, our results show that increasing the share of workers with higher degree is expected to decrease firm performance, the trend curve presented in Figure 1 (for OLS estimator) and in Figure 2 (for GMM estimator) showing a negative relationship between education and performance. However, when analysing the economical measure of performance, through the level of value added per worker, our results show that increasing the share of workers with higher degree was beneficial for firm performance, the trend curve being positive.

[Insert Figure 1 about here]

[Insert Figure 2 about here]

It thus seems, on the one hand, that the workers level of education has a positive impact on economic performance; the more the firms hire highly educated workers, the more it is productive. On the other hand, it seems that the effect is totally the opposite when the financial performance is taken into account: in this case, the more the firms rely on highly educated workers, the less it is performing.

These results call into question the vocabulary sometimes used by politics and other decision-makers when relying on performance indicators to evaluate firms' health. This paper has shown that according to one definition or another, policy implications may be totally different.

One must therefore be careful!

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Table 1 - Descriptive Statistics, 2006-2009

Variables	Mean	Standard deviation
Added value per worker (k€)	168.89	1,484.74
Added value per worker (ln)	4.48	0.82
ROA	5.13	21.68
Primary education (%)	12.33	0.21
Secondary education (%)	52.13	0.38
Higher education (%)	22.08	0.22
University education (%)	9.46	0.14
Number of workers	76.74	414.98
Female (%)	0.31	0.28
Male (%)	0.69	0.28
Temporary workers (%)	0.03	0.10
Indefinite term workers (%)	0.96	0.17
Blue collar workers (%)	0.36	0.38
White collar workers (%)	0.64	0.37
Cost of training per worker (€)	524.71	21.044
Number of observations		52,204

Table 2. Financial and Economical Performance (OLS and GMM estimates, 2006-2009)

Dependent variable	OLS		GMM-SYS	
	Financial Perf. ROA (ln)	Economical Perf. Value-added per worker (ln)	Financial Perf. ROA (ln)	Economical Perf. Value-added per worker (ln)
Primary education	-0.204*** (0.036)	-0.123*** (0.018)	-0.270*** (0.038)	-0.132** (0.057)
Secondary education	-0.155*** (0.021)	-0.090*** (0.011)	-0.297*** (0.026)	-0.058* (0.030)
Higher education	0.099*** (0.039)	0.242*** (0.021)	-0.280*** (0.044)	0.219** (0.098)
University education	-0.061* (0.058)	0.634*** (0.045)	-0.320*** (0.071)	0.291*** (0.109)
Other Control Variables ^a	YES	YES	YES	YES
Sig. model (p-value)	0.000	0.000	0.000	0.000
Number of observations	52,204	52,204	52,204	52,204

Notes: Robust standard errors are reported between brackets.

^aThe share of the male workers, the number of workers within the firm, the share of blue-collar workers, the share of fixed term contracts, the average wage per worker, the cost of training per worker as well as the industrial sector are included in the set of control variables.

***, **, * significant at the 1, 5 and 10% level, respectively.

Figure 1: Relation between financial and economical performance according to OLS estimator

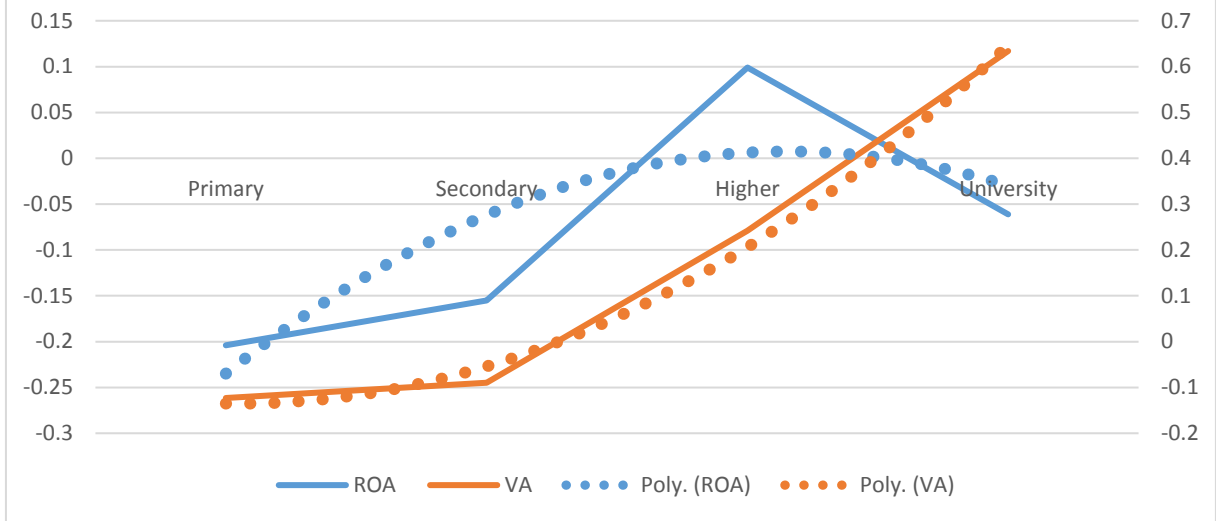
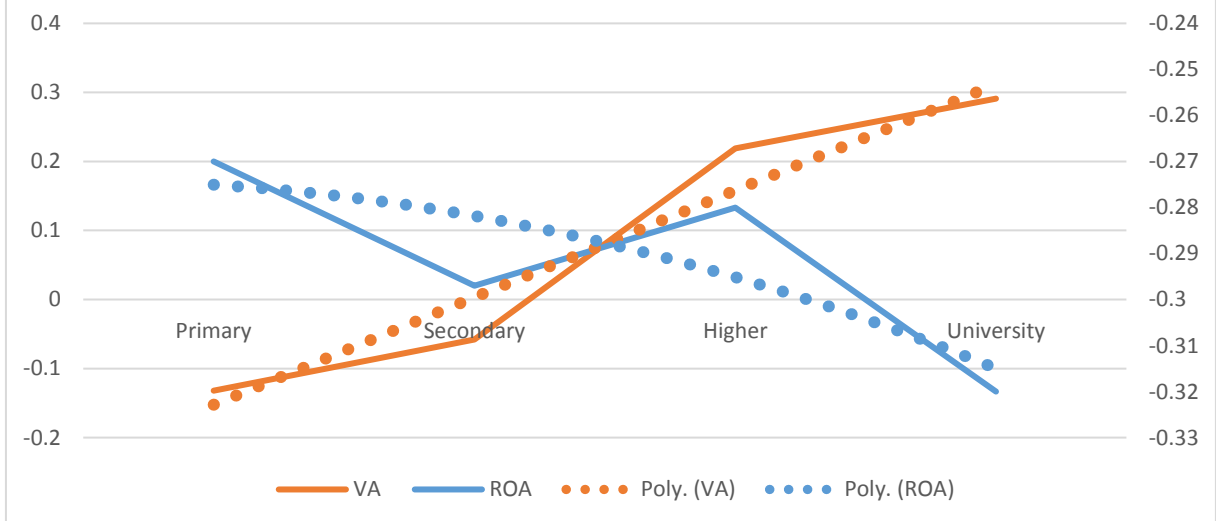


Figure 2: Relation between financial and economical performance according to GMM estimator



TRAINING “GREEN AMBASSADORS” IN THE COMMUNITY- ACTION LEARNING COURSE

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ABSTRACT

The action learning course is an academic course which involves academic learning and social activities. The courses deal with processes and social challenges, reveal different ideologies, and develop critical thinking and pragmatic ideas. Students receive course credits and a grade for being part of such courses. Participating students enroll in courses that involve action and activities to engage in the experiential learning process, thereby creating a dialogue and cross-fertilization between being taught in the classroom and experiencing the reality in the real world. A learning experience includes meeting with social organizations, institutions, and state authorities and carrying out practical work with diverse populations. Through experience, students strengthen their academic skills, formulate ethical attitudes toward reality, develop professional and civilian perspectives, and realize how they can influence their surrounding in the present and the hereafter.

This course is the beginning of a paradigm shift regarding energy usage in the modern society in Israel. The objective of the course is to expand worldwide and train the first and second-graders, and even pre-schoolers, in a wide scope to increase population awareness rate, both in Israel and all over the world, for a green future.

Keywords— air pollution, green ambassador, recycling renewable energy.

INTRODUCTION

Over the years, there has been an increase in demand for electrical power. Such demands require the fossil-fuel power stations to burn more fuel. This causes heavy air pollution, which is detrimental to the environment and our health. We are rapidly approaching the point of no return in terms of air pollution. This is reflected in damage to the marine environment (such as fish, corals, sea water pollution) and groundwater contamination, a drastic 5 °C increase in global temperature, rainfall pollution and more. The conclusion is clear, the world population must unite and make a paradigm shift in order to significantly reduce the damage for electrical power worldwide. Such an effort must be made by the entire world population and not just by individuals. To address the problem, a course has been set up at the Holon Institute of Technology (HIT). The course is named “Green Ambassadors”, and its goal is to educate the next generation in energy efficiency. The course is divided into 7 groups; each group contains 2 to 3 students, whose aim is to provide information on energy efficiency to the school's first and second graders. The teams of first-graders and second-graders from “Revivim” school in Holon have been chosen to take part in the project. As a part of the course, the students of HIT give the school pupils several 90-minute lessons, focused on energy efficiency and ways to save energy. Those methods are described and detailed using demonstrations of simple every-day actions, such as turning off the light when leaving a room and opening the shades in daytime. In order to demonstrate the subject in a practical and experiential way, the students use a mobile laboratory. The laboratory contains several demonstration kits on various subjects, such as renewable energy, air pollution, waste and recycling, soil ecology and water sector. During the class, the children perform several experiments independently while supervised by HIT students. Using these kits, the students demonstrate the principles of energy efficiency in several ways, this helps to lead the children to the conclusion that energy efficiency can be achieved using simple ways and tools and confidence to preserve the knowledge of how to keep the

environment safe. Such confidence enables the children to be more vigilant in protecting the environment where they live and gives them the moral privilege and the right to warn against environmental damage and energy waste. Using a combination of both theoretical and practical studies, the issue is better preserved in the students' memory. It provides knowledge for future use, even after the lesson. By that, the school pupils are becoming "Green Ambassadors" who want their surroundings to become more energy efficient. This course is the beginning of a paradigm shift regarding energy usage in the modern society in Israel. The objective of the course is to expand worldwide and train the first and second-graders, and even pre-schoolers, in a wide scope to increase population awareness rate, both in Israel and all over the world, for a green future.

EARLY CHILDHOOD EDUCATION

These days, most schools in Israel and throughout the world are appraised by their ability to transfer a large quantity of information to the students over a 12-month period. As the amount of theoretical material is very large and the time teachers have to teach is minuscule, it is nigh impossible to ensure that students understand the material during the lesson. Such an issue of teaching a lot during insufficient time causes teachers to develop certain teaching patterns during the inaugural years of their teaching careers. Such a pattern is built by training teachers during their teaching studies. When a teacher approaches the class for the first time, he/she uses this specific pattern. If such a pattern does not work, the teacher changes and improves it according to how he/she supposes it will be more efficient in class. The pattern holds in the teacher's mind and nature and defines a path to his/her future lessons [1]. As teachers face time pressures, it is difficult for them to change and modify this pattern. Moreover, each individual is different, so many pupils fail to absorb the study materials—an aspect that affects the pupil later in his/her learning. Due to the lack of time and erosion of teachers, teachers' lectures are delivered in a monotonous, tedious, and even destructive manner in terms of curiosity and resourcefulness of the child [2].

Donald A. Schön, father of the training systems and conceptual learning in organizations and communities, once said that "a practitioner's reflection can serve as a corrective to over-learning. Through reflection, he can surface and criticize the tacit understandings that have grown up around the repetitive experiences of a specialized practice, and can make new sense of the situations of uncertainty or uniqueness which he may allow himself to experience" [3].

Based on the 2012 results of the PISA commission, the Organization for Economic Cooperation and Development (OECD) recommended investing more effort and focus on the improvement of educational programs, teacher trainings, and a coherent system of teaching and professional improvement to enhance the quality of teaching and knowledge [2].

Accordingly, many researches have demonstrated that a large variety of teaching techniques have been developed for use with pre-schoolers and first graders. Most research indicates that four- to six-year-olds have the highest concentration level during the first 20 minutes of the lesson, after which their level of concentration decreases drastically. In order to maintain a pupil's high concentration level, the instructor has to excite the students through experiential activities. Such efforts are intended to draw pupils out of their regular zone of reading, writing, or listening and induce them to exercise an activity of the same theme. Doing so violates the students' routine and allows the instructor to verify understanding through a game; thus, pupils can return to a high concentration level in order to continue and succeed in their studies.

Environmental Education

According to Ruth Wilson (1994), teaching environmental education in early childhood includes the growth of a sense of curiosity as well as appreciation of the beauty and mystery of the natural world. Education also includes developing problem-solving skills and developing an understanding and appreciation of the world around us. The goal of environmental education is to develop a population that recognizes environmental topics. Studies have shown that most individual positions are formed at a very early stage of life, meaning the teaching environment in early childhood is of great importance [4].

Advances in elementary school curriculums supply theoretical lessons about energy efficiency; such an approach does not hold much information according to the topic, indicating that younger pupils' level of knowledge is really depressed. In order to ensure effective learning about energy efficiency, students—especially younger age groups—must be taught utilizing a short piece of theoretical lesson that only offers the

fundamentals and provides experiential experiments that illustrate scientific principles. Based on a teaching activity that motivates students to analyze and research the subject of energy efficiency, it is possible to search for answers and solutions about the environment. Such activity gives even the weakest students the motivation to study the subject in a fun way [5] and allows the students to learn at different levels—namely, hearing, feeling, and sight—thereby providing them with a practical and theoretical understanding of the material that, by the end of the process, is stored in their long-term memory for future use in their everyday lives. After the lesson, the pupils become representatives among their family and friends circles. Such representation is a significant persuasive power related to environmental education for pupils' circles in their various institutions, making it possible to spread the knowledge and information to a big portion of the population in a short time.

Awareness and Education for Change

Patrick Ness, the author of *A Monster Calls*, described the world in which we live as follows:

"One hundred and fifty years ago, the monster began, this country had become a place of industry. Factories grew on the landscape like weeds. Trees fell, fields were up-ended, rivers blackened. The sky choked on smoke and ash, and the people did, too, spending their days coughing and itching, their eyes turned forever toward the ground. Villages grew into town, towns into cities. And people began to live on the earth rather than within it" [6].

Over the years the world population has evolved and reached advanced achievements in a technological subject. Along with the development of technology, considerable significant increases in pollution have mainly been due to smoke emissions into the air and sewage water poured into water reservoirs. Most smoke emissions from industrial plants spew greenhouse gases and acids, thereby leading to increases in global temperatures and the oxidation of rainwater. Such pollution has dangerous health implications for humans, animals, and plants. This pollution has increased rapidly over the years to the point of no return. The conclusion is clear: The production of energy from fossil fuel pollution is increasing, creating a substantial risk to the environment and human growth.

Studies on the subject indicate that man alone cannot change the state of air pollution. To address pollution issues, the world population must unite and make a paradigm shift in the way in which they live. Therefore, there is a need to educate the community on the principles of environmental protection and energy efficiency. At the same time, there is a demand to acquire renewable energy sources that do not pollute and are environmentally friendly [7]. To this end, the UN established its climate change commission, called the Conference of the Parties (COP), which aims to bring about global agreement on the reduction of climate change. This agreement includes at least 55 major countries representing at least 55 percent of global greenhouse gas emissions [8]. The Israeli government approved the COP in 2002, encouraging the development of technologies for the effective utilization of renewable energy to cut dependence on imported fossil fuels and reduce environmental pollution.

HOLON INSTITUTE OF TECHNOLOGY

The Holon Institute of Technology (H.I.T) focuses on teaching exact sciences, engineering, educational technologies, technology management, and design. It performs theoretical and practical research. The institute trains scientists, engineers, managers, and designers. To prepare students for these positions, it promotes close cooperation with the industry.

Environmental involvement and contribution to the society are also reflected by the promotion of environmental protection. Consequently, the Ministry of Environment authorized HIT as a green campus. In this context, activities are used to teach students about energy efficiency, including the recruitment of a given budget for scholarships and grants for students acting in the sphere of environmental community, as well as courses involving the community in providing theoretical and practical knowledge presented through exciting activities that highlight the importance of energy efficiency and the growth of green systems.

Social Involvement Unit

One of the many goals of the Social Involvement Unit, which is a part of Dean of Students Office, is to promote social involvement of students and staff in the community. It also promotes weak applicants and students at the institute by offering mentoring, tutoring, emotional support, guidance to learning, and adjustments in school. Over the years, the unit has worked in many education and welfare arenas to promote immigrants, youth, and more. The Social Involvement Unit serves as a professional center to encourage and promote the social impact of students and staff and to leverage knowledge, expertise, and human capital for the benefit of the community through social involvement projects and course actions involving meaningful activities.

Action Learning Course

The action learning course is an academic course which combines academic learning with social activities. These courses deal with processes and social challenges, reveal different ideologies, and develop critical thinking and pragmatic ideas. Students receive course credits and a grade for being part of such course. Participating students enrol in courses that involve action and activities to engage in the experiential learning process, thereby creating a dialogue and cross-fertilization between being taught in the classroom and experiencing the reality in the real world [9, 10]. A learning experience includes meeting with social organizations, institutions, and state authorities and carrying out practical work with diverse populations. Through experience, students strengthen their academic skills, formulate ethical attitudes toward reality, develop professional and civilian perspectives, and realize how they can influence their surrounding in the present and hereafter.

TRAINING "GREEN AMBASSADORS" IN THE COMMUNITY

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Under the guidance and supervision of Dr. Hen Friman, "HIT" has built an innovative course that combines action and activities to increase the awareness and accessibility of the community in an experiential way [6, 8]. The end goal is to create "Green Ambassadors"—children with a high level of environmental awareness. This course is divided into two parts. The course methodology (Fig.1), first part, focused on frontal teaching, delivers knowledge from extensive environmental fields to students. The second part of the course shows how the theory becomes practical and concrete. At this stage, students are asked to introduce to the first- and second-graders of "Revivim" School in Holon a lesson of 90 minutes focused on presenting the environmental issues: Energy efficiency (saving), solar energy, energy conversion, air pollution, water pollution, waste, recycling.

