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CONTENTS

- 1 PUBLISHER, EDITOR IN CHIEF, MANAGING EDITOR AND EDITORIAL BOARD**
- 2 SOCIO-ECONOMIC SURVEY OF RICKSHAW PULLERS IN DHAKA, BANGLADESH**
MEINHAI HOSSAIN, RESHMA BANU, M.R.H. KHAN, SHUVOJIT CHAKRABORTY, ABU BAKAR SIDDIQUE, NISHAT SHARMIN, MD. ANIK AHMED
- 3 DATA ANALYTICS EDUCATION: A LONGITUDINAL VIEW**
CHARLES E. DOWNING, CHANG LIU
- 4 THE TOURIST VALORIZATION OF THE ACCOMMODATION FACILITIES ON THE E-75 MOTORWAY IN THE REPUBLIC OF NORTH MACEDONIA FOR THE DEVELOPMENT OF TRANSIT TOURISM**
CVETANKA RISTOVA, NIKOLA DIMITROV
- 5 EFFECTS OF TRANSFORMATIONAL LEADERSHIP AND PERCEIVED FAIRNESS ON JOB SATISFACTION: EVIDENCE FROM MIDDLE EAST**
RAFEED FAIZ ALI ABOZAIID, RAFIQ MANSOOR, ZUBAIR NAWAZ, RASHAD FAIZ ALI ABOZAIID, AQEEL MANSOOR, MOHAMMED HAFEDH
- 6 DECISION MAKING STYLES OF YOUNG PAKISTANI CONSUMERS: A STUDY OF CONSUMER STYLE INVENTORY (CSI)**
ZUBAIR NAWAZ¹, JING ZHANG, RAFIQ MANSOOR, AFAQ AHMAD, IHTESHAM ALI BANGASH
- 7 MOBILE-PHONE APPLICATION IN WATER CONSTRAINED ENVIRONMENT FOR EFFECTIVE LOCAL ENTREPRENEUR WATER SUPPLY AND DELIVERY MANAGEMENT: A DEVELOPING COUNTRIES PERSPECTIVE**
OLABODE SAMUEL AKINSOLA, ALFRED COLEMAN
- 8 EMOTIONAL INTELLIGENCE EFFECT IN HEALTH SECTOR: A LITERATURE REVIEW**
SAWSAN M. ALDAOUD, RATEB J. SWEIS, AFNAN R. ALAWNEH, MAIS JARADAT
- 9 EFFECTIVE MANAGEMENT IN DISTRICT COURT RECORD SCANNING & DIGITIZATION**
SANJAY RAMBHAU SALKUTE
- 10 DETERMINANTS OF LIFE INSURANCE CONSUMPTION IN EMERGING INSURANCE MARKETS OF SOUTH-ASIA**
WEEDIGE SAMPATH SANJEEWA, OUYANG HONGBING, SHUJAHAT HAIDER HASHMI
- 11 INFORMATION SEARCH AND INTENTIONS TO PURCHASE: THE ROLE OF COUNTRY OF ORIGIN IMAGE, PRODUCT KNOWLEDGE, AND PRODUCT INVOLVEMENT**
YOSSIE ROSSANTY, MUHAMMAD DHARMA TUAH PUTRA NASUTION
- 12 IMPACT OF EXPORTS AND IMPORTS ON ECONOMIC GROWTH IN CASE OF PAKISTAN**

DIL JAN, MAAZ AHMAD, SAEED ULLAH

- 13 TOTAL QUALITY MANAGEMENT AND ORGANIZATIONAL PERFORMANCE: A PROPOSED MODEL ON THE MODERATING EFFECT OF TECHNOLOGICAL TURBULENCE**

WANIKO EBENEZER NDABAKO, TAOFIK ABIDEMI BELLO, NAJEEMDEEN SHIYANBADE ILIYASU
- 14 DOES OPTIMISM AND WORK ENGAGEMENT MATTER TO IMPROVE JOB PERFORMANCE? AN EMPIRICAL STUDY**

MUHAMMAD NAVEED JABBAR, MUHAMMAD NAWAZ, FAISAL UR REHMAN, GHULAM ABBAS BHATTI, ANUM CHOUDHARY
- 15 ISSUES IN CONTEMPORARY MARKETING EDUCATION**

AGU GODSWILL AGU
- 16 QUALITY OF MARKETING EDUCATION AND THE PERFORMANCE OF MARKETING GRADUATES IN NIGERIA: NEED FOR THEORY-PRACTICE SYNERGY**

AGU GODSWILL AGU
- 17 INVESTIGATING THE ROLE OF TOURISM IN THE CONSERVATION AND SUSTAINABLE DEVELOPMENT OF THE ENVIRONMENT: A GEOGRAPHIC APPROACH**