In whole-class instruction, only one person can speak at a time, and shy or slow-learning pupils may be reluctant to speak at all. When pupils work in groups of two to four, however, each group member can participate extensively, individual problems are more likely to become clear and to be remedied, and learning can accelerate. With justification, co-operative learning has become widespread. Not only can it increase academic achievement, but also it has other virtues. By working in small groups, pupils learn teamwork, how to give and receive criticism, and how to plan, monitor and evaluate their individual and joint activities with others. It appears that modern workplaces increasingly require such partial delegation of

authority, group management and co-operative skills. Like modern managers, teachers may need to become more like facilitators, consultants and evaluators, rather than supervisors (Fig.2).

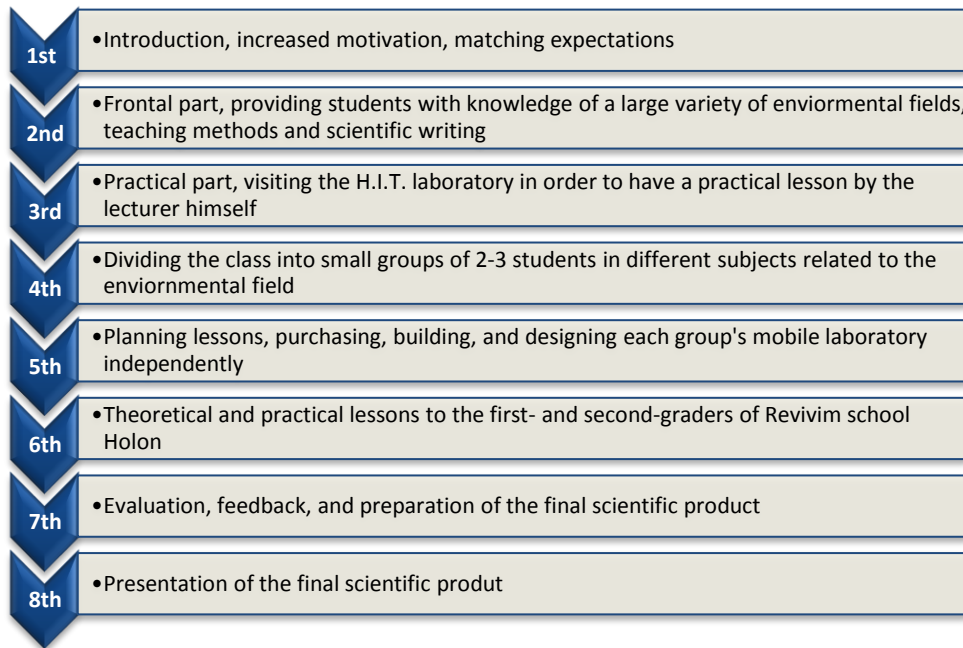


Fig.1: "Green Ambassadors" methodology



Fig.2: Presenting the principles (a) Hydroelectric energy

(b) Solar energy (c) Wind energy (d) Energy from organic matter

These lessons serve as a milestone for the students, who can pass their knowledge on to the pupils. By the end of the course, the pupils have been authorized by HIT as "Green Ambassadors" and receive certification giving first- and second-graders the obligation to act in accordance with rules to increase renewable energy and energy efficiency and protect the environment, such as turning off lights when leaving the room, shutting all windows when the air conditioner is operating, opening the shades to let in sunlight instead of switching on lights, and turning off the water when brushing their teeth. In addition, pupils have to present and disseminate the importance of the issue to their surroundings. The last stage of the course is an efficiency test conducted by statistical examination of the students' answers to questions on the questionnaire presented to students as a related trivia game show.

Evaluation of teaching efficiency

The action learning "Green Ambassadors" course is experimental method of teaching, it is important to know the pupils appreciation for it. Each pupil fills an anonymous computerized feedback questionnaire at the end of the course. In this questionnaire they are asked about the overall satisfaction from the new experimental teaching method (Fig.3).

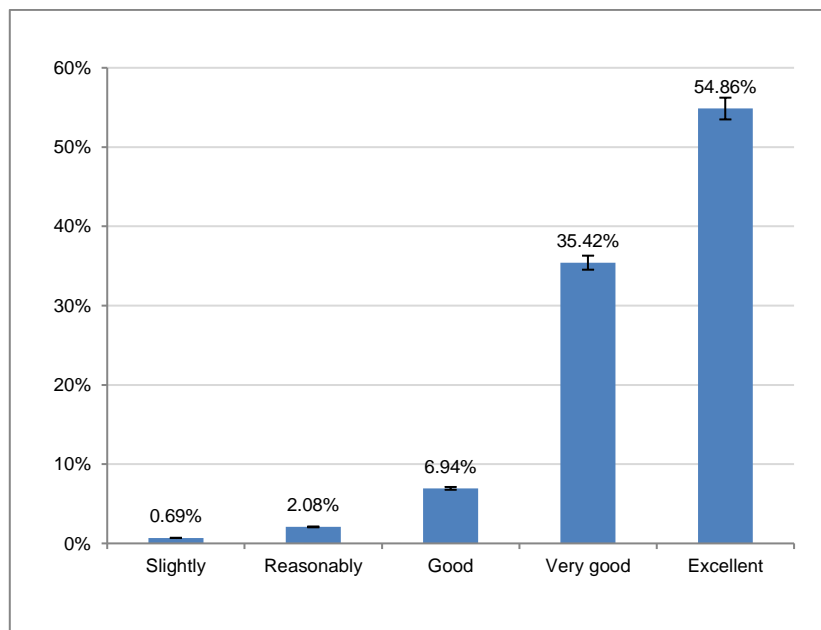


Fig.3: Pupil general satisfaction

CONCLUSION

This paper presents a new learning program at the Faculty of Electrical Engineering. The program gives the students technical and practical aspects of energy use and energy efficiency and also deals with minimizing the environmental impacts of energy use, as well as with energy economy and environmental policy. The action learning course Training "Green Ambassadors" in the Community powered by the Social Involvement Unit HIT that in this way we can contribute to society and future generations.

ACKNOWLEDGMENTS

We would like to thank the Higher Education Council for budgeting and supporting this course. To the Students who took part in the course. Last but not least, we want to thank "Revivim" School for the opportunity to take a part in the next generation of education for a better and cleaner environment.

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THE IMPACT OF NATIONAL CULTURE ENTREPARENURIAL TENDENCIES THROUGH THE MEDIATION EFFECT OF SOCIAL INTELLIGENCE

A STUDY ON UNIVERSITY STUDENTS

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Abstract

Today, culture is one of the most important sociological concepts used to understand and explain societies. The aim of this study is to reveal the impact of national culture on entrepreneurship tendencies through the mediation of social intelligence. Our study sample consists of students who are studying Economics and Administrative Sciences at undergraduate level in 3 different universities; Mehmet Akif Ersoy University (MAKU), Akdeniz University (AU) and Süleyman Demirel University (SDU) that are located at the west mediterranean region of Turkey. Demographic variables have been analyzed by means of SPSS 16.0. Variables in the research model have been analyzed by means of Structural Equation Modeling in AMOS 16 software. When these findings are evaluated, it can be seen that social culture influences entrepreneurship and social intelligence significantly in a positive way. If social intelligence is used as a mediaton variable in a model where social culture influences entrepreneurship, the results are more pronounced.

Key words: Entrepreneurial Tendencies, National Culture, Social Intelligence, University Students

Introduction

Entrepreneurship is one of the most important powers from economic and social aspects in our age. It has become such an important power as a result of increasing attention in entrepreneurial activities, which is an indicator of the fact that business and technological developments are continuously shaping the world toward transformation (Demirel and Tikici, 2004: 50). Social culture has power to influence individuals' preferences, tendencies, and behaviours. There is a close relationship between entrepreneurship and the social structure in which the individual lived and grew up. Social structure, technological inflastructure, economic activities and education level influence individuals too much and shape their thought structure (Ersoy, 2010, 73). Any culture cannot be defined as a culture that supports or opposes entrepreneurship. The numerous subcultures, consisting the culture as a whole, can create environments that can affect entrepreneurship positively or negatively (Hisrich and Peters, 2002: 54).

This study aims to identify if there is an effect of national culture as an independent variable on individuals' entrepreneurial tendencies. This context suggests that social intelligence may also have a regulatory influence within this equation because the national culture can not be represented equally in every individual in a society. One of the reasons for this inequality is the level of social intelligence that individuals have. If social intelligence is defined as the ability to understand any social context or event, this fact will be more pronounced. Therefore, social intelligence is expected to play a mediating role in the influence of national culture on each individual's entrepreneurial tendency. In this context, this study aims to reveal mediating role

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of social intelligence statistically. To achieve this, the literature of national culture, entrepreneurship, and social intelligence are examined and then methodology section follows.

1. National Culture

According to Namenwirth and Weber (1987:8), culture is a thinking system that reflects the composition of individuals' way of life. Huntington suggested that culture's definition varies depending on the discipline and its context. According to him (2000: xv), culture represents intellectual, musical, artistic and literal products which a society owns. Schein (2010: 2) claims that there are various cultural levels composing culture rather than a single culture. In this sense, culture can be divided into four levels: macro-culture, organizational culture, subculture and micro-culture. The most prominent and widespread social culture measure is Hofstede's culture model. The model emerged after a far-reaching research among employees of a global company in 40 different countries between the years of 1967-1973. As a result of this research individualism and masculinity dimensions emerged. Later on, other cultural dimensions; power-distance, masculinity versus femininity and uncertainty-avoidance have been determined by further studies (Hofstede 1983: 46).

Power distance explains to what extent the less powerful people in a society expect and accept the unequal power distribution. In countries where power distance is high, people believe that there is a remarkable emotional distance between them and their managers. (Hofstede and Minkov 2010: 61). In an individualist society, individuals tend to prioritise their own interests while individuals in a collectivist society are strongly connected to each other. (Hofstede and Minkov 2010: 92). In masculine societies gender roles appear to be distinct. Men are assertive and materialistic, where women are more caressing, discrete, and focused on their quality of life. Whereas the members of a feminine society are inclined to be more caressing discrete and focused on life quality regardless of their sex (Hofstede and Minkov 2010: 140). Uncertainty avoidance stands for the degree to which people perceive any ambiguity as threat. However a society with lower uncertainty avoidance score, tend to have psychologically stronger individuals against uncertain and unknown situations. (Hofstede and Minkov 2010: 191).

Hofstede mentioned a fifth dimension as long-term orientation vs short term orientation which is linked to the choice of focus for people's efforts: the future or the present and past (Hofstede, 2011: 8). Since this new dimension had not been experienced before, many scholars studying culture including Hofstede thought that it could lead to a cultural bias. This fifth dimension was discovered by Michael Harris Bond. He worked with several Chinese social researchers in order to create a list of key values for Chinese people. As a result of this collaboration, a Chinese questionnaire consists of 40 questions was created and translated into English. This questionnaire was issued to 50 male students and 50 female students in various disciplines from each of 22 countries selected from five continents (Hofstede and Bond, 1988: 15).

The findings of this study were statistically analyzed and led Hofstede to include the new fifth dimension, Long Term Orientation versus Short Term Orientation into his model. This new dimension was originally called Confucian dynamism. Finally, Michael Minkov called the sixth dimension as Indulgence versus Restraint which is linked to the gratification versus control of basic human desires related to enjoying life (Ozdagli, Penez and Koca: 38-39). This new dimension is weakly negatively correlated with Long versus Short Term Orientation dimension and deals with the aspects not taken into consider by other dimensions, however, it is known from literature on "happiness research" (Hofstede, 2011: 15).

2. Entrepreneurship Tendencies

In the daily life, an enterprise indicates moving, starting and taking a job, whereas entrepreneur specifies a person who is involved in such a situation. These concepts are considered in an economic framework. In this framework, entrepreneur is the person who manages supply and demand, and seeks the market whereas entrepreneurship is perceived as utilization of resources (Aytac and Ilhan, 2007: 102-103). According to Drucker (1987: 2), entrepreneur organizes resources that can create a new prosperity to create order in the fuzzy

and changeable world. (Demirel and Tikici, 2004: 50). Considering in terms of entrepreneurship, self-confidence, tendency to independence, rationality, internal audit, and focus etc are dominant values in the individualist cultures. It is clear that successful entrepreneurs must have these values. Therefore, it is a natural consequence that tendency to entrepreneurship is high in the individualist cultures and there are many entrepreneurs in these societies (Carikci and Koyuncu, 2010: 7). Determinants of entrepreneurship are investigated under three factors which are individual, environment and firm approaches (Korkmaz, 2012: 212; Keles et al., 2011: 109-111; Ozden et al., 2007: 5-7).

The individual approach explains entrepreneurs by taking demographic and psychological characteristics of them into account and specifies family, education, personal values, age, work experience, and role models as factors affecting entrepreneurship (Korkmaz, 2012: 212). The environmental approach is influenced by cultural, social, economic, and technological conditions (Keles et al., 2011: 11). In addition, one of the important factors in entrepreneurship is entrepreneurial activities that are focused by the firm approach. Psychological characteristics affect tendency to entrepreneurship. These characteristics are examined in the following 6 dimensions;

1. In 1961, *Need for achievement* is introduced by McClelland who claims that entrepreneurs need high level of achievement and successful ones will prefer situations that are characterized by individual responsibility, moderate (not high) risk-taking, knowledge of results of decisions, novel instrumental activity, and anticipation of future possibilities (Fayolle and Klandt, 2006: 38).
2. *Locus of Control* reflects an individual's perception about the rewards and punishments and reflects the belief whether s/he can control the events in his/her life (Bozkurt, 2007: 100).
3. *Risk Taking Propensity*: Tendency to take risk when a person faces risky situations (Keles et al., 2011: 109).
4. *Tolerance of Ambiguity*: It is seen that individuals with a low tendency to avoid uncertainty care about information, tend to interpret clues, have great ability to transfer information; and be more sensitive to the internal characteristics of people (Bozkurt, 2007: 100).
5. *Self Confidence*: An entrepreneur must believe that s/he can achieve the goals s/he has set. In other words, if the entrepreneur respects himself/herself in his/her own business and believes that s/he has the ability to do the job, then s/he can be successful (Bozkurt, 2007: 100).
6. *Innovativeness*: It is a tendency to create new products and new methods, enter new markets, establish a new organization structure, and have a will to achieve them (Keles et al., 2011: 110).

3. Social Intelligence

Although John Dewey (1909) was recorded as the first psychologist claiming that 'ultimate moral motives and forces are nothing more or less than social intelligence – the power of observing and comprehending social situations' (p.43), the work of Edward Thorndike on social intelligence (SI) in 1920 became a starting point for the other publications. Many of these early studies focused on describing, defining and assessing socially competent behaviour (Bar-On, 2006). In 1920, E.L. Thorndike defined SI as "the ability to understand and manage men and women, boys and girls—to act wisely in human relations". Ever since, both aspects of SI—the ability to understand others and the ability to accomplish interpersonal tasks—have been studied (Barchard, 2001). Our daily lives are formed by web of social interactions (Catherine and Sai, 2010). In this sense, Karl Albrecht describes SI as the ability to get along well with others and also to have them to cooperate with you. Sometimes it is simply referred as "people skills". Goleman and Boyatzis define SI as "a set of interpersonal competencies built on specific neural circuits that inspire others to be effective" (Goleman and Boyatzis, 2008). To summarize, social intelligence involves being aware of social situations and having the skill to perceive and interpret the situations accurately that leads appropriate behaviours. In other words, it is ability that provides effective interactions with others (Crowne, 2009).

Throughout the history of the social intelligence researches, it has been attempted to find out whether social intelligence was a distinct construct from general intelligence. Sternberg (1985, 2002) argues that there are other dimensions of intelligence; emotional intelligence, social intelligence or practical intelligence, in other words “street smarts” which indicate that one is not limited or should not be assessed by only their academic intelligence or IQ (Rahim, 2014). Keating (1978) conducted factor analysis yet couldn't find identifiable social factor while Ford and Tisak (1983) found both convergent and divergent validity for SI. Furthermore, SI emerged as a better predictor of a behavioural measure of social effectiveness than was academic intelligence. In general, researchers agree that SI may serve as a predictor of behaviour (Kobe, Reiter-Palmon, and Rickers, 2001). Gardner's (1983; 1993) theory of multiple intelligence represented a distinction between an interpersonal domain of intelligence and other types of cognitive abilities. Interpersonal intelligence in his theory refers to the extent of one's capacity to respond appropriately to the moods, temperaments, motivations and desires of others (Kaukiainen et al., 1999).

Social intelligence had mostly been measured by self-reports such as the Six Factors Test of Social Intelligence (O'Sullivan and Guilford, 1966). However, self-reports validity had always been questionable especially when the measured trait is not socially desirable. Therefore, a peer-estimated SI scale, called Peer-Estimated Social Intelligence (PESI), was designed by Kaukiainen, Björkqvist, Österman, Lagerspetz, and Forsblom (1995). The questionnaire includes 10 items measuring four components of social intelligence; person perception, social flexibility, accomplishment of one's own social goals and behavioural outcomes. This scale has an indirect way of evaluating one's social intelligence level by asking the participants to rate their same-sex classmates' behaviours.

The complexity of current SI measures and definitional variety have limited the use of SI and its applications in the field. In this regard, The Tromsø Social Intelligence Scale (TSIS) (Silvera, Martinussen and Dahl, 2001) aimed to design a multi-facet SI scale by deriving an agreed-upon definition and testing SI items. The scale consists of 3 factors and 21 items. The components of the measure were labelled as Social Information Processing (SIP), Social Skill (SS) and Social Awareness (SA). SIP measures the ability to understand or foresee people's feelings, thoughts and wills in a given social context. SS measures to what extent one can easily establish new relationships and adapt themselves to a new social environment. SA dimension measures the degree of one's awareness about social situation and people's behaviours as well as the ability to act appropriately. Another methodology which represents psychometric approach for measuring SI is measuring social intelligence- The MESI methodology (Frankovský and Birknerová, 2014) from which 3 SI factors were extracted; Manipulation, Empathy and Social Irritability. In this scale people who have high score in Manipulation have the ability to persuade others to do almost anything, while empathy represents being able to recognize intentions, feelings and weaknesses of others. Finally, Social Irritability stands for being nervous in contact with other people.