MAHTAB JAFARI
- 18 THE CAUSALITY BETWEEN MACROECONOMIC FACTORS ON STOCK RETURNS: A STUDY OF PAKISTAN EQUITY MARKET**

MUHAMMAD TAHIR, ANNI GUL, SOMIA QAZI
- 19 CRITIQUE OF PHILLIPS CURVE: A CASE STUDY OF ZIMBABWE ECONOMY**

SHAME MUKOKA
- 20 DEVELOPMENT OF THE LABOR MARKET IN THE REPUBLIC OF MACEDONIA**

MIMOZA SERAFIMOVA
- 21 INDEX CONSTRUCTION – MEASURING INTERNAL AND EXTERNAL CORPORATE SOCIAL RESPONSIBILITY**

HABARAGODA B.S
- 22 CONSIDER THE COST OF POOR QUALITY IN A A TWO LEVEL SUPPLY CHAIN**

JIA-CHI TSOU

Publisher: Elite Hall Publishing House**Editor in Chief:**

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E-Mail: commercesundar@gmail.com

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E-mail: m.alawin@ju.edu.jo

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Vietnam
Email: dinhuy2010@gmail.com

Dr. Cüneyt AKAR
Associate Professor, Department of Business Administration
Bandirma Onyedi Eylül University, Turkey
Email: cakar@bandirma.edu.tr

Dr. Abdul Hafaz Ngah
Senior Lecturer, School of Maritime Business and
Management,
Universiti Malaysia Terengganu, Malaysia
Email: hafaz.ngah@umt.edu.my

Web: <http://ijibm.elitehall.com>

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SOCIO-ECONOMIC SURVEY OF RICKSHAW PULLERS IN DHAKA, BANGLADESH

Authors: Dr. **Meinhaj Hossain**, Assistant Professor, College of Business Administration, International University of Business Agriculture and Technology (IUBAT)

Corresponding Author: **Meinhaj Hossain**,

Other Authors: **Reshma Banu, M.R.H. Khan, Shuvojit Chakraborty, Abu Bakar Siddique, Nishat Sharmin, Md. Anik Ahmed** [Correspondence email for all authors are meinhaj.hossain@iubat.edu]

Affiliation: University of Business Agriculture and Technology (IUBAT)

Address: IUBAT, 5 Embankment Drive, Sector 10, Uttara, Dhaka 1230, Bangladesh

Email: meinhaj.hossain@iubat.edu

Abstract:

A survey of rickshaw pullers in Dhaka, Bangladesh that looks at various economic and social demographics, comparing the findings with some other past researches, including income, opportunity cost, rent, ownership of land, and more.

Keywords: Economics, Demography, Rickshaw, Bangladesh, Survey, Rickshaw Pullers

JEL Code: J11, D001, A10, D10

I. Introduction

Bangladesh is a densely populated country where labour is relatively cheap (Rahman & Siddiqui, 2015, p. 7) and rickshaw pulling is a means of livelihood. Rickshaw pullers are a distinct socio-economic group in Bangladesh, who earn a wage by physical manual labour. Rickshaws are a bicycle-like transport vehicle that can carry two or three people by a single rickshaw puller.

Dhaka is the capital city of Bangladesh, and its largest metropolis. It is also one of the major cities of South Asia with an estimated population of more than 15 million, and the 8th largest city globally. It is also considered to be among the world's most densely populated cities. (Haque, Tsutsumi, & Capon, 2014)

In the city of Dhaka, rickshaw pullers are not residents, but generally come from rural parts of Bangladesh. This paper looks at some of the demographic, sociological and economic factors of this socio-economic group. As an exploratory research, an attempt is made to find peculiar patterns and insights.

Cycle rickshaw pullers are an underprivileged section of society engaged in transportation as a means of earning a living. Pulling rickshaw is a menial and hazardous occupation. Rickshaw pullers are a vulnerable group with most of them being migrants from rural areas, and with the vast majority now

owning their own rickshaws. They are in a constant struggle and competition, working in the heat of the day, and dependant on their physical capacities.

II. Background of the Study

Dhaka is the capital of Bangladesh, with a population of 19.578 million (2018 estimate) (CIA Factbook, 2018). While there are no figures for the number of rickshaw pullers in Dhaka, it is estimated that 1.5 million rickshaw pullers in the country as a whole (New Age, 2015, p. 5). Rickshaw pullers are mainly migrant workers, coming from rural areas, and are a marginalized and economically disadvantaged community. Many studies have been conducted regarding rickshaw pullers, some of which are outlined in the next section.

Historical Background

Rickshaws originated in Japan. The word itself is derived from Japanese: *jinrikisha* where *jin* means human, *riki* stands for power and *sha* for vehicle. This gave rise to literally “human-powered vehicle”. It was invented in Japan in 1869 due to a ban on certain wheeled vehicles. Japan was growing at that time with a rising urban population. This gave rise to the rickshaw. (Choudhury, 2015)

In 1880 rickshaws came to South Asia from Japan. With rising urbanization, rickshaw rapidly gained popularity in South Asia. Low labour costs helped the industry. They appeared first in Shimla. It took them 20 years to get introduced in Calcutta. In the beginning rickshaws in Calcutta was used only by Chinese traders for transportation of goods. Later in 1914, the Chinese got permission from the government to use rickshaws for transporting passengers. In the beginning rickshaws were used by the English colonists and the upper class. Rickshaw pulling was often the first job a peasant migrant would get when he came to the city. (Choudhury, 2015)

In the beginning, rickshaws were used by the English for private transportation. Higher class people would also have a personal rickshaw puller. This was also seen as a status symbol, indicating social hierarchy. Cheap labor was available due to the decrease in the standard of living of Indians during colonial rule, and due to rural migrants to cities. (Choudhury, 2015)

In recent years, with urbanization being a major issue, and problems of sustainability, pollution and traffic congestion increasing, rickshaw pulling can perhaps be seen as an eco-friendly and sustainable way of transport. Rickshaws are today a common mode of transportation throughout South Asia. It is also an important source of income for the underprivileged. Today, rickshaws are also technologically evolving, such as electric rickshaws and in the use of new materials such as aluminum and other lighter materials. However, the vast majority of rickshaws are still made traditionally in Bangladesh, with little to no aluminum use. At the same time, there is a growing number of electric rickshaws particularly in the rural regions.

In Dhaka, rickshaws are increasingly blocked from major roadways, and sectioned into residential zones. For instance, it is very difficult for rickshaw pullers in the Baridhara area to pull rickshaws outside their area, due to the sectioning off of the DIT road, and strict restrictions enforced.

Rickshaws remain a decent mode of convenient mobility within a small area, particularly in the urban

context. The rickshaw has improved the lives of not only the rickshaw puller but also the passenger. It is a decent income for aspiring social climbers from the rural areas. They provide a good alternative to pollution-causing locomotives. Rickshaws are part and parcel of life in Bangladesh and South Asia and likely to continue to be so, given the abundance of low cost labor. However, as Bangladesh's income increases, rickshaw pulling can become a more scarce and dearer activity, with cost increases and new alternatives such as electric rickshaws coming to the fore.

Rickshaws and rickshaw pulling is likely to evolve more as technology transforms this mode of transportation. It is possible that newer materials would be used to make future rickshaws and new mechanical and electronic equipment installed. This is the evolutionary nature of technological change and will likely continue to incrementally transform the rickshaw with time. As an environmentally friendly form of transportation, it is hard to beat the utility of a rickshaw in the urban context – with little to no need for fossil fuel use.

III. Literature Review

Similar researches have been done in the past, of rickshaw pullers in Bangladesh and in India. One research by Chronic Poverty Research Centre (CPRC) studied various socio-economic factors of rickshaw pullers in urban Bangladesh, but is dated 2004 (Begum & Sen, 2004). The other issue with such reports, and similar reports from local NGOs, is the conflict of interest; it pays to show a problem exists and this could potentially skew the data.

While the CPRC report looked at urban rickshaw pullers in general, another survey looked at rickshaw pullers in Dhaka city, but is even more dated (Tawhidul, Hassan, & Salahuddin, 1995). Socio-economic surveys of rickshaw pullers have also taken place in neighbouring India such as by Mushir Ali for rickshaw pullers in Uttar Pradesh (Ali, 2013). Another study in India was conducted in Delhi looked to study rickshaw pullers' socio-economic circumstance with a view on how to alleviate poverty (Takashi, Sawada, Banerji, & Mishra, 2007).

Within Bangladesh, a survey was conducted in the city of Comilla in 2014 (Sadekin, Aktar, & Pulok, 2014). A USAID survey looked at rickshaw pullers in Bangladesh with an emphasis on protection from STDs and HIV/AIDS (Bhuiya, Rahman, Zahiduzzaman, & Khan, 2007). Bangladesh Bureau of Statistics (BBS) conducted a study of income rickshaw pullers and found that they earned a monthly income of 11,517 (New Age, 2015, p. 5).

IV. Methodology

This survey was conducted in the 2017-2018 period and used stratified random sampling, with the strata including the following urban locations in Dhaka city: Uttara, Narda, Gulshan 2, Baridhara, Dhanmondi, Zibatola and Jatrabari. Due to resource constraints, the survey was limited to a sample size of 120, and due to extraneous factors, actual data collected was from 103 respondents.

To get the rickshaw pullers to participate in the survey, a small remuneration was paid (10 BDT). This was done to get their cooperation and to get qualitatively better answers that were seriously given. The

number of people conducting the survey was five.

V. Demographics of Rickshaw Pullers

The study found some basic demographic information about rickshaw pullers.

The average age of rickshaw pullers was found to be 34. This was 4 years younger than the CPRC study (38) (Begum & Sen, 2004, p. 6). It is unclear why this gap exists. It is possible this is due to exogenous factors, survey bias since this study used students to do the survey and the CPRC used their staff, with the latter likely to be older. It is also possible that this difference can be explained by the CPRC study being for all urban areas in Bangladesh, and this study focused on Dhaka, and that younger rickshaw pullers are more likely to go further from home for longer, meaning that the population of rickshaw pullers in Dhaka is in fact younger than the general population of rickshaw pullers in urban Bangladesh.