Though there are not much empirical research on the relationship between social intelligence and entrepreneurship, a couple of studies have been conducted among students. According to the findings of a study which had been conducted among 236 newly graduated university students in Istanbul, a significant and positive relationship between social intelligence-with its three components- and entrepreneurial intention was found out (Aykol and Yener, 2009). In another study which was conducted among 240 students from Shiraz technical high school in Iran, it was revealed that social intelligence of the students was significantly and positively correlated to their entrepreneurship skills and creativity (Zahra, Ahmadreza and Abas, 2015). In both studies TSIS was used as a measurement instrument. Similarly, the findings of another research conducted among managers in small and medium businesses in Iran indicate that there is a significant relationship between social intelligence with entrepreneurship tendency of managers in small and medium businesses (Pordanjani et al., 2015). According to a qualitative study conducted among 25 managers working in Germany,

social intelligence level of entrepreneurial leaders has a substantial impact on the encouragement of employees to behave entrepreneurially (Marecki, 2014).

4. Research Methodology

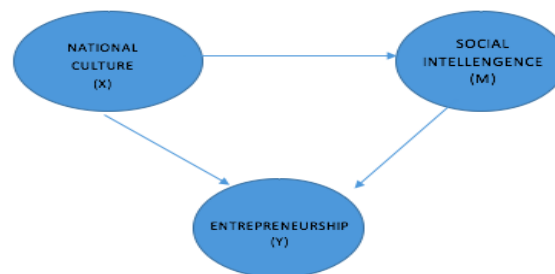
4.1. Research Aim and Sample

The aim of this study is to reveal the impact of national culture on entrepreneurship tendencies through the mediation of social intelligence among students studying at faculty of economics and administrative sciences in 3 different universities; Mehmet Akif Ersoy University (MAKU), Akdeniz University (AU) and Süleyman Demirel University (SDU). These 3 universities are located at the west mediterranean region of Turkey. Research data was collected through face to face survey method and convenience sampling technique in fall term within the academic year of 2015-2016. A 5-point likert scale was used (ranging from 1=Strongly disagree, 2=Disagree, 3=Neutral, 4= Agree, 5= Strongly agree) in the survey. 717 students in total have participated in the research; 230 from AU, 239 from SDU and 248 from MAKU. Demographic variables have been analysed by means of SPSS 16.0 statistical software, while the variables in the research model have been analysed by means of Structural Equation Modelling in AMOS 16 software. The survey consists of 3 different scales; Lamba, Ozdasli (2015) including 36 items, entrepreneurship scale including 36 items developed by Yılmaz and Sünbül (2009) and Tromso Social Intelligence Scale (TSIS) including 21 items developed by Silvera et al. (2001).

4.2. Research Model

The model of the research follows a pattern called descriptive or conditional. In such models, variables and relations between variables are defined and some predictions can be made based on these definitions (Kurtuluş, 1996: 310).

Fig. 1. Research Model



In the research model, it was assumed that "social culture influences social intelligence, social intelligence influences entrepreneurship, social culture also influences entrepreneurship, and social intelligence is assumed to have a mediating effect in changing entrepreneurship tendencies". Table 1 shows our hypotheses.

Table 1. Hypotheses

H1.1:	National culture has a positive and significant effect on social intelligence
H1.2:	National culture has a positive and significant effect on entrepreneurship
H1.3:	Social intelligence has a positive and significant effect on entrepreneurship
H1.4:	Social intelligence causes mediation between entrepreneurship and national culture

4.3. Findings

Table 2 shows sample characteristic of the participants. The sample consists of 39.9 % (286) females and 60.1 % (431) males. Of 717 total respondents, 49.5 % (355) study management, 30.8 % (221) study economics and

19.7 % (141) study public administration. Among the 717 respondents, 56.6 % (406) study their major in the day time while 43.4 % (311) study their major in the evening. In addition, monthly income of parents show that many survey participants' family income is under 2,000 Turkish Lira. The frequency of father's employment status indicates that 56.2 % (403) of participants' father work as an employee in a public organization, 30.4 % (218) work as an employee in private enterprise, 11.0 % (79) work as an employer and 2.4 % (17) does not work.

Table 2. Demographic Samples

Category		N	%
Gender	Female	286	39.9
	Male	431	60.1
Department	Management	355	49.5
	Economics	221	30.8
	Public Administration	141	19.7
Year	1	293	40.8
	2	232	32.3
	3	90	12.5
	4	2	0.3
Education Type	Daytime	406	56.6
	Evening	311	43.4
Residency Type of Parents	Village	210	39.3
	Small Town	278	38.8
	City	229	31.9
Monthly Income of Parents (Turkish Lira)	Under 2000	448	62.5
	2001-2999	213	29.7
	3000-3999	35	4.9
	4000 and over	21	2.9
Father's Employment Status	Employee in a Public Organization	403	56.2
	Employee in Private Enterprise	218	30.4
	Employer	79	11.0
	He doesn't work	17	2.4
Mother's Employment Status	Employee in a Public Organisation	550	76.7
	Employee in Private Enterprise	141	19.7
	Employer	20	2.8
	Housewife	6	0.8
Total		717	100

Figure 2 shows mediation effect in sub-dimensions and regression results among 12 sub-dimensions in national culture, 3 sub-dimensions in social skills, and 6 sub-dimensions in entrepreneurship. Goodness of fit statistics should be taken into consideration in order to evaluate the research model as a whole. Goodness of fit statistics can be used to decide whether we can accept the the model or not by using a number of limit values (Joreskog ve Sorbom, 1993: 122-126).

Fig. 2. Testing Mediation Effects by Using Latent Variables in Path analysis

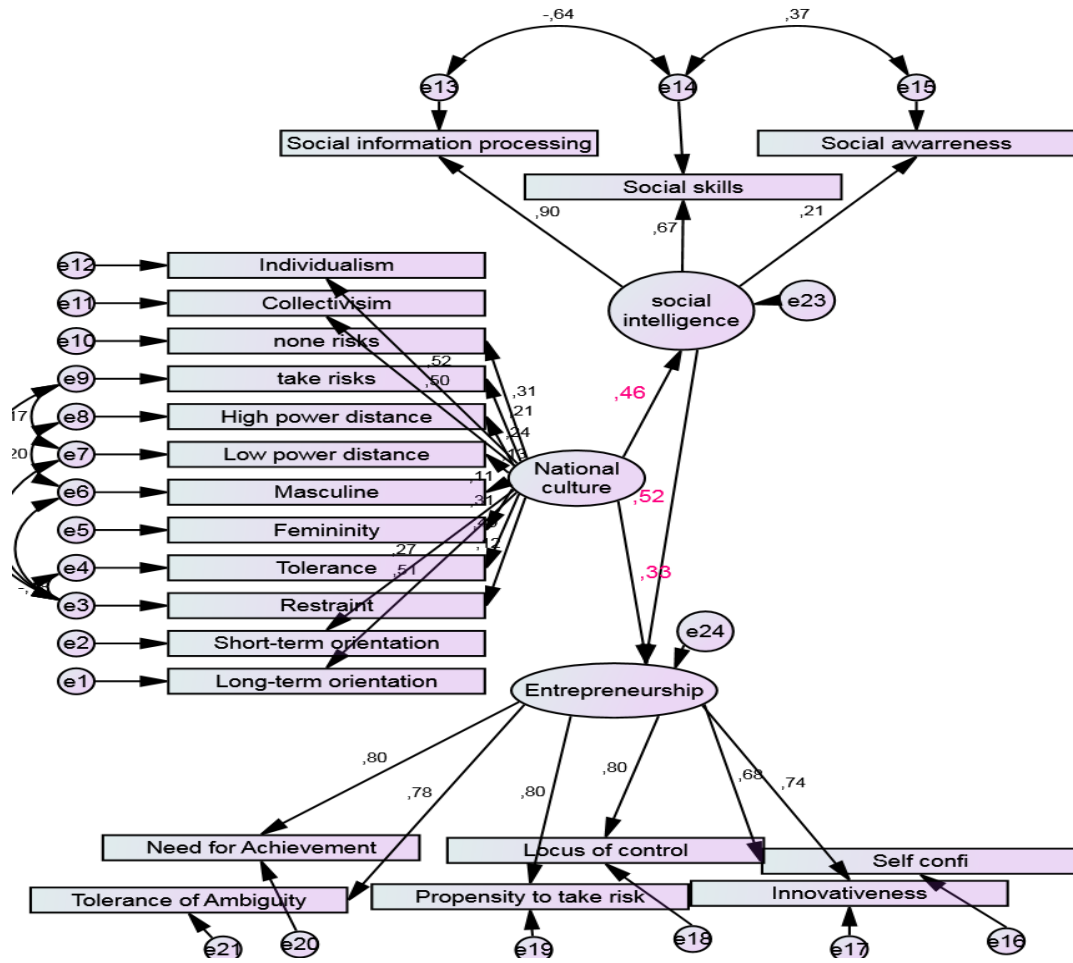


Table 3. Goodness of Fit of Path Analysis with Latent Variable

CMIN/df	RMSEA	GFI	NFI	RMR	IFI	CFI
3.305	0.053	0.931	0.872	0.752	0.907	0.906

CMIN/df values of our study is 3.305, confirming that our model is good to analyze. When Wang (2002) eligibility criterion is examined, the fit is very good if GFI, CFI, RFI, NFI, NNFI's values is 0.90 and AGFI's value is 0.80 (Jöreskog ve Sörbom, 1993). If RMSEA (Root-Mean Square Error Aproximation) value is equal to or less than 0.05, it shows that it is a pretty good fit. If the value is between 0.08 and 0.10, it is an acceptable fit. However, if the value is greater than 0.10, it reveals that it is poor fit. Table 3 shows that RMSEA is 0.053 for our study, it means that our model is a good fit.

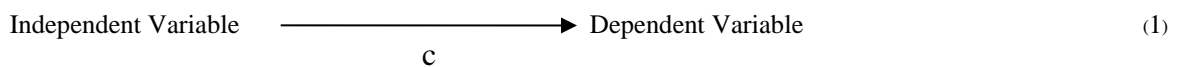
By utilizing this statistical information, we can say that CMIN/df, RMSEA, GFI, RMR, IFI, CFI are acceptable levels when the entire models are evaluated (e.g. Table 3). Table 4 indicates predictive power of national culture on social intelligence and entrepreneurship. According to these findings, the results of the tested hypotheses are as the following: As can be seen in Table 4, national culture predicts social intelligence ($\beta=.456$, $p=.$ ***) and entrepreneurship ($\beta=.333$, $p=.$ ***) at a significal level. This means that a change of 1 unit in the national culture predicts approximately 0.46-unit change in the social intelligence and 0.33-unit change in the entrepreneurial dimension.

Social intelligence has a coefficient of 0.52 ($\beta=.525$, $p=***$) when we regress entrepreneurship dimension on it. When we evaluate these findings, it can be seen that national culture has a significant and positive effect on entrepreneurship and social intelligence. In addition to this, entrepreneurship is more affected when social intelligence is used as a mediating variable.

Table 4. Path Analysis with Latent Variables

	β	S.E.	C.R.	P
Social Intelligence <--- National Culture	,456	.206	8.246	***
Entrepreneurship <--- Social Intelligence	,525	0.068	3.644	***
Entrepreneurship <--- National Culture	,333	0.143	4.153	***
Long-term orientation<--- National Culture	,510			
Short-term orientation <--- National Culture	,268	0.090	5.829	***
Restraint<--- National Culture	,117	0.082	2.648	0.008
Tolerance<--- National Culture	,492	0.099	9.082	***
Femininity<--- National Culture	,308	0.087	6.542	***
Masculine<--- National Culture	,115	0.091	2.658	0.008
Low power distance <--- National Culture	,129	0,069	2,967	0.003
High power distance <--- National Culture	,237	0.083	5.250	***
Take risks<--- National Culture	,212	0.069	4.739	***
None risks <--- National Culture	,305	0.073	6.495	***
Collectivism<--- National Culture	,503	0.107	9.220	***
Individualism<--- National Culture	,517	0.101	9.368	***
Social Information Processing <--- Social Intelligence	,903			
Social Skills <--- Social Intelligence	,670	0.050	12.636	
Social Awareness <--- Social Intelligence	,210	0.054	3.941	***
Propensity to take risk <--- Entrepreneurship	,682			
Tolerance of Ambiguity <--- Entrepreneurship	,742	0.064	19.074	***
Need for Achievement <--- Entrepreneurship	,799	0.069	20.351	***
Locus of Control <--- Entrepreneurship	,801	0.093	20.400	***
Innovativeness<--- Entrepreneurship	,798	0.072	20.330	***
Self Confidence<--- Entrepreneurship	,777	0.081	19.848	***

Following conditions should be met in order for a variable to have a mediator function: (a) variations in the independent variable should cause variations in the mediator (i.e., Path a), (b) variations in the mediator significantly cause variations in the dependent variable (i.e., Path b), and (c) when a and b are controlled, the relation between the independent and dependent variables is not significant anymore (Baron and Kenny, 1986). Complete mediation occurs when the effect of X on Y decreases to zero with the inclusion of M. When the effect of X on Y decreases significantly, but not to zero, partial mediation occurs (Preacher and F. Hayes, 2004). In our findings the effect of X on Y decreases by the inclusion of M. Consequently partial mediation is said to have occurred. The direct effect of national culture on entrepreneurship is, $c=0,57$.



The effect of national culture on entrepreneurship decreases with the inclusion of social intelligence, $c'=0,33$.



$$\text{Independent Variable} \xrightarrow{c'} \text{Dependent Variable} \quad (2)$$

Sobel Test can also be calculated. “Sobel (1982) provided an approximate significance test for the indirect effect of the independent variable on the dependent variable via the mediator. As in Figure, the path from the independent variable to the mediator is denoted as a and its standard error is Sa; the path from the mediator to the dependent variable is denoted as b and its standard error is Sb. The exact formula, given multivariate normality for the standard error of the indirect effect or ab, is this” (Baron and Kenny, 1986):

$$\sqrt{b^2S_a^2 + a^2S_b^2 + S_a^2S_b^2} \quad (3)$$

In the following output the critical ratio is calculated as a test of whether the indirect effect of the national culture (X) on the entrepreneurship tendencies (Y) via the social intelligence (M) is significantly different from zero.

Table 5. Sobel Test

	Input	Test	Test Statistic	St. Error	p-value
a	0,46	Sobel	2,14	0,112	0,032
b	0,52	Aroian	2,13	0,112	0,033
Sa	0,206	Goodman	2,16	0,111	0,031
Sb	0,068				

As a result of Sobel Test, Z value and p value has been found as 2.14 and 0,03 respectively which indicates mediation role of social intelligence is significant. The total effect of X on Y can also be calculated by the following equation (total value of the direct and indirect effects of X) (Usta, 2009). Table 5 shows the result of hypotheses and all hypotheses are accurate.

$$\text{Total Effect} = a + b + c' = 0,46 + 0,52 + 0,33 = 0,57 \quad (4)$$

Table 6: Accuracy of Hypotheses

Hypotheses	Result
H1.1: Social culture has a positive and significant effect on social intelligence.	Accurate
H1.2: National culture has a positive and significant effect on entrepreneurship.	Accurate
H1.3: Social intelligence has a positive and significant effect on entrepreneurship.	Accurate
H1.4: Social intelligence causes mediation between entrepreneurship and national culture	Accurate

Discussion

National culture appears to have the power to influence social intelligence in a positive or negative way according to findings of the analysis. This may lead to a social environment that is prone to the development of social intelligence, but may also restrict social intelligence and prevents social interaction which reduces the ability of individuals in society to compromise, adapt, empathize, and understand other people. Similarly, it is seen that national culture influences the entrepreneurial tendencies of the individuals in that society either positively or negatively. It can be inferred from the findings that appropriate national culture characteristics will lead to increase people's ability to manage uncertain situations, resistance to uncertainty, achievement need, the tendency to take risks, the ability to control the outside world and the level of self-confidence. These results support the hypothesis of cultural self-representative theory claiming that culture in macro level would interact with people's socializing process, mindset, behaviours and information processing in micro level (Erez and Earley, 1993).

Hayton et al., (2002) had reviewed ampirical studies that examine the association between national cultural characteristics and individual characteristics of entrepreneurs. According to this review national cultural characteristics have an impact on individuals' needs and motives as well as their entrepreneurship tendencies (Hayton et al., 2002). Besides, Baum et al. (1993) claim that entrepreneurs and executives from distinct national culture differ in terms of achievement and affiliation needs.

It has been revealed that individuals' social intelligence levels influence their entrepreneurship tendencies. Akyol and Yener (2009); Zahra et al., (2015) have reached similar results. Another study conducted in Iran revealed that there is a significant relationship between social intelligence with entrepreneurship tendency of managers in small and medium businesses (Pordanjani et al., 2015). Besides, a qualitative study by Marecki (2014) revealed that social intelligence level of entrepreneurial leaders has a substantial impact on the encouragement of employees to behave entrepreneurially.

Social intelligence variable causes mediation between national culture and entrepreneurship. In this sense, it is possible to claim that even if appropriate national cultural environment did not exist, entrepreneurship tendencies would be affected positively as individuals' social intelligence levels increase. Consequently, the existence of appropriate national cultural environment and socially intelligent individuals together would keep entrepreneurial tendencies high in a given society.

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IMPLEMENTATION OF DOTS IN RURAL HEALTH UNITS OF TARLAC CITY: AN ASSESSMENT

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ABSTRACT

Abstract. The study assessed the implementation of the TB-DOTS implementation in ten RHUs in Tarlac City for 2015 and 2016. Record from the RHUs were obtained to gather data on the TB cases and the success rates. In addition, RHU personnel, volunteer health workers and patients were included as respondents of the study. The aims of the study were (1) describe the TB-DOTS implementation in terms of the procedure and the number of the health personnel; (2) determine the new and relapse TB cases from the RHUs in 2015 and 2016; (2) assess the outcome of the new cases of TB-DOTS program in terms of the success rates in each of the RHUs; (3) identify the problems in the implementation of the TB-DOTS; and (4) propose intervention measures to improve the implementation of the TB-DOTS. Findings revealed that in 2015, all RHUs met the target success rates and in fact, succeeded the 90% goal set by the DOH. However, in 2016, two RHUs failed to meet the 90% target. Problems identified to have contributed to the low success rates in the two RHUs were the inability to locate the patients or they failed to go for treatment; deaths in the course of therapy and some were still undergoing therapy at the time of data collection.

Keywords- TB-DOTS, New cases , Relapse cases, success rate, failure rate

INTRODUCTION

Tuberculosis (TB) is one of the top ten causes of mortality worldwide. It continues to be a global threat despite the programs being implemented to prevent its occurrence (Health Line, 2014). The World Health Organization (WHO) reported about 10.4 million cases of TB each year and 1.6 million deaths due to the disease. Ninety-five percent mortality occurs in low and middle-income countries, with India ranking 1st having the most number of mortalities followed by Indonesia, China, Philippines, Pakistan, Nigeria and South Africa (Centers for Disease Control and Prevention, 2017; WHO, 2017; Mohajan, 2015).

According to WHO (2010), One-third of TB cases worldwide is found in South-East Asian Region. In the Philippines alone, TB is reported to be the number one cause of morbidity. In fact, in 2016, 14,000 died and 4.8 million, mostly poor, got ill of the disease (Department of Health, 2017 & Diaz and Crisostomo, 2017).

Tuberculosis is caused by an airborne bacterium called *Mycobacterium tuberculosis*. It a communicable disease which is preventable and curable. However, what is troubling the health authorities worldwide is the occurrence of TB associated with Human Immunodeficiency Virus. More so, there is an increasing multidrug resistant tuberculosis (MDR-TB) cases worldwide. Drug-resistant TB originally developed because of the improper use of TB drugs. The deadlier TB strains are spreading from person to person, including those who have not contracted the disease before (Health Line, 2014).

In response to this global catastrophe, the WHO TB program declared a global emergency in 1993 for TB and began implementing a treatment program called the Directly Observed Short Course (DOTS), which is an internationally recommended management strategy in controlling tuberculosis because it is recognized to be highly efficient and cost-effective (Out, 2013; WHO, 2017).

DOTS for TB consists of diagnosing cases, treating patients for 6-8 months with drugs and promoting adherence to the relatively difficult treatment prescriptions. Health workers need to conduct regular sputum tests on patients and they can be declared cured if two consecutive sputum Acid Fast tests are

negative. The two main purposes of DOTS are to ensure that patients complete the prescribed duration of treatment and prevent drug resistant cases from developing in the community (Davies, 2003; Moise and De Groot, 2009).

In 2009, the National Center for Disease Prevention and Control of the Department of Health (DOH), spearheaded the formulation of the 2010-2016 Philippine Plan Action to control TB (PhilPACT). One of the aims was to scale up and sustain coverage of implementation of DOTS (DOH, 2014). To attain the aims, two of the important strategies are to localize implementation of TB control and to monitor health system performance.

In 2000, data showed that DOTS was implemented globally with a reported success rate of 88% and its case detection was 48%. The WHO claimed that the program has met the global targets of 75% case detection and 87% success rate. However, a concern was raised whether the outcome could be sustained and if uncontrolled MDR-TB would pose a global health threat (Romualdez, 2007).

In a report, there were 450,000 who developed MDR-TB in the Philippines and about 9.6 percent had extensively drug resistant TB (XRD-TB). Out of these cases, 170,000 died of the disease (The Manila Times, 2014). In Central Luzon, there were 14,846 TB cases. Of these, 11% completed the treatment, 77% were cured, four percent defaulted and three percent died.

The present study therefore was conducted in order to monitor the outcome of the implementation of TB DOTS in the 10 rural health centers in Tarlac City. The aim is to propose measures that would enhance the implementation of TB DOTS in order to achieve a TB free Tarlac City.

LITERATURE REVIEW

Directly Observed Short Course (DOTS) to treat TB worldwide began in 1993 and continues to the present time. It remains as the best management strategy to curb prevalence of TB (Moise and De Groot, 2009; Tulchinsky and Varakivoka, 2014 & WHO, 2017).

DOTS consists of five elements-(1) political commitment with increased and sustained financing; case detection through quality- assured bacteriology; standardized treatment, with supervision and patient support; effective drug supply; and monitoring/ evaluation system, and impact measurement (WHO, 2017, 2010; DOH, 2016 & Lee, 2012).

DOTS is adopted worldwide since it is believed to be the most effective strategy against TB. In a retrospective study of Ejeta et. al. (2014), the outcome of a five-year (2009-2013) TB DOTS implementation in Ethiopia was assessed. There were 1175 tuberculosis patients involved in the study. Findings revealed that 14.5% were cured, 56.3% completed, 0.2% treatment failed, 8.1% died, 7.1% defaulters, and 13.2% were transferred to other health facilities. The cure rate was 70.8%.

Similarly, an outcome assessment of DOTS was conducted in Nigeria in 2014 by Sunday et.al. (2014). The success rate was reported to be high (85.45%) compared to the national percentage. However, 9.52% died and 0.98% defaulted, which were considered serious public concern needing urgent solution.

Moreover, Motghare, Sardesai, Caz and Kulkarni (2014) assessed the tuberculosis treatment outcomes using the DOTS in Goa. Cure rate was 42.9%; 42.3% completed treatment; 4.9% were defaulters; 2.7% patients died; 1.6% failure rates; and 0.5% shifted to other non-DOTS treatment facilities.

Furthermore, outcomes assessment of TB DOTS implementation was also conducted in India, being the highest ranked country with TB cases. The study covered 2013 and 2014 TB patients. Out of 1340 registered cases, cure rate was recorded at 90.29%; defaulter rate, death rate, treatment failure and transferred out cases were 2.31%, 4.10%, 1.49%, and 1.79% respectively (Piparva, 2015).

However, despite the recorded significant improvement in TB detection and treatment via the DOTS implementation, challenges surfaced that is believed to detract occurrence of defaults and deaths. The study of Bello (2010), for example, found the side effects of drug intake against TB among patients in Nigeria which included dark urine, nausea and vomiting, and some with yellowish eyes. More importantly, is the incapability of patients to shoulder the cost of TB drugs in cases when public health centers ran out of stocks.

More challenges in the implementation of DOTS were revealed in the study of Rajagopaul, Reddy & Kistnasamay (2014) in South Africa. The challenges included accountability, inadequate systems for follow-up and tracing of defaulters, limited training of DOTS supporters and the choice of DOTS supporters and sites. Moreover, nurses in the centers were inadequate, which had adversely affected record keeping. To augment the lack of nurses, volunteer DOTS supporters were recruited. However, if the supporters found jobs, they abandoned patients assigned to them without informing the health facility.

Problems were likewise encountered by health personnel in the Philippines. Reyes and Amores (2014) stated that while a significant drop in mortality and morbidity due to TB is achieved, it still remained

a major health problem in the Philippines. Accordingly, the rate of decrease in morbidity and mortality is not fast enough. In their study, they found that socio-cultural, financial and health system factors are barriers to a more effective TB management in the country.

More problems in the DOTS implementation surfaced as revealed in the 5th eHealth Online Discussion (2013). Some of which were the incidence of patients testing negative in sputum smear tests in health centers despite being declared positive in a hospital; TB drugs for children were not prioritized in centers; patients who are working or studying had difficulties getting assistance to medications. These are potential causes of defaults or inability to substantially lower down TB cases in the Philippines.

The challenges and barriers in the implementation of DOTS need to be addressed in order to acquire a TB free Philippines. Thus, all sectors of the government must work together to find ways in the effective and efficient implementation of DOTS. Studies such as this, would help the government implementing agency in gathering significant information in reviewing statutory policies, guidelines and strategies relative to TB eradication.

I. OBJECTIVES

General Objective:

To assess the outcome of TB -DOTS implementation in the Rural Health Units (RHUs) in Tarlac City for 2015 and 2016.

Specific Objectives:

1. To describe how TB-DOTS is implemented in the rural health units in Tarlac City in terms of:
 - 1.1. Procedure for TB-DOTS implementation
 - 1.2. Number of health workers assigned for TB-DOTS
2. Determine the status of the TB patients in the RHUs of Tarlac City in 2015 and 2016 in terms of:
 - 2.1. New cases and
 - 2.2. Relapse cases
3. To assess the outcome of the new cases of the TB-DOTS implementation in 2015 to 2016 in terms of:
 - 3.1. Success rates and
 - 3.2. Failure rates
4. Identify the problems in the implementation of the TB-DOTS
5. To propose intervention measures to improve the implementation of the TB -DOTS in TRHUs.

II. METHODOLOGY

Design. This study used descriptive design in determining the outcome of TB-DOTS implementation in ten RHUs in Tarlac City .

Locale. The study was conducted in the 10 RHUs in Tarlac City. TB records were obtained from these RHUs and two hundred patients were taken as respondents from the health units.

Respondents. In identifying the problems encountered in the implementation of TB-DOTS, 100 health personnel out of 868 or nurses, volunteers and 100 patients were included as respondents to provide the data needed to answer the problem. The quota sampling technique was employed in selecting the respondents.

Instrument. A questionnaire was developed to gather data from the respondents. It underwent dry run among 20 TB patients who were not included as respondents of study. The reliability index was 0.88 via Cronbach Alpha, indicative of a reliable instrument.

In addition, records were requested from the RHUs to obtain information on new and relapse cases, success and failure rates. The nurse assigned to coordinate the TB -DOTS implementation, including the City Health Officer were interviewed to gather data on the procedure in implementing the TB-DOTS.

Procedure. Research enumerators fielded the questionnaires to the selected RHUs. Questionnaires were retrieved on the same day. Records were requested from health centers, The researchers also approached the City Health Officer for an interview with the procedure of the TB-DOTS implementation.

Statistics. The frequency count and percentage were used to present the new and relapse cases, success and failure rates and the problems in the implementation of the TB-DOTS.

Research Ethics. Letter to the City Health Officer was submitted asking for permission to conduct the study. Informed consent was attached in the questionnaires for the health personnel, volunteers and

patients. The purpose of the data gathered from them was explained well to the respondents. They were assured of the confidentiality of their identity in the presentation of results.

III. RESULTS AND DISCUSSIONS

1. The implementation of TB-DOTS

The implementation of TB -DOTS in the 10 RHUs of Tarlac City is described in this study based on the procedure involved and the number of health personnel assigned to implement the TB-DOTS

1.1. Procedure of the implementation of the TB-DOTS

The TB-DOTS program includes steps in the treatment of patients

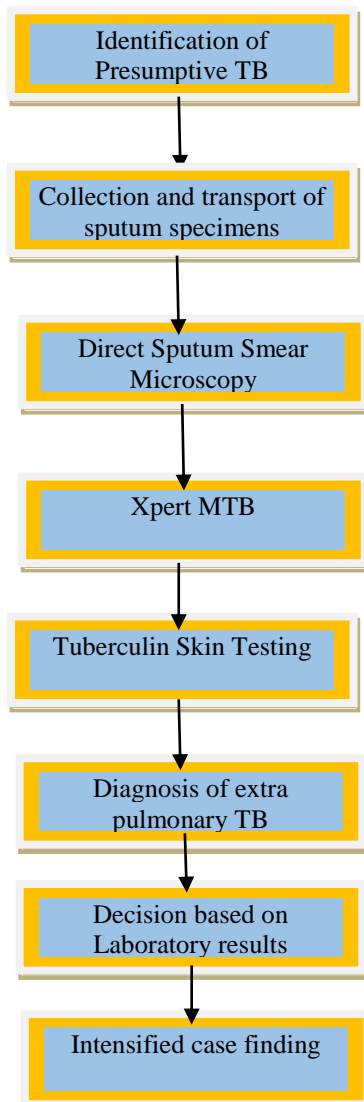


Figure. 1 Procedure for TB-DOTS

TB-DOTS program starts with identification of presumptive TB cases. The health personnel checks for clinical signs and symptoms. For patients who are 15 years old and above, a presumptive TB consists of cough for at least 2 weeks duration with or without significant and unintentional weight loss; fever; bloody sputum (hemoptysis); chest/ backpains without any diagnoses ; musculoskeletal pain ; easily fatigued; night sweats; and shortness of breath or difficulty in breathing. There is also unexplained cough of any duration. For patients below 15 years old, at least three of the following: (1) coughing and wheezing of 2 weeks or more; (2) unexplained fever; (3) loss of weight/ failure to gain weight; (4) failure to respond in 2 weeks to lower respiratory antibiotics ; (5) failure to regain previous state of health in 2 weeks; and (6) fatigue, lethargy and reduced playfulness. Chest x-ray findings are positive with or without symptoms. Presumptive

TB which has the following symptoms (1) neck stiffness, (2) pleural effusion, pericardial effusion, (3) distended abdomen, (4) non-painful enlarged joint, (5) signs of tuberculin hypersensitivity (DOH Regional Office 3, 2016).

After the identification of presumptive TB, the medical technologists collect and transport the specimen from the center to the laboratory. The medical technologist performs a Direct Sputum Smear Microscopy (DSSM). Two sputum smears are required within a span of 3 days. There are also rapid tests available. Tuberculin Skin Test is also being performed but is only used as screening test for children . If at least one sputum smear is positive, the patient is declared positive for TB (<https://www.philhealth.gov.ph>).

An important procedure after testing positive for DSSM is Xpert MTB. This procedure will determine whether the patient is resistant to anti-TB drugs.

For patients less than 15 years old, a tuberculin skin test is performed. A positive result is an area of induration of the skin with 10 mm diameter (DOH Regional 3 Manual, 2016).

For extrapulmonary TB, the physician can perform clinical diagnosis. The clinical diagnosis can be verified through analysis of CSF via Xpert- MTB.

If patients test positive for clinical or bacteriological tests, the patient is now registered for treatment. The health workers will perform series of interview and monitoring of the patient, including the household of the patient for possible familial contamination. Treatment of TB -DOTS is from 6-8 months. The physician determines the drugs to be administered and the dosages.

1.2. Number of Health Personnel Assigned in the TB-DOTS implementation

The researchers, requested for the record of the TB-DOTS personnel.

Table 1. Personnel Assigned in the TB -DOTS implementation

Health Profession	f	%
Physician	11	1.27
Nurses	26	3.0
Medical Technologists	5	0.57
Midwife	37	4.26
Barangay Health Workers	789	90.90
Total	868	100%

Table 1 shows the health personnel assigned to implement TB-DOTS in the 10 RHUs in Tarlac City. It could be seen that most of the health workers (90.90%) are volunteers from the barangay who are provided with an allowance from PhP 500 to PhP 1000. The BHWs are trained by the midwives to interview residents in the community and weighing, These are the initial steps undertaken by the health personnel in order to establish presumptive TB. BHWs are not trained for laboratory diagnosis. Only medical technologists are trained

It could be observed that there are only five or 0.57% medical technologists servicing the 10 RHUs. Considering that the diagnosis of TB relies mostly on laboratory procedures, inadequacy of medical technologists poses a problem in the efficient and effective identification of TB patients. This was affirmed by the medical technologists, nurses and City Health Officer interviewed by the researchers. According to the nurses, sometimes patients come to the center for sputum examination but the medical technologists assigned to a particular center could not come since they have patients in the other health center. According to the City Health Officer, this affects the accuracy of monitoring the status of the TB patients. If patients are rescheduled, they no longer report to the RHU because of their previous experience.

Nurses comprised 3% of the TB-DOTS personnel. Considering the number of patients coming for TB diagnosis and treatment, this number is inadequate since aside from TB-DOTS, they need to provide other health services such as maternal and child health care and others.

Midwives are also inadequate (4.26%). Considering the large number of BHWs to be trained in the presumptive identification of the TB patients, 37 midwives are not enough for the provision of thorough training.

There are 11 physicians assigned in 10 RHUs of Tarlac City. One is the City Health Officer assigned as the over-all chair of the TB-DOTS implementation. On the other hand, a nurse assigned at the RHU 10 is the coordinator of the TB-DOTS who consolidate records from the 10 RHUs.

Generally, findings on the number of professional personnel assigned in the TB-DOTs implementation is inadequate. There are numerous BHWs but their involvement in the identification and monitoring of the progress of TB treatment is limited since they do not have the technical skills for clinical and laboratory diagnosis.

2. Cases of TB in Tarlac City

New and relapse TB cases for 2015 and 2016 were obtained from the RHUs.

2.1. New Cases

New Cases of TB refers to the cases of TB for the first time in the community.

Table 2. New TB Cases for 2015 and 2016

RHU	2015	2016
1	123	129
2	135	138
3	89	94
4	64	70
5	80	79
6	69	72
7	83	88
8	66	78
9	76	72
10	79	82
Total	864	902

Table 2 shows the number of new cases of TB in 2015 and 2016. As seen, there were 864 new cases in 2015 and 902 in 2016 in all 10 RHUs. Moreover, an increase in new cases can be observed from 2015 to 2016, except in RHU 5 and 9. This is attributed to the effective monitoring the household of the TB patients. They were told to be careful in isolating their belongings and themselves during the infective stage of the TB

illness. The findings of the study on the increased new cases of TB from 2015 to 2016 ran counter to the report in the United States. The Center for Disease Control and Prevention (2016) reported a 2.9% decrease in 2016 compared to 2015. But is similar to India , reported to have the highest TB in 2016 in the whole world (Wire, 2016).

2.2. Relapse Cases

Relapse cases are those patients who were treated but had recurred.

Table 3. Relapse TB Cases for 2015 and 2016

RHU	2015	2016
1	17	23
2	14	28
3	3	8
4	8	17
5	2	3
6	4	6
7	18	23
8	6	14
9	2	8
10	27	18
Total	101	148

Table 3 shows that relapse TB cases in 2015 to 2016. An increase from 2015 could be observed. Some of the patients stopped taking anti-TB drugs or took them regularly. According to the health workers, closed supervision on these cases were done but the patients were not able to comply with the treatment on time. The findings is similar with India which was reported to have 10% relapse cases in 2016 (Azhar, 2016).