The study found that 90% of the respondents were married. This was comparable to the CPRC data, which had 87% respondents with the same marital status. Average number of children was found to be 2.2, when counted from total married respondents.

Virtually all the surveyed rickshaw pullers came from outside of Dhaka, indicating their migrant nature. This is also indicative in their most common prior employment which was farming (46.6%), followed by business (8.7%) and labourers (6.8%).

Respondents were asked a theoretical question about the opportunity cost of pulling rickshaws by asking what they would do if they did not pull rickshaws tomorrow. It was found overwhelmingly that they would choose to do farming (46.6%), while others chose to go into business (14.6%), with 11.7% suggesting they did not know. If we take out those that do not know, it was found that in fact 52.7% would go back to farming.

Monthly income was found to be 11,157 Bangladeshi Taka (BDT) per month. This was comparable to the BBS survey of 11,517 BDT (New Age, 2015, p. 5), but highly contrasts with the CPRC survey data (4,591 BDT) (Begum & Sen, 2004, p. 15).

Average house rent was found to be 1,876 BDT. Average number of family members was found to be 5.8. Average number of family members living in village home was found to be 3.8, while the average for those living in Dhaka was 1.9.

It was found that rickshaw pullers work 8.4 hours a day, and 56 hours per week. This means that on average, rickshaw pullers work 6.7 days a week. While this indicates they work hard while in Dhaka, it was found that rickshaw pullers visit their village home with surprising frequency – 7.8 times annually. The average duration of each visit to their village was found to be 11.4 days.

95.1% of rickshaw pullers rent their rickshaw. On average, they pay 105 BDT. However, the standard rate for the average rickshaw is 110 BDT. The lower average is linked to damaged or old rickshaws, or in sections of the city where the local rent is lower.

The study found that 44.7% of rickshaw pullers own farm land. It was also found that rickshaw pullers as a socio-economic group are improving, as 70% of all rickshaw pullers send their children to study either at a madrasa or a school.

VI. Generational Differences between Rickshaw Pullers

Respondents of the survey who were 40 year old or older had an age range from 40 to 66. The average number of children for this group was 2.92. This contrasts with another sample age range 30-39, who on average had 2.41 children. This lower rate of reproduction may be indicative of social changes between generations. This difference in the two age groups was found to be statistically significant at the 95% confidence level.

The oldest 25th percentile also indicated different opportunity costs, and employment alternatives. 50 percent of the oldest 25th percentile were interested in going back to farming if they did not engage in rickshaw pulling. In contrast, the youngest 25th percentile were much less interested in returning to farming should they not pull rickshaws, with only 25 percent wanting to go back to farming.

VII. Relationship between Income, Age and Marital Status

The relationship between income on the one hand, and age and marital status on the other was studied using regression analysis. Income was kept as the dependant variable, while age and marital status were indicated as the independent variables. The data analysis yielded the following output, when tested at the 95 percent confidence level:

Regression Statistics					
Multiple R	0.317443				
R Square	0.10077				
Adjusted R Square	0.082785				
Standard Error	774.7969				
Observations	103				
ANOVA					
	df	SS	MS	F	Significance F
Regression	2	6727226	3363613	5.603125	0.004937878
Residual	100	60031026	600310.3		
Total	102	66758252			
	Coefficients	Standard Error	t Stat	P-value	
Intercept	2970.76312	320.9935364	9.2549	4.25E-15	
Age	-25.35464035	8.900362952	-2.84872	0.00533	
Marital					
Status	749.9826254	278.0825712	2.696978	0.008213	

The p-values indicate a significant relationship between the dependent and independent variables, suggesting that both age and marital status play a role among rickshaw pullers in predicting how much income they earn.

VIII. Conclusion

Rickshaw pulling is a major economic activity in South Asia, even though it originated elsewhere. While rickshaw pulling has died out in its place of origin, it continues to be a major industry in South Asia; cheap labor has helped propel rickshaw to a major source of private transportation here.

This study was conducted over a period of a year and involved surveying rickshaw pullers from various locations of Dhaka. The research was then compared to similar researches. The study matched data from similar studies, such as the CPRC study and from BBS, although significant differences were found, such as in monthly income, where the data from this study matched BBS but contrasted with the CPRC study. Overall it appears that our study gives a brighter picture of the socio-economic condition than the CPRC study. The study found generational differences between rickshaw pullers, particularly as to the opportunity costs and choices that younger rickshaw pullers make compared to older generations.