3. Outcomes of the treatment of New Cases

3.1. Success Rates

Table 4. Success Rates for the New Cases

RHU	2015 (%)	2016 (%)
1	100	93
2	93	87

3	100	100
4	100	100
5	96	98
6	99	96
7	100	77
8	100	100
9	99	100
10	98	99

For the success rates of the treatment of the new cases, it could be observed that all RHUs exceeded the goal of the DOH of 90% in 2015 but two RHUs failed to reach the goal, particularly in RHU 2 and RHU 7. According to the nurses assigned in these RHUs, patients were lost in follow-up. Some patients failed to comply with the required 6-8 months treatment. The success rates in the 10 RHUs in Tarlac City were higher than in India having 86% (TB Facts. Org., 2016).

3.2. Failure Rates

Failure rates refer to the failure in treating the new cases of TB Dots.

Table 5. Failure Rates

RHU	2015 (%)	2016 (%)
1	0	7
2	7	13
3	0	0
4	0	0
5	4	2
6	1	4
7	0	23
8	0	0
9	1	0
10	2	1

It could be seen in Table 5 that the failure rates for 2016 were high than in 2015. This is attributed to the patients' inability to follow the prescribed schedule and dosages of the anti-Tb drugs.

4. Problems in the Implementation of the TB-DOT

4.1. Patients

Table 6. Problems of the Patients in the TB -DOTS Implementation

N=100

Problem	f	%
Lack of personnel to perform DSSM	71	71
Very long queue in the health center	65	65
Fear of stigma	45	45
Fear of side effects of anti-TB drugs	34	34
Loss of appetite in eating	33	33
No family member to accompany them to health center.	23	23
Failure to take the medicines on schedule	25	25

The problems of the patients in the TB-DOTS treatment is mostly the lack of health personnel, especially of medical technologists who will perform the laboratory diagnosis (71%). According to the patients, they get frustrated when they go to the center only to find out that the laboratory personnel is not around. According to them, it is a waste of time to go to the center, considering that patients were mostly males who had to work for their food.

Some also claimed that there is a long queue in health center since there are also patients other than those availing of the TB-DOTS (65%). Others had a fear of the stigma of TB once others find out they are positive of the disease (45%). Some fear of the side effects of taking the anti-TB drugs such as nausea, vomiting and stomach ache (34%).

Some claimed they lose appetite (33%) when taking the anti-bacterial drugs and they do not have someone to accompany them to the center (23%).

The findings on the problems of the patients in undergoing the TB-DOTS is consistent with what Web MD (2017) that taking anti-TB drugs may cause hives, loss of appetite, nausea, vomiting, skin rash, jaundice, and blurred vision.

4.2. Health Personnel and Volunteers

Table 7. Problems of Health Personnel and Volunteers

N=100

Problem	f	%
Lack of personnel to do the DSSM	66	66
Some patients do not come back	65	65

on their schedule.		
Some patients do not come during laboratory diagnosis	64	64
Inadequate training of the BHWs	78	78
Ineffective system of monitoring TB-DOTS enrollees.	56	56

The problems of the personnel in the implementation of the TB-DOTS were consistent with the problems expressed by the patients. These were lack of training of the BHWs (78%); lack of personnel to the DSSM (66%); some patients did not come back on their schedule (65%) ; and some patients did not come during their laboratory diagnosis (64%).

The findings on the problem of the personnel in implementing the TB-DOTS were consistent with the findings of Rajagopaul and Kistnasamy (2014) in South Africa that lack of training of supporters (equivalent to BHWs in the Philippines) and lack of system of monitoring or tracing TB patients.

5. Proposed Intervention Measures

Based on the problems identified in the implementation of TB-DOTS, the following intervention measures are proposed.

Problem	Action	Expected Outcome
Lack of personnel to perform DSSM	City government must increase the number of medical technologists to be deployed to the RHUs. At present, one MT is assigned to 2 RHUs. Considering the number of patients, 1:2 ratio will hardly accomplish two sputum analyses for all TB patients	Additional 5 MTs will address the lack of personnel to perform laboratory diagnosis.
Very long queue in the health center	Systematic scheduling of patients. Create a separate line for TB patients.	Long queues are avoided
Fear of stigma	Massive information-	Renewed perception about

	dissemination to the public that TB is curable and not infective once treatment has started.	having TB
Fear of side effects of anti-TB drugs	<p>Nausea and Vomiting- eat small frequent meals; eat cooled food at room temperature; eat dry salty biscuits; eat light, low fat food; no lying down immediately after eating.</p> <p>Constipation – add fiber like whole grains, bran and dried fruit; consume a lot of liquid; exercise regularly.</p> <p>Diarrhea- prevent dehydration, replenish sodium; avoid fried foods; limit sugar; avoid alcohol and caffeine</p>	Side Effects of taking TB-drugs are avoided
Loss of appetite in eating	Eat 5 to 6 smaller meals; Reduce or cut down on low energy- and nutrient dense foods/beverages.	Appetite will not be affected when taking anti-TB drugs
No family member to accompany them to health center.	BHWs must include education to household on the importance of	Family members become involved in the treatment of the TB patients.

	accompanying their sick family member	
Lack of training of BHWs	Conduct a more frequent training of BHWs	BHWs are adequately trained in visiting TB patients and reminding them of the need to regularly visit the health center

IV. Conclusions

1. TB -DOTS implementation follows a procedure from identification of presumptive patients; validation of presumptive patients through laboratory tests and finally, the treatment of TB for 6- 8 months.
The Health personnel assigned in the implementation of TB-DOTS is inadequate.
2. TB-DOTS implementation for 2015 and 2016 in the 10 RHUs in Tarlac City is considered effective because of the success rates above the 90% target except for two RHUs which registered below 90% success rates in 2016.
3. Problems in the implementation of TB-DOTS included the lack of system to trace all patients in order to ensure that they get the treatment for the prescribed number of months; failure of the patients to show up regularly during their scheduled health center visit; inadequate health personnel; fear of stigma; and fear of side effects of drugs.

V. Recommendations

1. The City government must open items for additional health personnel in order to achieve success of TB-DOTS
2. RHUs must collaborate with the barangay leaders in locating the permanent addresses of the patients in order to track them anytime they are needed.
2. RHUs must keep record of mobile numbers, not only of the patients, but their significant others as well. In this way, they could contact patients or their relatives to be reminded of their treatment schedules.
3. The intervention measures proposed in this study may be implemented in the RHUs.
4. A repeat study must be conducted to monitor progress of TB-DOTS for the coming year.

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Dr. Corpuz has been presenting researches in various conferences locally and internationally. She presented in Bacolod, Cebu, Singapore, and USA. Her researches were also published in local and international refereed journals. She is also an editorial board member of an international journal. Her researches are on environment, health, education, general Science and community extension.

CHALLENGES AND SUCCESS MANTRAS BY UNORGANIZED RETAILERS TO COPE WITH ORGANIZED RETAILERS IN INDIA

(A CASE STUDY OF PUNJAB)

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ABSTRACT

Retail is India's biggest industry. It represents more than 10 % of the India's GDP and around eight percent of the occupation. Retail part is one of India's quickest developing segments with a 5 for every penny aggravated yearly development rate. India's enormous white collar class base and its undiscovered retail industry are key attractions for worldwide retail titans wanting to enter more up to date markets. In 2013, we conducted interviews with 200 rural retailers who were running their businesses successfully from more the 20 years. Each business owner conducted business in one of three rural communities with populations between 2,000 and 5,000 and shared their market with at least one organized retailer. We asked participants to answer open-ended questions concerning their marketing, merchandising, and customer relations to learn if they were practicing what Stone had recommended and whether they believed these strategies contributed to their success. Our participants shared the following marketing, merchandising, and customer service strategies they believed made a difference in their business.

Key Words: Small Retailers, Strategies, Organized retailers etc.

INTRODUCTION

Retailing consists of all activities involved in selling goods and services to consumers for their personal, family, or household use. It covers sales of goods ranging from automobiles to apparel and food products, and services ranging from hair cutting to air travel and computer education.¹ The word "Retailing" starts from a French-Italian word "retailer". Which means Retailer is the person who cuts off or refers to one of the fundamental retailing activities which is to buy in larger quantities and sell in smaller quantities. Retailing is the sited of exercises the activity that sell the goods or services to last customers for their own or family consumption. This thing takes place by arranging their accessibility on a generally large scale and supplying them to clients on a moderately small scale. Retailer is a Person or Agent or Agency or Company or Organization who is instrumental in coming to the Goods or Merchandise or Services to the End User or Ultimate Consumer.

Retail business is one of those businesses which play a significant role in Indian economy. It is always been big employment pool and source of income. In 2012, According to A. T. Kearny India has been identified

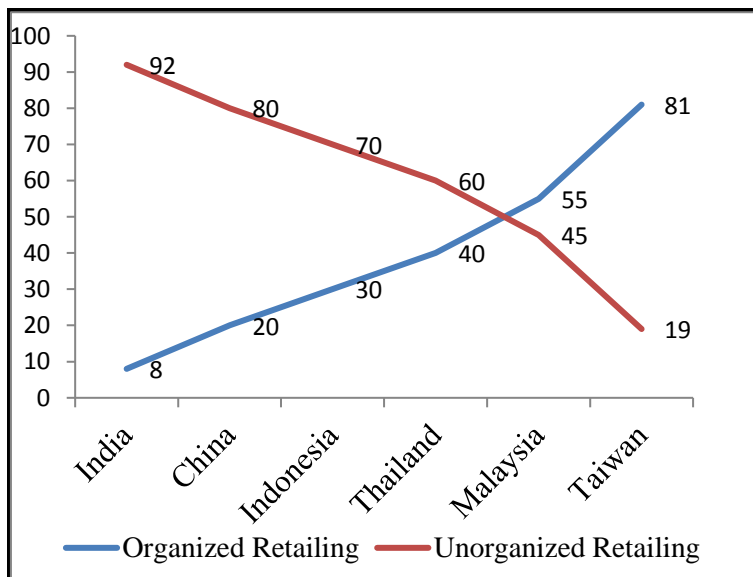
as the fifth most attractive retail destination globally from the thirty emerging markets (US-based global management consulting firm A T Kearny 2012). The report demonstrates

that the share of retail sector in Indian market is Rs. 2850055 crore (\$ 516 billion) in 2012. It also states that India will remain a high potential market with accelerated retail growth of 15-20 percent over the next five years expectedly.²

The Indian Retail Industry on the whole is divided into organized and unorganized sectors. Organized Retailing refers to marketing activities undertaken by licensed retailers who are registered for sales tax, income tax and, whose business is corporate, who implement management techniques managed by professionals as a firm or limited company or cooperative. These include corporate-backed hypermarkets and retail chains, and also privately-owned large retail businesses. Hence, organized retail which now constitutes 8% of the total retail sector is growing at much faster pace of 45-50% per annum than unorganized retail as per the findings of Indian Council for Research on International Economic Relations (ICRIER).³

Unorganized/Traditional retailing refers to the traditional formats of low-cost retailing, for example, the local kirana shops, owner manned general stores, paan/beedi shops, convenience stores, hand cart and pavement vendors, etc.⁴ From the table it is clear that India occupies first place in the unorganized retailing.

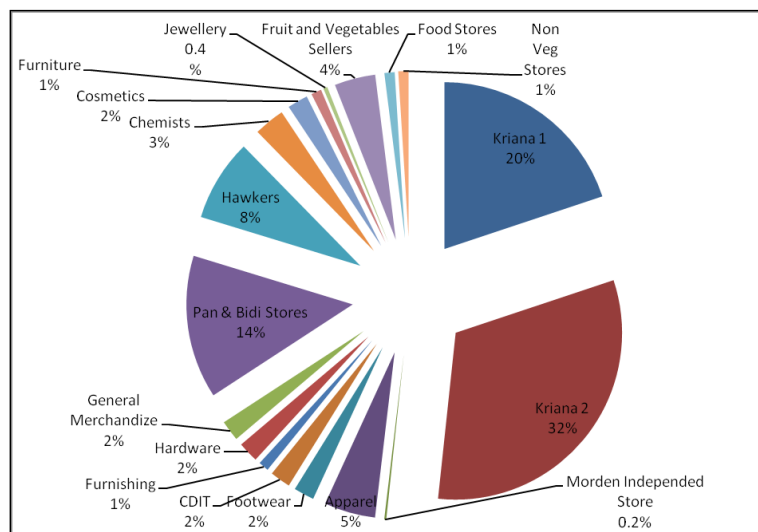
	Organized Retailing	Unorganized Retailing
India	8	92
China	20	80
Indonesia	30	70
Thailand	40	60
Malaysia	55	45
Taiwan	81	19



Source: A. T. Kearny, Booz & Company analysis, FICCI, 2012

CATEGORIES OF SMALL RETAILERS

- ✓ **Fruit & vegetable sellers** – Sells fruits and vegetables.
- ✓ **Food stores** - Result of bakery products. Also sells dairy and processed food and beverages.
- ✓ **Non-Vegetable Store** - Sells chicken and mutton.
- ✓ **Kirana I** - Sells bakery products, dairy and processed food, home and personal care and beverages.
- ✓ **Kirana II** - Sells categories available at a kirana – I store plus cereals, pulses, spices and edible oils.
- ✓ **Apparel** - Sells men’s wear, women’s wear, innerwear, kinds & infant wear.
- ✓ **Footwear** - Sells men’s wear, women’s wear, kid’s wear
- ✓ **Customer durables & IT**- Sells electronics, durables & IT products.
- ✓ **Furnishing** - Sells home lines & upholstery.
- ✓ **Hardware** - Sells sanitary ware, door fitting and tiles.
- ✓ **General mechanize** - Includes lighting, stationery, toys, gifts & crockery.



Source: <http://www.technopak.com/Retail/resources.aspx>

OBJECTIVES OF STUDY

The objectives of the study are given below:

- Find out the strategies of small retailers that can help them coexist with big market and make them exist in the market.
-
- Find out the opportunities where they are able to change to compete with organized retail sector.

REVIEW OF LITERATURE

To be able to formulate the problem precisely, it seems logical to present a brief review of the researches done on the problems what follow make no pretense of being an exhaustive review of all investigation done on this problem, rather it has been indicated in general way, all type of work done in this direction in India and abroad.

REVIEW OF LITERATURE

- Archer and Taylor (1994) in his book *Up Against the Wal-Mart* argues that the small retailers can survive “in the shadow of the retail giants” the key being levels of customer service that the mega-retailers can’t provide, their very size limiting their abilities in this area provide ten survival strategies for small retailers to consider in competing with mega-discount chains. These precepts are:
 1. Focus completely on satisfying the customers
 2. Study the success of others
 3. Gather and analyze management information regularly
 4. Sharpen marketing skills
 5. Increase the customer’s perception of value
 6. Position the business uniquely
 7. Eliminate waste
 8. Find something to improve every day
 9. Embrace change with a positive attitude
 10. Pull the trigger and start the battle

- Berry (2001) in his article *The Old Pillars of New Retailing* argued that by using five well-documented retailing best practices, the “Five pillars of retailing”, survival and success can be achieved. Berry’s “Five Pillars” of retailing or best retail practices, components of his “retail model” are:
 1. Solve the customers problems
 2. Treat customers with respect
 3. Connect with customers’ emotions
 4. Set the fairest (not lowest) price
 5. Save customers’ time

- Brennan (1991), in his Report *An Analysis of Impact of Discounters on Retailing in Small Towns and Alternative Responses for Retailers and Community Leaders* In which he views on strategies adopted by the retailers opined that providing specialized services, offering better quality products and improved customer services were the most successful strategies, on the other hand, increasing sales and promotions, lowering prices and increasing advertising were least successful.

- Goswami P. and Mishra M.S. (2009) conducted the study *Would Indian Consumers move from Kirana Stores to Organized Retailers when Shopping for Groceries?* that was carried across four Indian cities- two major metros (Kolkata and Mumbai), and two smaller cities (Jamshedpur and Nagpur) with around 100 respondents from each city. The results suggest Kiranas would do best to try and upgrade in order to survive. Given that modern trade outlets have deeper pockets and can

afford to make mistakes and get away with it in the short term, Kiranas have to stay alert, try to upgrade and continue to serve customers well, while concentrating on innovating, evolving and remaining efficient on retailer productivity scores.

- Gupta (2012) in her study *Customer Loyalty towards Kiranas in Competitive Environment: A Case study* concluded that store attributes like convenient operating hours and accessibility were the factors which lead to customer loyalty and not store appearance. Similarly, product attributes like freshness of the product and availability of products range according to the pocket were major determinant of loyalty. It was also evident that even today Kiranas are preferred by customers because of various reasons viz. convenient location, home delivery, personal relations with shopkeeper, giving products on credit, payment in installments.
- Joseph, Soundararajan, Gupta and Sahu (2008) in their research report *Impact of Organized Retailing on the Unorganized Sector* concluded that unorganized retailers in the locality of organized retailers were adversely affected in terms of their volume of business and profit. According to them, with the emergence of organized outlets, consumers gained the availability of better quality products, lower prices, one-stop shopping, choice of additional brands and products, family shopping, and fresh stocks.
- Kumar and Narwal's (2011) Research Paper *Sustainability of Modern Retail Via Comparative analysis of Organized and Unorganized sector* based on their research concluded that the "kirana shops being affected by malls is only a myth". He further concluded that in spite of the available opportunities to the organized retail to grow in India these kirana shops also were benefited from this growing economy.
- Kumar (2011) in his work *A Study on the Strategies of Unorganized Retailers with reference to Consumer Durables* found that a product strategy which means merchandise is the most important factor followed by price, distribution and promotion.
- Kushwaha (2011) in his research paper *Customer Perception in Indian Retail Industry: A Comparative Study of Organized and Unorganized Retail Industry* compared the perception of consumers in organized and unorganized retail market and found that factors like cleanliness, distance, price, quality, safety and space for shopping are the determinant factors for unorganized retail.
- Lindquist and Sirgy (2003) suggested that mental traits are somewhat harder to distinguish and think about crosswise over outlets. They incorporate such target contemplations as a feeling of having a place, sentiment warmth, or kind disposition, or sentiment energy. Buyers frame an outlet picture construct at the same time in light of useful and mental qualities.
- Lee and Johnson (1997) found that client desires of store ascribe likewise contrast as indicated by store sort. They watched that clients did not expect much client administration at rebate stores while they expected broad administration from forte stores. With an end goal to decide how purchasers sort out their shopping excursions when confronted with an inexorably amplified arrangement of retail organizations, Ringer and Lattin (1998) has demonstrated that there exists a coherent relationship between a family's shopping conduct and store inclinations.