The study found a relationship between the income, marital status and age of rickshaw-pullers through regression analysis. The research found greater scope for further research, particularly related to, for instance, the use of technology by rickshaw pullers and ecommerce. Some research has already been done in this area, for instance, 76% of Rickshaw pullers in Dhaka send money home using cell phones. (Saha, 2014), another study shows that most of the rickshaw pullers (86%) use “bkash” to transfer money. (Sadekin, Aktar, & Pulok, 2014, p. 1145)

In recent years, with urbanization and problems of sustainability and the environment, rickshaw pulling can perhaps be seen as an eco-friendly and sustainable way of transport. Rickshaws are today a common mode of transportation throughout South Asia in general and Bangladesh in particular.

Rickshaws are technologically evolving, such as electric rickshaws and in the use of new materials such as aluminum and other lighter materials. Simultaneously, there are a growing number of electric rickshaws particularly in the rural regions. In Dhaka, rickshaws are increasingly blocked into residential zones and kept away from the major roadways.

Rickshaws remain a decent mode of private travel in Dhaka. It is also an important source of income for the underprivileged migrant worker. It is a decent income for aspiring social climbers from the rural areas. The rickshaw has improved the lives the passenger by providing cheap and convenient transportation. They provide a good alternative to pollution-causing locomotives. As an environmentally friendly form of transportation, it is hard to beat the utility of a rickshaw in the urban context – with little to no need for fossil fuel use.

Rickshaws are part of the culture and lifestyle of Dhaka, Bangladesh and South Asia. Rickshaws and rickshaw pulling is likely to evolve with time. This is the evolutionary nature of technological change and social progress.

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DATA ANALYTICS EDUCATION: A LONGITUDINAL VIEW

Charles E. Downing, Ph.D.^{*1}, Chang Liu, DBA²

Operations Management and Information Systems Department, College of Business, Northern Illinois
University,

DeKalb, IL 60115

1 cdowning@niu.edu; 2 cliu@niu.edu

Abstract

In 2014 the Association for Information Systems (AIS) recommended that universities ramp up for the Big Data Analytics revolution. Their recommendations focused on program availability, access to and use of business analytics pedagogical resources, demand for business analytics students, types of skills taught, and employers' impressions of university graduates. This research studies students who have actually taken a Big Data Analytics course, and reports on their experiences regarding the AIS recommendations. Results from classes during 2016, 2017 and 2018 provide an updated and longitudinal view. In particular, programs available and interest in the field of Data Analytics continues to increase. Students are satisfied with program and course offerings, even if that satisfaction has not increased over the last three years. Resources for Data Analytics continue to be robust, but have decreased over time as far as their external and "open" availability. And finally, employers still seem to be expecting more from Data Analytics graduates than they are getting.

Keywords

Data Analytics, Education, Longitudinal

Introduction

Thirty years ago, if a student needed to do a report on Abe Lincoln (or anything else), she had limited sources. She could consult her family's encyclopedia (if so lucky) or go to the community or school library. Fast forward to today and our society is awash in data and information (De Mauro, Greco, and Grimaldi, 2016). Google "Abe Lincoln" and one is greeted with hundreds of thousands of results. We've moved from too little information to far too much (Wang, Kung, Wang, and Cegielski, 2017). As we click around the Internet, transact with our credit cards, and carry out day-to-day activities, information is being captured constantly (Davidi, 2013; Floyer, 2013; Huda, Haron, Ripin, Hehsan, and Yaacob, 2017; Manyika et al., 2011). The questions for business organizations are "What to do with all of this data?" and "How can organizations use the massive amounts of available data to increase their strategic position, make better decisions, target customers more precisely, etc.?" Such questions and opportunities are causing an explosion in the need for professionals who understand Data Science and Big Data Analytics, and providing an opportunity for the universities that intend to educate them (Abbasi, Sarker, & Chiang, 2016; Li et al., 2016; Liebowitz, 2017; Picciano, 2012).

In 2014, the Association for Information Systems (AIS) "Business Intelligence Congress 3" surveyed 319 professors, 614 students from ninety-six universities, and 446 practitioners regarding the emergence of Big Data Analytics. Results were analyzed to "assess academia's response to the growing market need for students with Business Intelligence (BI) and Business Analytics (BA) skill sets." They concluded that "universities throughout the world should augment existing foundational BI and BA concepts with

Big Data topics and learning objectives”. Specific findings included:

1. The number and depth of BI/BA program offerings has dramatically increased since 2010.
2. Access to and use of BI/BA pedagogical teaching resources has increased.
3. Demand for BI/BA students continues to outpace supply.
4. In a world of big data, foundational skills remain most critical.
5. Employers are not satisfied with the practical experience of university graduates.

(Wixom, et al., 2014). The AIS research was extensive, and the objective of this research is to study students who have actually taken a Big Data Analytics course since the original AIS study was published, and report on their experiences. Questions will be asked regarding access to BI/BA pedagogical resources, demand for BI/BA students, curriculum pros and cons including foundational skills, and experience with potential and actual employers. Results will be reported from classes during 2016, 2017 and 2018, providing an updated and longitudinal view.