- Leung and Oppewal (1999) had led inquire about on the parts of store and brand names in buyers' decision of a retail outlet and presumed that an excellent brand or brilliant store is adequate to draw in the client to a retail location. The study additionally uncovered that store names have a bigger effect on store decision than the brand names of the items that these stores have on offer.
- Popkowski-Leszczyc and Timmermans (2001) found that consumers tended to choose a variety of stores and overall preferred to shop at specialty stores. Furthermore, consumers were increasingly likely to select a single store when prices were lower, parking costs were less, better assortments were offered, travel time was reduced and checkout lanes were shorter.
- Bread cook, Parasuraman, Grewal, and Voss (2002) examined how store environment signals impact buyers' store decision choice criteria, for example, saw stock esteem and shopping background.
- Paulins and Geistfeld (2003) opined that consumers' perception of store attributes influenced by retail formats, type of products, cultural value, shopping intention and customer base. Paulins and Geistfeld (2003) showed that apparel store preference is affected by type of clothing desired in stock, outside store preference, shopping hours and store advertising. Accordingly, consumer's perceptions of store attributes were found to vary by store type.
- McGee and Finney (1997) in their study *Competing against Retailing Giant: A Look at the Importance of Distinctive Marketing Competencies* stated that a unique competency is the particular instrument that can increase an SMR's competitive advantage. More importantly, they suggested that there are five factors in the area of distinctive competence. These are:
 1. Quality image
 2. Effective differentiation
 3. Effectiveness of key merchandising practices
 4. Civic involvement
 5. Control of retail program
- Shils & Taylor (1997) in the article *Measuring The Economic and Sociological Impact of The Mega-Retail Discount Chains on Small Enterprise in Urban, Suburban and Rural Communities* mentioned that in the retail system, multinational chains have an advantage over smaller retailers by centralizing retail and distribution systems resulting in more competitive pricing and more distribution power over small local businesses. The power to control the production and distribution of products was transferred from large numbers of local retail businesses to small numbers of large business corporations.
- Solgaard & Hansen (2003) in his research article *A Hierarchical Bayes Models of Choice between Supermarket Formats* identified several store attributes that were considered important for the consumer's evaluation of stores. These attributes were merchandise, assortment, merchandise quality, personnel, store layout, accessibility, cleanliness and atmosphere.
- According to V Ramanathan's (2009) paper *The New Face of Unorganized Retailers in India: From Convenience to Category Killer* the unorganized retailers need to be responsive to the competitive retail market dynamics created by the organized retail formats in order to sustain their business and

serve their target customers in a profitable manner. The change process requires the unorganized retailers to reshape their existing business practices of dealing in a limited variety of product alternatives to offering the complete assortment in the product categories handled by them. This ‘category killing’ approach would become imperative for the continued survival of unorganized retailers. If the unorganized retailers adopt this approach, together with the various forms of convenience that they already offer, they would be able to stand up to the competition from the organized retail formats.

- Vijayraghavan K. and Ramsurya M.V., (2007) in the study *Mom & Pop Happy Letting a Rich Tenant Takeover* discussed the topic that it is a matter of debate as to whether Indian kirana stores would be able to survive in the face of competition from organized modern trade grocery retailers. Although traditional retail currently constitutes over 95% of the total sales in the country, smaller kiranas that are unable to compete with new age retailers in terms of variety and scale have begun losing volume in several parts of the country.
- Thenmozhi, D & Dhemapaul, D. (2011) in their study *Unorganized Retailing in India – A Study on Retail Service Quality* reveals six retail service quality factor namely store merchandise, Access, Personal Interaction, Problem Solving, Policy, and physical aspects. The findings of the study also confirm that retail service quality factor have a significant impact on customer satisfaction and customer loyalty in traditional retail outlets. The study also analyzes the association between demographic profile of the customers and their perception on retail service quality. These results have managerial implications for unorganized retailers which help them to formulate suitable strategies to satisfy and retain customers visiting their retail outlets as well as survive in highly competition retail sector.

RESEARCH FINDINGS

- ✓ **Know your market.** Retailers knew demographic information (age, gender, income) about their customers. They also shared that they thought they knew the type of service, merchandise, and level of loyalty of their customers.
- ✓ **Know what customers think about your store.** Retailers believed customers thought their stores were clean, safe, and liked the customer service provided. Retailers also indicated their store was a place for customer’s to get their questions answered.
- ✓ **Improve store promotion.** Retailers provided promotional events for customers including but not limited to participation in trunk shows, open houses, downtown community events, demonstrations, and donations to community auctions and fundraisers.
- ✓ **Develop or improve power aisles/end caps.** Retailers had a power aisle or featured location within the store for promotional items.
- ✓ **Develop “no hassle” return policies.** Retailers had what they termed a “liberal” return policy. Liberal for many participants meant doing whatever the customer requested.
- ✓ **Shop the competition regularly.** Retailers looked at assortments and prices of competitors as well as level of product knowledge of sales associates; merchandise displays, customer services offered, and customer behaviors.

- ✓ **Fill competitor's voids.** When retailers carried products similar to those carried by big box retailers they were higher in quality. Retailers filled voids by offering a complete product line or exclusive items.
- ✓ They described their inventories as branded, high quality, and fashion forward.
- ✓ **Get out-of-stock merchandise quickly.** Retailers found a way to get merchandise quickly for their colleagues in the same business. A few even recommended other places to get the product.
- ✓ **Know your merchandise well enough to explain it.** Retailers indicated their sales associates were very knowledgeable about their merchandise. Some of the associates had been working at the store for over 10 years.
- ✓ **Provide a personalized shopping experience.** Retailers knew their customers often by name, cared about them, and provided them with a pleasant shopping atmosphere.
- ✓ **Offer something extra in comparison to big box retailers.** Retailers offered alterations, delivery/pick up service, and knowledgeable sales associates as the something "extra." A few provided seminars and classes, advice (e.g., design service), installation, and mailed customer's store notices.
- ✓ **Get employees involved in the store.** Retailers solicited employee opinions through store meetings. Some retailers assigned areas of the store to be managed by their employees or put employees in charge of store areas such as merchandise displays.
- ✓ **Control shrinkage.** Customers were acknowledged upon entry into the store and not allowed to shop unnoticed. In addition to customer contact, some retailers used security cameras and one-way glass to monitor customer behaviors.

CONCLUSIONS

Our research findings demonstrate that it is possible for small retailers to successfully coexist with organized/big retail competitors. Take a moment to reflect on what marketing, merchandising, and customer service strategies you have in place. As you analyze your business consider what your strengths are and where are your opportunities for change

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THE OBJECTIVES OF NIGERIA'S FOREIGN POLICY IN RELATION TO RELATION TO AFRICA STATES BETWEEN 1960-2015

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ABSTRACT

This study delved of examining the historical perspective on the Nigeria foreign policy to African between the years 1960-2015. It was guided by Nigeria's foreign policy between 1960-2015. This article looked into the relationship of Nigeria, Uganda and other African countries since 1890s when Lord Lugard first came into contact with Uganda and later went to Nigeria in 1912. Nigeria and Uganda were both ruled under Britain, both of them shared the same antecedence of History in terms of good and bad leadership, corruption, religious and ethnics civil crisis. Nigerian foreign policies covered all African states in terms of financial, military and human resource assistance to many African countries eg she is central in the creation of OAU, ECOWAS and she alone created ECOMOG, she intervened in Chad civil crisis of 1975, she assisted Zambia, Zimbabwe and South Africa in their fight for independence. Nigeria was instrumental in bringing peace in sarrieleone and Liberia in the 1990s. The findings of this study was Nigeria used to be generous to many African countries yet her own country was not develop to standard of many African countries as it was seen in the western world where by their first priority is their home then other and when assistance is given to any country profit comes in from that country being assisted but in the case of Nigeria she was mock by scholars as fatherchristmas. This study recommend that Nigeria should first of give priority to herself, provide basic things needed by it citizens ie Quality Education, Drinking Water, Good Roads, Electricity, Skills Acquisition Centers and etc. the study suggest that further studies should be carry out to investigate why Nigerian leaders behaved the way they behaved and why are they not passionate about the development of their country.

1.1 Background to the study

Post-colonial Africa has experienced many difficulties, and the continent is host to some of the world's most underdeveloped and unstable countries (Rodney, 1972). Several factors led to this unfortunate situation, and socio-political reasons are one important aspect (revealinghistories.org.uk). These relations are a central feature of any country, but are important especially in Africa due to specific circumstances. The sociopolitical history and the unstable environment have created a special context, which has affected all actors in the relationships (Ngoma, 2006). The relationship between Nigeria to the rest of Africa tides back to the founding of OAU 'Organisation of African Union' in 1963 (sahistory,2016) later AU 'African Union'. Nigeria as backbone of OAU bailed the ACNC by taking tough position with regard to South African government and their military aides. Nigeria also influenced the foundation of regional co-operation effort in West Africa functioning as standard bearer for ECOWAS, ECOMOG, economic and military organization respectively. When civil war broke in Angola after independence from Portugal in 1975 (blackpast,2016), Nigeria mobilized its diplomatic influence in Africa in support of the Popular Movement for the Liberation of Angola (MPLA) this hoped MPLA to be recognized by OAU over the National Union for the Total Independence of Angola. Nigeria extended support to another card, Sam Nujoma's Southwest Africa people's organisation in Namibia, to stall Apartheid South Africa government there. In 1977 New general Olusengun Obasanjo's military regime donated \$20 million to Zimbabwean movement against apartheid government of Rhodesian (digitalcommons,2016). Nigerian sent military equipment to Mozambique to help the newly independent country suppress the South African backed Mozambican National Resistance Guerrillas. Nigeria also provided some military training at the Kaduna first mechanized army division and other national support to Joshua Nkoma and Robert Mugabe's guerrilla forces during the Zimbabwe war in 1979 against the white prime minister (white) Ian Douglas Smith(nairaland,2016). Since the independence of

Nigeria in 1960, there have been a number of conceptual ideological transitions in the Nigeria foreign policy machinery. Essentially, they all strive towards construction and definition of the thrust of Nigeria's foreign policy.

Under the framework of an Africa-centered foreign policy, Nigeria got involved deeply in the decolonization struggles in Angola, Mozambique, Namibia, and anti-apartheid struggles in South Africa and in the process earning for itself the appellation a 'frontline nation', even though she was geographically far removed from the theater of the struggles which was in the Southern African region. Nigeria is central to the formation of ECOWAS, has contained the breakdown of social order in Liberia, Sierra Leone, etc, through its world acknowledged peacekeeping expertise, and has provided economic life wire to less economically resourceful countries. In terms of proactive engagement with major socio-political and economic issues of continental importance in the last fifty five years, Nigeria tower far above any other African country.

The concept of economic diplomacy as a foreign policy plank was introduced in Nigeria's foreign policy during the Ibrahim Babangida administration. The government conceptualized economic diplomacy policy as, 'the promotion of export trade, investment and increased financial assistance from friendly countries'. Building on this, the then Foreign Affairs Minister, Ike Nwachukwu in his June 1988 speech entitled: *The Dynamics of Nigeria's Foreign Policy*, provided the policy direction when he stated that, ' it is the responsibility of our foreign policy apparatus to advance the course of our national economic recovery. The imperative of an economic diplomacy foreign policy framework was inspired by the economic pressures that were exerted on the Nigerian economy as a result of the introduction of the Structural Adjustment Programme (SAP) (www.vanguardngr.com). The later government of General Sani Abacha from 1993-98 focuses on the disputes between Nigeria and Cameroon on land in the richest area of Nigeria which have been confiscated from Nigeria and was given to the Republic of Cameroon by the International Court of Justice ICJ. Nigeria disagreed with the judgment and never released Bakasi to Cameroon, and the rampant killing of politicians by the then government, this action led to the sanctioned of Nigeria from among members of the Commonwealth until 1999 when an elected government came to power, the Commonwealth re-admitted Nigeria and the European Union lifted all of the sanctions imposed on the country in 1995. The sanction was a reaction to the execution of Ken SaroWiwa, an activist slain by the Nigerian military regime of Sani Abacha. The United Nations Human Rights Commission on April 23 adopted by consensus a draft resolution condemning Nigeria's Human Rights record co-sponsored by the U.S. and many other nations, including South Africa. President Obasanjo's visit to former U.S. President Clinton was one of his first visits to heads of state. The United States welcomed the election of Obasanjo and re-established military ties with Nigeria.

The main objective of the study was to identify and examine the nature of the objectives of Nigeria's foreign policy between 1960-2015.

1.2 Theoretical perspective

The theoretical framework for this study is based on bilateral theory (Chime, 1977) and social complexity theory (Sjoberg 1960)A large number of published studies have examined the subject of bilateral and social complexity and the means by which it has been attained in the past. Many of these studies have considered the subject as a worldwide phenomenon, and in some cases their relevance to the African past is more implicit than explicit.

2.1 Related Literature

A major topic in any course on African international relations is the foreign policies of African states. According to (Delancey, 1980) on his work on "Aspect of International Relations in Africa" argued that Research and publication in this topic can be divided into two categories: studies pertaining to one state (case studies) and studies pertaining to several states (comparative studies) in which my research is going to focus on. Olajide Aluko, ed., *The Foreign Policies of African States* (1977) attempts to bridge the gap between case and comparative study. The volume contains analyses of the foreign policies of eleven states - Algeria, Egypt, Ethiopia, Ghana, Ivory Coast, Kenya, Nigeria, Tanzania, Uganda, Zambia and Zaire -

written by ten authors. But, the editor has also written a comparative essay drawing on the eleven cases as data. Case Studies: Nigeria, with its large population, relatively broad resource base and large army, is one of the major powers on the continent.

Although this state played a passive role in the early years of its independence, it has come to play an active leadership role in continental affairs, especially since the conclusion of its civil war. As a result of its position in African affairs and as a result of the relatively large number of Nigerian academics, there are a large number of publications on her foreign policy behavior. Two books by Nigerian authors are particularly important: A.B. Akinyerni , *Foreign Policy and Federalism: The Nigerian Experience* (1974) and G.J. Idang, *Nigeria: Internal Politics and Foreign Policy* (1973). Both devote most of their attention to the more passive period of Nigeria's foreign policy. B. Adebisi , "Nigeria's Relations with South Africa, 1960-1975" (1977) ; R.A. Akindele, "The Conduct of Nigeria's Foreign Relations" (1973); I.A. Gambari, "Nigeria and the World: A Growing Internal Stability, Wealth and External Influence" (1975) ; James Mayal 1, "Oil and Nigerian Foreign Policy" (1976); and O. Ogunbadejo, "Nigeria and the Great Powers: The Impact of the Civil War on Nigerian Foreign Relations" (1976) are examples of the many journal articles available that analyze the more active period.

3 Methods and Procedure

The study employed a Historical and Descriptive Case Study design, because it is heavily reliant on various on descriptive and interpretation of the various views and ideas of respondents. It is qualitative, it depend on information from various sections of society. The research population included the political leaders, Nigerian/Ugandan High Commission, Nigerian/Ugandan Ministry of foreign Affairs, Nigerian/Ugandan National Library, Religious Leaders, traditional/cultural leaders, historians of both countries. A sample of 60 oral information will be selected, bearing in mind the fact that unlike questionnaires which require a large sample, oral interviews do not require a large sample since the in-depth or detailed information is collected from key respondents, according Amin (2005). This sample will be selected randomly among Nigerian High Commission in Uganda, Ugandan High Commission in Nigeria, Federal Ministries of Foreign Affairs of both Nigeria and Uganda, Political Leaders as well as Historians.

This study employed the descriptive data analysis technique to analyze data from logs, journals and dairies, key note presentations, News papers, and published reports and articles regarding the relationship between Uganda and Nigeria on socio-political aspects. This involved reading and re-reading transcripts, looking at the common similarities and differences between the two countries that enabled the researcher to develop themes and categories which were later interpreted.

4 Findings: The objectives of Nigeria's foreign policy 1960-2015

The objectives of Nigeria's foreign policy are informed by a national creed or principles that Nigeria firmly upholds as a sovereign nation. Such principles, like King (1996) posits, are consistent with the ideological framework which informs its policy. The conception of national roles, formulation of policies, and conduct of external relations are thus inextricably controlled by these basic principles or fundamentals. The principles have been declared, discussed or analyzed at various times. The fundamental principles are geared towards protecting and advancing Nigeria's national interest. The principles include:

Respect for the territorial integrity and political independence of nation- states

Non-interference in the internal affairs of other states

Promotion of African unity through functional cooperation

Elimination of colonialism and racism and the promotion of world peace, and

Non-alignment in the Cold War struggle between superpowers and their allies (Nigeria Constitution, 1999)

The first principle, respect for territorial integrity of sovereign states is informed by the idea that Nigeria's ability to defend its own sovereignty is strengthened when states respect each other's territorial integrity. Respect for territorial integrity assumes added importance in Africa where arbitrary and

artificial boundaries created are subject to dispute, to engender continental and national stability. Ethelbert Umeh (2012) suggested that Sir Abubakar Tafawa Balewa had opined that such boundaries should be respected and, in the interest of peace, must remain the recognized boundaries until such time as the people concerned decide of their free will to merge into one larger unit. We shall discourage any attempts to influence such communities by force...since such interference could only result in unrest and...harm to the future of this great continent.

Nigerian borders cut across ethnic groups, or put differently, ethnic groups in Nigeria are by colonial design cut into other geographical entities. For example, the Yoruba of the southwest are divided between Benin Republic and Nigeria. The Efik-Ibibio, Ejagham and Ogoja peoples also straddle the borders along Nigeria and Cameroon; just as the Hausa-Fulani, Shuwa Arabs and Kanuri in the north also straddle the borders along Nigeria-Niger and Nigeria-Chad. Using ethnicity therefore as basis for self-governance would spell doom, and as such Nigeria has since the OAU Cairo Resolution of 1964, remained committed to "respect the borders existing on their (states'') achievement of national independence". This respect has earned for Nigeria the trust of smaller neighbours that it has no expansionist intentions (King, 1996), with the exception of Cameroon, which from the 1980s to the 2000s had strongly insinuated Nigeria's planned military and political expansion. This suspicion was increased by the diplomatic and military row with Equatorial Guinea, the controversy over ownership of the oil-rich Bakassi peninsula, and the surreptitious and underground French incitement against Nigeria's restless attitude in its neighbourhood.

The second principle, non-interference in the internal affairs of other states complements the first. Non-interference is not the same as non-intervention. Interference itself literally means an unwelcome involvement of an external or a second party in the national affairs of a sovereign state. Intervention however, is an acceptable development in international politics to help a state restore peace or to save a nation from an internal crisis that is becoming externalized or a huge humanitarian concern. OJOJA PATRICK (2003). The global community and African Union's presence in Sudan is, for instance, the case of intervention which the United Nations tacitly sanctions. The case of interference however, has been the US invasion of Iraq in 2003 with the purported mandate to "Free Iraq and establish a democratic government of the people".

The principle of non-interference is one that Nigeria has not been able to fully enforce in the face of the overriding interest of the major powers, especially when African states cheaply seek help from the powers in tackling domestic issues. For instance the Kano Accord of 1979 establishing a Transitional Government of National Unity in Chad in the face of national crisis was deflated by Hissene Habre when he quit the peace arrangement to pursue a cause of toppling the entire regime. Habre sought and got the aid of the US, Egypt, Sudan and France to topple the transitional government of Weddeye in 1982. Weddeye courted and got Libya's Gaddafi to oust Habre to restore himself in 1983, and thereafter, there started a wild goose chase between the two as one party overthrew the other with the help of foreign nations. Chad had thus become a client state. Nigeria became concerned because Chad, by its clientele disposition to major powers, posed a serious security risk to its Nigerian neighbour. The same goes for Benin,

Cameroon and Niger, who had France's military presence and looked up to that colonial power over every little domestic problem. However, Nigeria upholds this principle of non-interference as it relates to its African counterparts. It has not had a case of undue interference in the affairs of other African states. But it has intervened at critical moments on many occasions. Among such instances were the unilateral and subsequent multilateral intervention in the Liberian crisis from 1990 to the restoration of democratic rule in 2005, the engagement of the Sierra Leone warlords from 1994 to the eventual stabilization of the hitherto fragile democracy in that country in 1999. Other cases of Nigeria's legitimate intervention was the resolution of the political crisis in The Gambia by the Obasanjo administration, containment of the military attempt to dislodge the democratic government of Sao Tome and Principe, and the diplomatic resolution of the Togo and Congo crises in the early 2000s.

The third principle, African unity, like the first and the second stems from the nationalist and pan-Africanist ideological orientation of its foreign policy. Promotion of African unity as a cardinal

principle of Nigerian foreign policy is a cause to be approached committedly but pragmatically- for, as Balewa put it-an understanding of one another by Africans is the first practical step to be taken before political union. It was this cautious disposition to African unity that characterized Nigerian's own contribution to the creation of the OAU in 1963.

Nigeria's African unity principle was tested when the Civil War that erupted over the secession of Igboland or "Biafra" in 1967 nearly tore it apart. The government of the day fought resiliently with the firm resolve to keep Nigeria together as an indivisible entity. After the war, Nigeria played a central role in the formation of the Economic Community of West African States (ECOWAS) in 1975. This symbolized the fact that Nigeria believes in continental unity through functional cooperation. Nigeria also stood firmly behind Angola, Namibia and Zimbabwe in their liberation struggles and to wrest them from the Western chessboard used to perpetuate division in Africa. The support is borne out of the fact that the nation realizes that an unstable and a hostile international environment has to be confronted head-long if the agenda to build unity is to be realizable. The statement made by Balewa in the 1960s about Nigeria's own agenda for African unity which other nations, including Ghana should identify with seemed prophetic, as the Obasanjo administration from 1999 charted a new course and led the new vanguard for African unity. The efforts manifested in the establishment of the African Union (AU) in 1999, which replaced the Organization of African Unity (OAU). The repositioning of the African organization was considered important to meet the many new challenges of the continent, including war and conflict, hunger, poverty, diseases, global warming, neo-colonialism, democracy, globalization, and more.

The fourth principle, elimination of all appearances of colonialism and racism is again premised on its ideological background of nationalism and pan-Africanism. One of the manifestations of racial hatred and discrimination was the evil of colonialism. Both pose a serious threat to African and black progress and unity.

Nigeria thus considers itself burdened by the role to, like Balewa said "do anything towards the liberation of African countries" and with the responsibility to, according to Shagari (1979) "bring about the...rapid emancipation and development of all of the countries of Africa" and "ensure that all the oppressed peoples of Africa regain their freedom and dignity." The last phrase "oppressed peoples regain their freedom and dignity" suggests that Africa would face "colonialism after colonialism" or like most Third World scholars have often put it, "neo-colonialism" which is meant to perpetuate and accomplish the long-range objective of colonialism which is political and economic servitude. The successive political leaderships in Nigeria continued the crusade to end or at least discourage re-encroachment of colonialism through new strategies such as foreign aid, and cultural and ideological instruments. The Abacha regime was particularly anti-west, and carried out sweeping reforms in the main sectors of the domestic economy; while the Obasanjo administration attempted to promote a level-playing field with western economies through equal partnerships and foreign direct investment. On the African platform, the Babangida, Abacha and Obasanjo administrations led the debt reduction crusade to deflate neo-imperialism that is crystallized by the debt overhang. All these efforts did not however mean that there were no other contradictions that still kept Africa in the economic and political gridlock of the developed nations. African states still had foreign partners with whom there was economic understanding and from whom they still got grants and loans. Some other African states were still tied ideologically, militarily and economically to their former colonial masters. Even Nigeria that was championing the course of total emancipation from neo-colonialism was still guilty of taking facilities from the Breton Woods and subjecting itself to the conditionality from the financial cartels.

Non-alignment is the fifth major principle guiding Nigeria's foreign policy. Fresh from independence, this was the primary norm guiding the foreign policy. Non-alignment as a principle is the idea by a group of states not to take sides during the Cold War, with either of the feuding ideological powers. It is distinct from neutrality in that it implies an active participation in international affairs, but such participation would not go beyond mediation and reconciliation levels in the face of East-West conflict. The judgment of issues would be based on their merits rather than from predetermined positions. For

Nigeria, the “power-show” and ideological rivalry between the US and Soviet Union was considered irrelevant to the advancement of its national interest.

Nigeria favours the principle of non-alignment because it makes it more assertive and boosts its foreign policy objective of being a regional power. The principle discourages dependency in foreign policy by asserting the right to define and exercise options in international affairs free of ideological impediments, and helps in the shattering of unhealthy colonial ties and orients the country to develop new relations toward developing countries with whom Nigeria would likely share a wider scope of common concerns. However, several scholars perceived that Nigeria was not as non-aligned as it claimed on paper. The Balewa administration was considered to be pro-West and anti-East policies. These pro-West images were possibly a result of Nigeria’s colonial experience, during which educated Nigerians were socialized into Western values (Philips, 1964). In addition, Nigerians were nurtured in all aspects of Western life, albeit primarily of the British variety, during the colonial period. The policy actions commonly cited to substantiate the claim that Balewa was pro-West were summarized by Anglin (1964) as “delaying the establishment of diplomatic relations with the Soviet Union; imposing restrictions on the size of the Soviet mission in Lagos, on travel to Soviet bloc countries (especially for study), and on the importation of communist literature; discouraging Soviet bloc aid and trade; proposing a „two-China“ policy and supporting India in its dispute with China.” The other reasons he outlined were Balewa’s conclusion of a defence pact with Britain, permitting the establishment of “secret NATO radio station” in the country, refusing to attend the Belgrade Conference of Non-Aligned Nations, adopting a policy of silence on Cuba and Berlin and the resumption of US nuclear tests. The other policies were collaborating with the neo-colonialists in the Congo and opposing the creation of a union of African states (Anglin, 1964: 248). Though the Balewa administration later reversed some of these policies, the initial anticommunist policies created doubts as to its sincerity in the espousal of a non aligned policy on East-West issues. The amended policies included lifting the bans on travel to the USSR and on Soviet literature. The defence pact with Britain was abrogated following a series of domestic protests. Trade and cultural links with East European countries were marginally opened. Following the Nigerian Civil War, it is reasoned that the state learnt a lesson about the danger of relying on one power bloc or on the same group of countries. The Nigerian government quickly discovered that the traditional suppliers of arms, the UK and its allies, were not reliable: the US absolutely refused to sell arms to the Nigerian government during the war (Ogunbadejo, 1976). The “Biafrans” had succeeded in manipulating the west by an effective propaganda instrument that Nigeria was carrying out acts of genocide on them. Also, Britain and its allies had their own interests: for these two reasons, they were not in a position to respond positively to all of Nigeria’s military support requests. Hence, Nigeria had to turn to the Soviet bloc for assistance, which came immediately. With the backing of Soviet Union, the concepts of dependence and non-alignment took on new significance for Nigerian leaders. The West was unreliable and the East was helpful (Adigbuo, 2007; Aluko, 1971). The two scenarios created here demonstrate the weakness of the non-alignment principle in Nigeria’s foreign policy and the risk of inconsistencies this portended in national role conception.

The principle of non-alignment formally characterized the foreign policies of the regimes up to 1993. In practice, it was rather the opposite. For instance, the Murtala-Obasanjo regime, despite the non-aligned posture, identified more with socialist states and openly confronted the capitalist world. The Shagari and Babangida administrations embraced western states and the latter even put up an economic diplomacy that would engage western investments in the domestic economy. The Abacha regime effectively ended the era of alignment with the west, as it began to show a bias for the isolated nations of the Middle East and socialist bloc from 1995 (Saliu, 2006b; Fawole, 2004). However, Obasanjo’s administration identified with the cause of non-alignment, but by this time, there had been a momentous questioning surrounding the continued relevance of non-alignment in the face of a globalization orchestrated by the west, and more controversial was whether the nations had ever been truly non-aligned. The nature of capitalist economic development from the 1990s to date of some of the founding fathers of the Non-Aligned Movement (NAM), such as Indonesia and Egypt; and the socialist economic development of Yugoslavia and Tanzania further raised the need for a refocusing of the NAM.

5 Discussion; The objectives of Nigeria's foreign policy

From the findings of the study, it's clear that Nigeria's foreign policy are informed by a national creed or principles that Nigeria firmly upholds as a sovereign nation. Such principles, like King (1996) posits, are consistent with the ideological framework which informs its policy. The conception of national roles, formulation of policies, and conduct of external relations are thus inextricably controlled by these basic principles or fundamentals. The principles have been declared, discussed or analyzed at various times. The fundamental principles are geared towards protecting and advancing Nigeria's national interest. The principles include: Respect for the territorial integrity and political independence of nation- states; Non-interference in the internal affairs of other states; Promotion of African unity through functional cooperation; Elimination of colonialism and racism and the promotion of world peace, and Non-alignment in the Cold War struggle between superpowers and their allies

These findings are in line with the assertions of Ozigi and Ocho (1981) who found out that Promotion of African unity as a cardinal principle of Nigerian foreign policy is a cause to be approached committedly but pragmatically- for, as Balewa put it-an understanding of one another by Africans is the first practical step to be taken before political union. It was this cautious disposition to African unity that characterized Nigerin's own contribution to the creation of the OAU in 1963.

Nigeria's African unity principle was tested when the Civil War that erupted over the secession of Igboland or "Biafra" in 1967 nearly tore it apart. The government of the day fought resiliently with the firm resolve to keep Nigeria together as an indivisible entity. After the war, Nigeria played a central role in the formation of the Economic Community of West African States (ECOWAS) in 1975. This symbolized the fact that Nigeria believes in continental unity through functional cooperation. Nigeria also stood firmly behind Angola, Namibia and Zimbabwe in their liberation struggles and to wrest them from the Western chessboard used to perpetuate division in Africa. The support is borne out of the fact that the nation realizes that an unstable and a hostile international environment has to be confronted head-long if the agenda to build unity is to be realizable.

6 Conclusions

Nigeria- African relations have been characterized by certain landmarks, creation of OAU, ECOWAS and ECOMOG and of course in Promoting peace and unity within Africa, sometimes through dialogue, finance and sometime through used force where necessary for example in 2000 when President of Sao tome and principe paid an official visit to Nigeria the military took over the government at Sao Tome, the then President of Nigeria Olusegun Obasanjo returned him back to power by forced. Nigeria also tried tirelessly in bringing peace in Liberia, Sarrie Leone and etc. But the most unfortunate thing is, Nigeria tried so hard in assisting other African countries to solve their problems but she failed to solve her internal problems for example Boko Haram insurgency, Niger Delta avengers and the people South East of Nigeria who call for the independence and creation of Biafra states.

7 Recommendations

In view of the role strain of Nigeria and Africa relationship, which led to the wrong prioritization of government placing Africa above national interests, a new direction becomes imperative. While it is a truism that an average citizens of all African countries are proud to find their country playing important roles in global politics, they are more likely to be prouder when this is done after their own dignity is improved at home and abroad. This study recommends a policy shift from wasteful and unrewarding Afrocentrism, especially Nigerian extravagancies in doing other things rather than countries prioritization. This Nigeriacentrism would not imply the abandonment of leadership in Africa; it would mean the use of African leadership/national roles to better the interest of Nigeria in attending to national issues first which is a more honourable thing to do in the face of competing domestic and external pressures. Thus, Nigeriacentrism would complement traditional leadership in Africa and the principle of good

neighborliness, which in fact, implies that Nigeria is good to African neighbours only in so far as it serves the purpose of national (citizens) interest.

The diplomacy of consequence, according to many Nigerians is sensible but not adequate. They advocate the diplomacy of human dignity. By such the main or primary concerns of every government would be the basic necessities of life. These would include adequate and affordable potable water, modest housing for citizens, good and affordable educational opportunities, regular supply of electricity (for Ugandans electricity is available but is very expensive and for Nigerians there is no constant power supply) especially for luxury and economic development, motorable roads, prosperous economy, employment opportunities for the country, provision of good roads, good health care delivery and reduction of poverty. The reasoning here is that if all these infrastructural facilities are available to the citizens, more Nigerians would return home. The reason why many Nigerians become victims of assault abroad is because they flee to other countries for greener pastures and become susceptible to the intimidation and molestation of their hosts who see them as competing with their limited or abundant national resources and opportunities. Therefore, for the advocates of the policy change, charity must begin at home.

Nigeria should off-load its excess luggage of African commitment with the view of being seen as “the or a giant of Africa while its citizens have nothing whatsoever to show for this; Nigeria should stop being fatherchristmas, how Nigerian government could be more actively engaged and made to share equal responsibilities with statutory political groups in the politics of its external relations? This is a question for further study.

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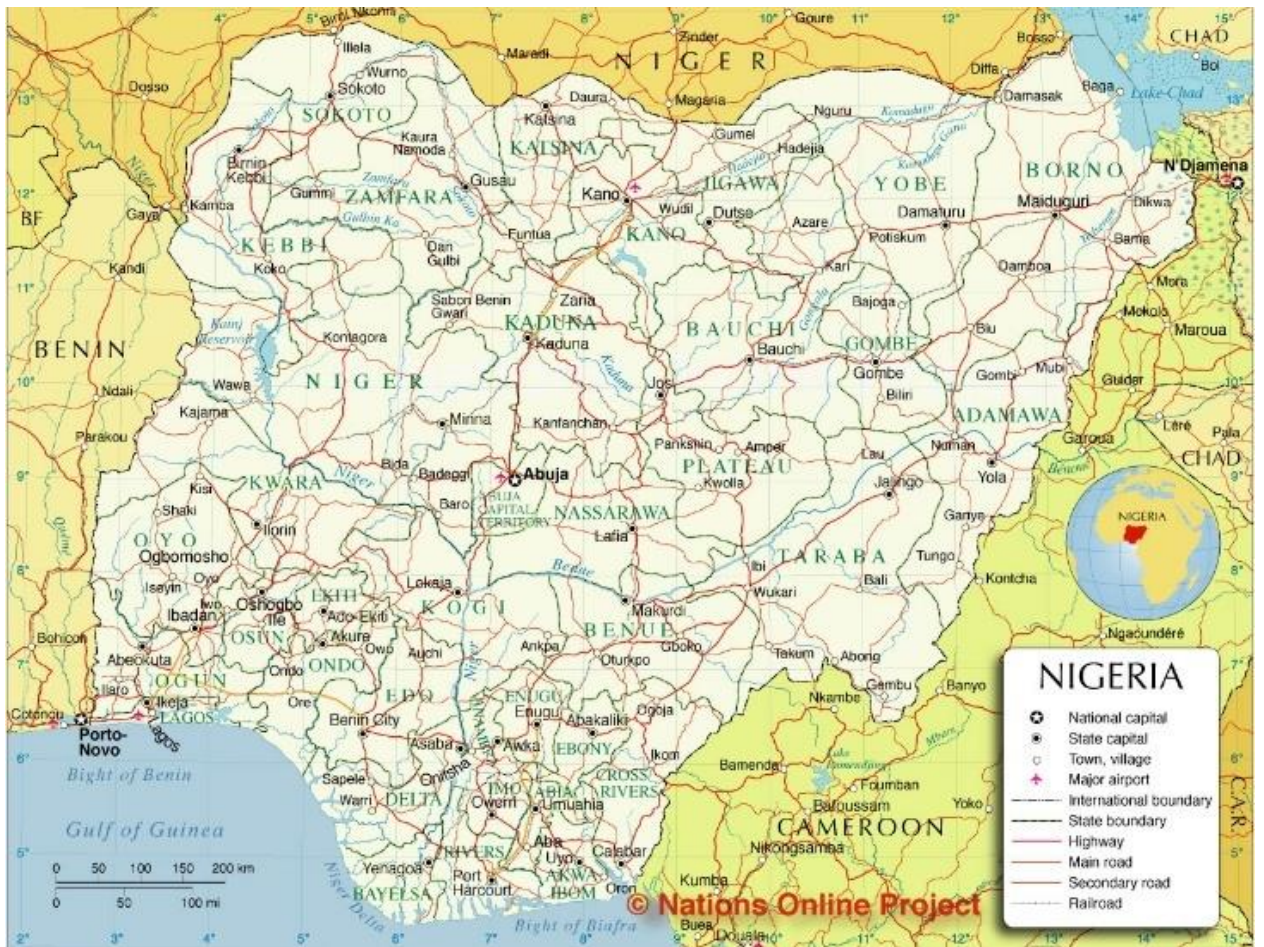
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MAP OF NIGERIA



BULLYING INCIDENTS EXPERIENCED BY INDIGENOUS STUDENTS THEIR COPING MECHANISM AND PARENTAL INVOLVEMENT: BASIS FOR A CHILD PROTECTION PROGRAM OF KNHS

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ABSTRACT

This study aimed to determine the bullying incidents experienced among indigenous students of Kawas National High School, Kawas, Alabel, Sarangani Province enrolled during the School Year 2016-2017 their coping mechanism and parental involvement : as basis for a child protection program. Specifically, it sought to answer the following questions: 1.What are the common bullying incidents experienced by the indigenous students?; 2.What particular incidents in related to: physical bullying, emotional bullying, and social bullying do they commonly experienced?; 3. What is their coping mechanism?; 4.What is the extent of involvement manifested by their parents?; 5.What child protection program can be proposed out from the results of the study?.