Research Questions and Hypotheses

The research questions and hypotheses are an exploration of the student experiences in big data analytics education over multiple factors. Factors used come from the AIS “Business Intelligence Congress 3” (Wixom, et al., 2014). These questions and hypotheses (with all null hypotheses being that there is no difference) are:

- 1) What is your experience with Data Analytics program offerings?
 - a. How many Data Analytics programs could you have enrolled in?
 - b. How difficult was it to gain acceptance to your chosen Data Analytics program?
 - c. Are you satisfied with the quality of your Data Analytics program?

H1: Program offerings have increased from 2016 to 2018.

H2: Gaining acceptance to a chosen Data Analytics program has remained the same or gotten more difficult from 2016 to 2018 (more qualified candidate pool).

H3: Student satisfaction with the quality of Data Analytics programs has increased from 2016 to 2018.

- 2) What is your experience with Data Analytics course offerings?
 - a. How many Data Analytics courses could you have enrolled in?
 - b. How difficult was it to gain entrance to your chosen Data Analytics course(s)?
 - c. Are you satisfied with the quality of your Data Analytics course(s)?

H4: Course offerings have increased from 2016 to 2018.

H5: Gaining acceptance to a chosen Data Analytics course has remained the same or gotten more difficult from 2016 to 2018 (more qualified candidate pool).

H6: Student satisfaction with the quality of Data Analytics courses has increased from 2016 to 2018.

- 3) What is your experience with access to Data Analytics pedagogical resources (e.g., syllabi, assignments, examples, tutorials, and presentations)?
 - a. What is your experience with access to Data Analytics pedagogical resources within your chosen program?
 - b. What is your experience with access to Data Analytics pedagogical resources externally? Which external options did you utilize?

H7: Data Analytics pedagogical resources within a chosen program have increased from 2016 to 2018.

H8: Data Analytics pedagogical resources externally have increased from 2016 to 2018.

- 4) What is your experience with demand for Data Analytics students?
 - a. Did/do you feel that your Data Analytics skills are in high demand?
 - b. Did/do you feel that your classmates' Data Analytics skills are in high demand?

H9: Demand for Data Analytics skills has increased from 2016 to 2018.

H10: Demand for classmates' Data Analytics skills has increased from 2016 to 2018.

- 5) What is your experience with your Data Analytics curriculum?
 - a. Are you satisfied with how your program gave you a grounding in foundational skills?
 - b. Are you satisfied with how your program gave you a grounding in fundamental Data Analytics skills?
 - c. Are you satisfied with how your program gave you a grounding in new and advanced Data Analytics skills?

H11: Student satisfaction with grounding in foundational skills from Data Analytics curriculums has increased from 2016 to 2018.

H12: Student satisfaction with grounding in fundamental Data Analytics skills from Data Analytics curriculums has increased from 2016 to 2018.

H13: Student satisfaction with grounding in new and advanced Data Analytics skills from Data Analytics curriculums has increased from 2016 to 2018.

- 6) What is your experience with potential and actual employers?
 - a. Did you find that your skill sets acquired in your program matched potential and actual employers' needs?

- a. What could your program have done differently to help your experience with potential and actual employers?

H14: Student experiences with skill sets acquired in a program matching potential and actual employers' needs has increased from 2016 to 2018.

Methodology

To explore these questions and test these hypotheses, surveys were made available electronically, on a voluntary basis, to forty-one (41) students who completed a Big Data Analytics course in 2016, sixty-nine (69) students who completed a Big Data Analytics course in 2017, and forty-seven (47) students who completed a Big Data Analytics course in 2018, all at a public university. Questions were administered electronically. Students were informed that all responses are anonymous, participation was voluntary, and all collected results would be reported in aggregate only.

Data Collection, Analysis and Results

A seven-point Likert-scale was used for each closed-ended question in the survey administered to the students. Answers ranged from "Strongly Agree" (numeric value 1) to "Strongly Disagree" (numeric value 7). Thirteen students responded from the 2016 class (response rate = $13/41 = 32\%$), 11 students responded from the 2017 class (response rate = $11/69 = 16\%$), and 16 students responded from the 2018 class (response rate = $16/47 = 34\%$). The full survey instrument is available upon request. The mean responses to each question, for each year, appear in Table 1.

TABLE 1. MEAN RESPONSES TO SURVEY QUESTIONS FOR EACH YEAR.

Question	2016 Avg.	2017 Avg.	2018 Avg.
H1: How many Data Analytics educational PROGRAMS could you have enrolled in?	1.9	4.3	2.4
H2: How difficult was it to gain acceptance to your chosen Data Analytics program?	3.6	4.0	3.6
H3: How satisfied are you with the quality of your Data Analytics program?	2.0	2.5	2.1
H4: How many Data Analytics courses could you have enrolled in, in your chosen program?	2.1	3.0	2.8
H5: How difficult was it to gain entrance to your chosen Data Analytics course(s)?	3.8	3.7	3.7
H6: How satisfied are you with the quality of your Data Analytics course(s)?	1.9	2.5	2.0
H7: How satisfied are you with your experience with access to Data Analytics pedagogical resources (e.g., syllabi, assignments, examples, tutorials, and presentations) within your chosen program?	2.0	2.4	2.1
H8: How satisfied are you with your experience with access to Data Analytics pedagogical resources externally?	2.9	2.5	2.0
H9: To what degree did/do you feel that your Data Analytics skills are in high demand?	2.5	2.3	2.1

H10: To what degree did/do you feel that your CLASSMATES' Data Analytics skills are in high demand?	2.5	2.4	2.4
H11: How satisfied are you with how your Data Analytics program gave you a grounding in the foundational skills of (1) communication, (2) SQL and query, (3) basic analytics, such as descriptive statist...	2.0	1.9	2.0
H12: How satisfied are you with how your Data Analytics program gave you a grounding in fundamental Data Analytics skills?	2.0	2.1	2.1
H13: How satisfied are you with how your Data Analytics program gave you a grounding in new and advanced Data Analytics skills?	2.4	2.3	2.3
H14: To what degree did you find that your skill sets acquired in your program matched potential and actual employers' needs?	3.2	2.5	2.9
In your opinion, how many courses should be offered in a Business Analytics major or minor?	4.7	6.1	5.5

To determine whether there was movement in the means over the three years studied, ANOVA testing was done. If the F statistic was far greater than 1 (at $\alpha = .10$), then a Tukey Honest Significant Difference (HSD) test was run to determine which means were different. Both of these tests were conducted using the open source statistics and data analytics package RStudio. The script file (top) and the console results (bottom) to conduct the ANOVA and TukeyHSD tests for the first hypothesis (H1) in RStudio are shown in Figure 1. The same script was used for the remaining hypotheses, with appropriate changes made to reflect the new data being tested.