A research-made questionnaire was used in gathering the data from the 50 indigenous students together with their parents. It availed the use of Research and Development (R & D) type of research using mean (\bar{X}). It was found out that significant numbers of indigenous students are victimized by bullies. They always experienced belittled about their ethnic group, their looks and their speech which belongs to emotional type of bullying. Their coping mechanism is to cry. Majority of the parents sometimes involved themselves to prevent bullying in school, support their children and intervene.

INTRODUCTION

Students went to school to learn. They enjoyed and have fun learning everyday lessons. However not all of them felt the same ways. There are those who felt bored. As Anderson, Jennings & Arnoult (2008) had shared, individuals personality differ that there are children who are naughty especially if they don't feel interested on the subject matter. They tease others; they disturb their classmates while busy in class and make funny abuses noises.

Relatedly, Oliviero (2004) cited that a student abusing other students is an escalating problem in today's schools. Students are emotionally having problem when they heckle or "put down" others. This behavior often escalates into intimidation and physical aggression. Bullies often operate in secret, such as by

writing hurtful graffiti or encouraging classmates to exclude another student. Increasingly, bullies are using technology to circulate gossip and malicious rumors.

In the Philippines, greater awareness about bullying came into view. These happen on reports watched on TV about students being bullied. News that some students in some universities in the Philippines commit suicide just to find investigates reports point out to being bullied in school.

Statement of the Problem

This study aimed to determine the bullying incidents experienced among indigenous students, their coping mechanism and parental involvement: as basis for a Child Protection Program of Kawas National High School, Kawas, Alabel, Sarangani Province enrolled during the School Year 2016-2017.

Specifically, it sought to answer the following questions:

1. What are the common bullying incidents experienced by the indigenous students of Kawas National High School?
2. What particular incidents in related to:
 - a. physical bullying;
 - b. emotional bullying; and
 - c. social bullying do they commonly experienced?
3. What coping mechanism did the indigenous students manifested?
4. What is the extent of involvement manifested by their parents?
5. What child protection program can be proposed out from the results of the study?

Definition of Terms

Bullying Incidents refer to unacceptable behaviors or actions experienced by the indigenous students of KNHS from peers or classmates that are considered socially, emotionally, and physically degrading to their individuality. These bullying incidents experienced were determined using a Survey Questionnaire on Bullying Incidents.

Coping Mechanism used by the Indigenous Students refers to the characteristic or behavioral pattern of KNHS indigenous students that enhances their adaptation in their school environment. This was determined using the Coping Strategy used by the IP Students Survey Form.

Parental Involvement refers to the participation of parents to prevent the bullying behaviors of KNHS students especially parents who are suspecting that their school child was a target of bullying. This was measured using the Parental Involvement in Preventing Bullyin

Brief Review of Related Literature

A review of literature indicated that bullying is becoming a large problem in school districts across the nation. Although, schools are making an effort to tackle the problem by using various anti-bullying approaches, it is a wonder as to whether or not the involvement of parents and families makes a difference in student behaviors.

Bullying is often defined as unprovoked aggressive behavior repeatedly carried out against victims who are unable to defend themselves.

Arseneault et al.(2011) described bullying to mothers as “someone is being bullied when another child (a) says mean or hurtful things, makes fun, or calls a person mean and hurtful names; (b) completely ignores or excludes someone from their group of friends or leaves them out of things on purpose; (c) hits, kicks, or shoves a person or locks them in a room; (d) tells lies or spreads rumors about them; and (e) other hurtful things like these”. They found out that children who experience abuse early in life show adjustment problems such as posttraumatic disorders, depression, and conduct problems. Because bullying is primarily caused by fitting in with social groups, students with disabilities tend to be victimized more their non-disabled peers.

Raskauskas & Modell, (2011) defines bullying as one of the most predominant problems faced by children in the United States education system, as well as one of the most significant health risks to children. Bullying happens a lot more often than what is just seen and heard in the hallways and can take on many forms. Physical aggression, threats, insults, spreading rumors, social exclusion, and mocking the victim’s culture, disability, or sexual orientation are some of the more popular forms that happen on a regular basis. These forms of behavior can have some serious effects on children’s well beings. Children who are victimized or rejected by their peers are more likely to display physical, behavioral, developmental, and learning disabilities than matched control groups.

Merell, Gueldner, Ross, & Isava (2008) stated that through family, school and community partnerships, children and adults can develop the social emotional learning skills necessary to effectively manage themselves and their relationships with others. Home visitation programs and other parent support

efforts serve as critical entries for assuring that children and youth learn about social emotional learning skills at home and then have these values reinforced at school.

A recent analysis of over 213 evaluation studies of SEL in schools found improvements in student behavior and academic achievement, reporting a 22% increase in social emotional skills, a 9% increase in positive attitudes and pro-social behavior, a 9% decrease in conduct problems, 10% decrease in emotional distress and an 11 percentile increase in test scores following implementation of evidence based social emotional learning curriculum (Durlak 2011).

Any bullying prevention effort also needs to consider the social context in which bullying occurs and the group dynamics that may either perpetuate or prevent bullying behavior. More recent school based programs are examining ways to build the capacity of witnesses to intervene. There is a growing body of evidence that suggests that when school climate is improved, children are more likely to remain engaged in learning and stay in school.

Synthesis

The ideas and views from the literature and studies included in this study had provided information about past researcher related to the present study. This gained information gave the researcher a feeling of confidence because reviewing these literature and studies, all constructs related to the study were made clear and available at hand. It provided the conceptual framework of the present study.

Conceptual Framework

Figure 1 presents the conceptual framework. There are two variables indicated in this study. These variables are bullying incidents experienced by indigenous students their coping mechanism and parental involvement: basis for a child protection program. Bullying incidents experienced by indigenous students their coping mechanism and parental involvement serve as the input variable of the study. This means that it is the cause or the basis of a proposed child protection program. It indicates that child protection program is the output variable of the study.

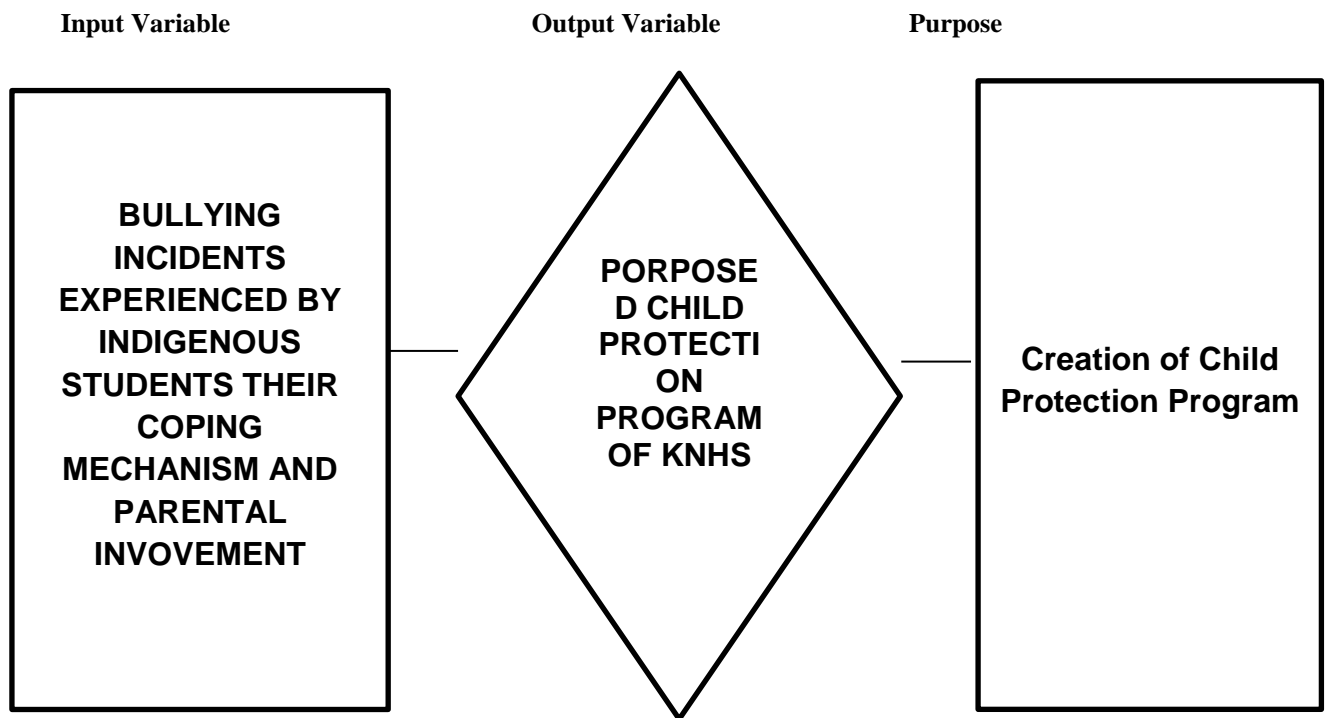


Figure 1. The Conceptual Framework Paradigm

METHODOLOGY

Research Method

This research made used the research and development (R & D) type of research particularly descriptive-survey because the researcher wanted to find out the Bullying Incidents Experienced by the Indigenous students their Coping Mechanism and Parental Involvement: Basis for a Child Protection Program of Kawas National High School. According to Paler-Calmorin and Calmorin (2007) descriptive-survey are the most appropriate to use if the intention of the research is just to gather existing condition of a certain variable.

Respondents

The populations involved in the study were the 50 Indigenous Students enrolled during the SY 2016-2017. Inasmuch as the population size was small entire population or census was employed. It means that there was no sampling technique employed in the study. As what Paler-Calmorin and Calmorin (2007) stated if the population size is small entire population was the most appropriate method to get the respondents of the study. It could be noted that there are 21 male students and 29 female students having a total of 50 indigenous students. These 50 indigenous students belong to BLAAN Tribe. Table 1 presents the distribution of respondents.

Table 1

Distribution of Respondents

Grade Level	Male	Female	Total
7	6	5	11
8	7	9	16
9	3	6	9
10	5	9	14
Total	21	29	50

The Research Instruments

There were three instruments used in this study. These were the Bullying Incidents Survey Form, Coping Mechanism Manifested by the Indigenous Students and Questionnaire on Parental Involvement.

Bullying Incidents Survey Form. This instrument was designed to determine the prevalent bullying behaviors existing among intermediate and high school classes. This was prepared where items were lifted from literatures and studies read related to bullying. This instrument is a research made wherein it composed of 9 items which was translated into BLAAN Language

Questionnaire on Coping Strategies Manifested By Indigenous Students. This instrument is designed to determine the characteristic or behavioral pattern of KNHS indigenous students that enhances their adaptation in their school environment. This is a research-made questionnaire and composed of 12 items which was translated into BLAAN Language.

Questionnaire on Parental Involvement. This instrument designed to determine the parents' involvement to prevent incidents of bullying in school. This instrument is a research made, composing of 11 items which was translated into BLAAN Language.

RESULTS AND DISCUSSIONS**Common Bullying Incidents Experienced by the Indigenous Students of Kawas National High School**

Subproblem number 1 presents the result about the common bullying incidents experienced by the indigenous students of KNHS. It was found out that there are nine (9) types of bullying incidents the indigenous students most possibly experienced. It was found out that the common type of bullying experienced by the indigenous students are first: they were always belittled about their ethnic group, their looks and their speech ($\bar{X} = 5.00$); second: they are always subject of malicious rumors ($\bar{X} = 4.58$); third:

they are always the subject of teasing ($\bar{X} = 4.76$); fourth: they always experienced social exclusion ($\bar{X} = 4.75$).

It was also found out that they often experienced of being hit, slapped or pushed ($\bar{X} = 3.68$); subject of rumors ($\bar{X} = 4.28$); subject of sexual comments or gestures ($\bar{X} = 3.60$) and seldom they experience Cyber bullying ($\bar{X} = 1.62$).

These results signify that significant numbers of students are victimized by bullies.

Particular incidents related to physical bullying; emotional bullying; and social bullying they commonly experienced

Subproblem number 2 presents the result of a particular incident related to physical bullying; emotional bullying; and social bullying they commonly experienced. Based on the result of subproblem no.1, the indigenous students were always belittled about their ethnic group, their looks and their speech ($\bar{X} = 5.00$); second: they are always subject of malicious rumors ($\bar{X} = 4.58$); third: they are always the subject of teasing ($\bar{X} = 4.76$); fourth: they always experienced social exclusion ($\bar{X} = 4.75$). These items belong to emotional type of bullying. Therefore, the particular incidents experienced by the indigenous students belong to emotional type of bullying.

Coping Mechanism of Indigenous Students

Subproblem number 3 presents the result about the coping mechanism of indigenous students. As seen on the table they always manifested crying ($\bar{X} = 4.56$). They often ignore it ($\bar{X} = 3.56$); bottled it up ($\bar{X} = 3.80$); hit them/shouted back/ threatened them with my brother ($\bar{X} = 3.64$); always absent/stay away from school ($\bar{X} = 4.06$); and they often avoid the bullies ($\bar{X} = 3.74$). They sometimes manifested fear of going to school ($\bar{X} = 3.16$); got stomachache and headache ($\bar{X} = 3.28$); tell them it hurts/ask them to stop ($\bar{X} = 2.90$); and sometimes seek attention of teachers tell them it hurts/ask them to stop ($\bar{X} = 3.18$). Therefore, the coping mechanism used by the indigenous students of KNHS is crying. According to them, crying could ease their pain and could provide emotional relief when they become a victim of bullying.

The Extent of Involvement Manifested By Their Parents

Subproblem number 4 presents the result about the extent of parental involvement manifested by their parents. It could be seen from the data that they often teaches their child relationship skills ($\bar{X} = 3.66$); they often teachers their child how to find good friends and build relationships ($\bar{X} = 3.00$); some of the parents often doesn't want their child to go to school ($\bar{X} = 3.28$).

Furthermore, they sometimes teach their child to handle conflict ($\bar{X} = 2.76$); they sometimes teach their child on how to be assertive but not aggressive ($\bar{X} = 2.82$). They sometimes help their child practice what she/he should do the next time ($\bar{X} = 2.64$). They sometimes involve their family with their child in learning activities ($\bar{X} = 2.76$). They sometimes considered community collaboration ($\bar{X} = 2.62$). They sometimes intervene if there are problems by using the NO BLAME approach like if their children have prolonged unhappiness ($\bar{X} = 2.62$); experiences frequent headache ($\bar{X} = 2.72$) and experiences serious change in grades ($\bar{X} = 2.94$).

Child Protection Program formulated out from the results of the study

The result of this study would serve as the baseline of child protection program of Kawas National High School. Bullying incidents should be regulated inside the classroom. If these incidents would be taken only for granted, it would grow wherein it could affect students emotional aspects.

School authorities should find ways to prevent bullying cases in school.

School administrators should be vigilant in implementing their school policies related to bullying.

There should be an orientation for teachers, faculty members and students regarding the child protection policy.

Train students who are capable in acting like a police man/woman inside the campus to be vigilant and hold those students who are bully and a victim of bullying.

Putting-Up Sanction Bulletin Board & Signage's concerning child protection program.

Putting-Up Guidance Sharing and Function Room where in students who are victims of bullying can share their painful experiences.

Creating Total Transformation Session where in the parents can learn to talk with their children to solve problems.

CONCLUSION AND RECOMMENDATION

Conclusions

In the light of findings, it was concluded that:

1. It was found out that the common type of bullying experienced by the indigenous students are they were always belittled about their ethnic group, their looks and their speech. These results signify that significant numbers of IP junior students are victimized by bullies.
2. The particular incidents experienced by the indigenous students belong to emotional type of bullying.

3. The coping mechanism used by the indigenous students of KNHS is crying. According to them, crying could ease their pain and could provide emotional relief when they become a victim of bullying.
4. Majority of the parents sometimes involved themselves to prevent bullying in the school place of their children, support their children and intervene.
5. The results of these data could be a good source as baseline to a proposed child protection program.

Recommendations

Based on the results, it is recommended that:

1. School administrators are encouraged to use the findings as reference to guide them in formulating actions which could prevent bullying.
2. Teachers should use the result to understand and handle bullying existing in their classes so that it could help prevent the prevalence of bullying behaviors.
3. Parents could use findings of the study to help them understand that they should pay attention to the behaviors of their children at home to determine if being bullied or they are bullies before it would be too late to act, to help them.
4. Students should use the information gathered to help them to be equipped with necessary knowledge, skills and habits that would prevent them to become victims of bullies and to try to go with peers who would bring them to healthy companionship rather than to become bullies.
5. Researcher, she would be provided with literature that would make her rich in information to locate, identify and prevent the prevalence of bullying not only in her classroom but to the entire school. She would have related studies to refer to if she needed what effective strategies to employ if ever such bullying behaviors are experienced in their own classrooms/school.

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