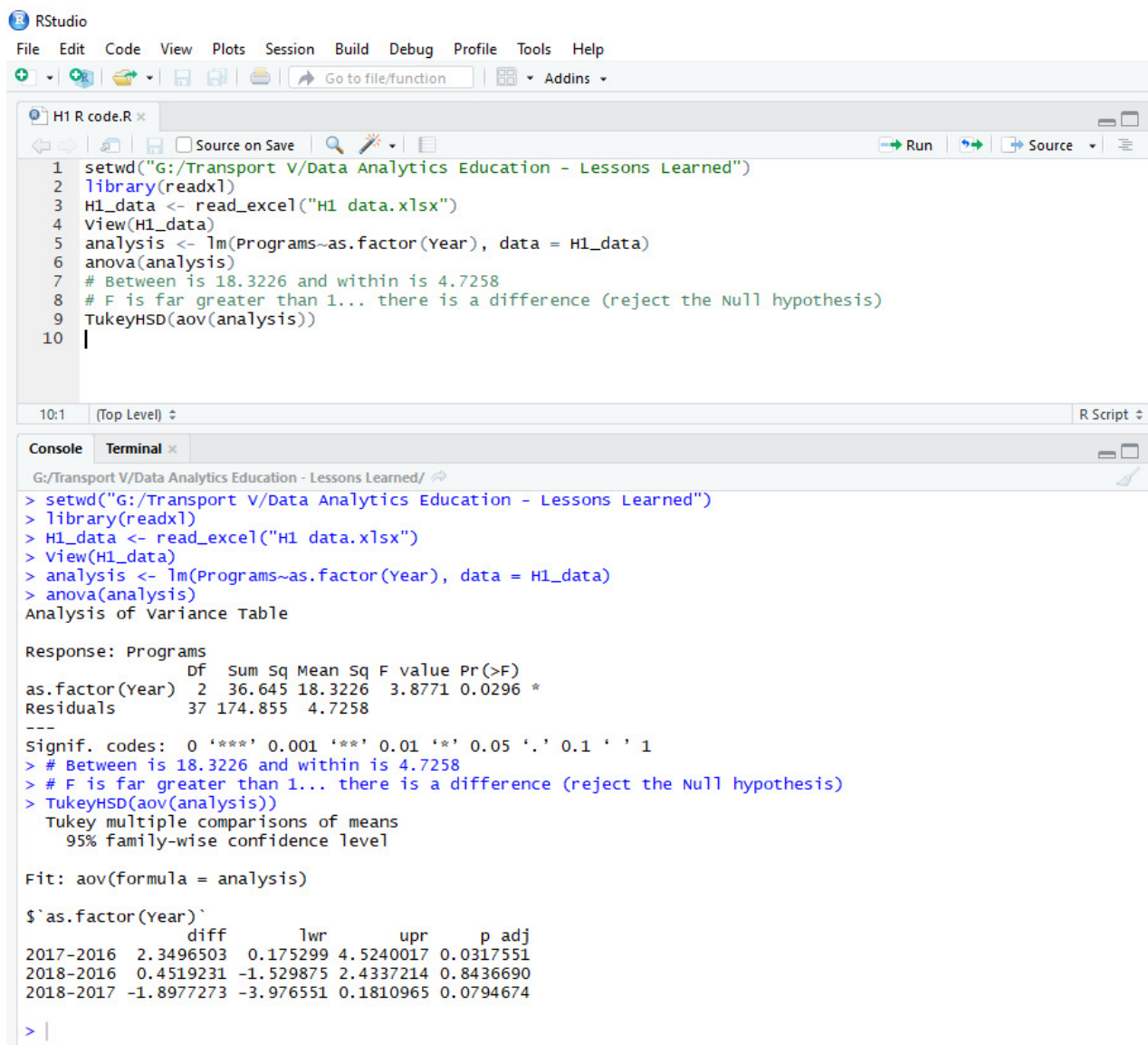


FIGURE 1. RSTUDIO ANOVA RESULTS FOR H1

Only two of the fourteen hypotheses were supported (rejecting the null), and they are shown in Table 2. The F statistics for the twelve hypothesis which did not receive support are shown in the Appendix.

TABLE 2. HYPOTHESES RECEIVING SUPPORT FROM THE DATA.

Hypothesis / Question	ANOVA F Statistic	Result	Tukey HSD p-value and result: 2016 vs. 2017	Tukey HSD p-value and result: 2017 vs. 2018	Tukey HSD p-value and result: 2016 vs. 2018
H1: How many Data Analytics educational PROGRAMS could you have enrolled in?	3.8771	At least two means are different	0.0317551 2017 mean is larger	0.0794674 2017 mean is larger	0.8436690 No difference in means
H8: How satisfied are you with your experience with access to Data Analytics pedagogical resources externally?	6.5505	At least two means are different	0.3854412 No difference in means	0.1224126 No difference in means	0.0027665 2018 mean is larger

Discussion and Conclusions

Importantly, the conclusions of the AIS Business Intelligence Congress 3 were supported. The support of H1, “Program offerings have increased from 2016 to 2018”, shows that the number and depth of BI/BA program offerings continues to increase. The means for H7, “How satisfied are you with your experience with access to Data Analytics pedagogical resources (e.g., syllabi, assignments, examples, tutorials, and presentations) within your chosen program?”, showed no difference over time, but were very low, being very similar to 2.0 “Very satisfied” for all three years. While access to and use of BI/BA pedagogical teaching resources has not increased from 2016 to 2018, it has remained very satisfying for the students who responded. As far as “Demand for BI/BA students continues to outpace supply”, the “Demand Hypotheses”, H9 and H10, did not show an increase over time, but their collective means were in the middle of 2.0 (“I feel my Data Analytics skills are in high demand”) and 3.0 (“I feel my Data Analytics skills are in somewhat high demand”), and slightly closer to 2.0. Regarding H14, “To what degree did you find that your skill sets acquired in your program matched potential and actual employers’ needs?”, the means got lower (better) over time but did not show statistical significance. Remarkably, the means for H14 for all three years exceeded the means for each of the three skills questions (H11, H12 and H13, “How satisfied are you with how your Data Analytics program gave you a grounding in foundational / fundamental / new and advanced Data Analytics skills?”). This suggests that employers are still not satisfied with the skill sets of university graduates.

The fact that the majority (12 out of 14) of the hypotheses were not supported still provides a useful result, and the individual hypothesis results are discussed below:

H1: Program offerings have increased from 2016 to 2018.

Student responses showed an explosion of program offerings from 2016 to 2017, but then tapered off in 2018 (to basically 2016 levels). This could indicate a fad-based increase in programs followed by a stabilization.

H2: Gaining acceptance to a chosen Data Analytics program has remained the same or gotten more difficult from 2016 to 2018 (more qualified candidate pool).

Student responses indicate that gaining acceptance into their chosen program did not get more or less difficult over time. This is interesting especially given the increase in program offerings from 2016 to 2017, but could indicate that the quality, non-fad-based programs remained stable, both in number and admission standards.

H3: Student satisfaction with the quality of Data Analytics programs has increased from 2016 to 2018.

Students satisfaction with Data Analytics programs have basically remained constant over time.

H4: Course offerings have increased from 2016 to 2018.

While the F statistic indicated no difference in means, the average mean response to this question definitely went up over time. A slight increase in course offerings over time, which makes sense given the increase in programs and the general increase in attention to the field.

H5: Gaining acceptance to a chosen Data Analytics course has remained the same or gotten more difficult from 2016 to 2018 (more qualified candidate pool).

Student responses showed no difference over time gaining acceptance to courses. The slight increase in course offerings may have made room for the slight increase in students applying.

H6: Student satisfaction with the quality of Data Analytics courses has increased from 2016 to 2018.

This hypothesis is not supported, with the ANOVA F statistic showing no difference between means. Again, this could be the result of a stabilization in the course offerings.

H7: Data Analytics pedagogical resources within a chosen program have increased from 2016 to 2018.

ANOVA testing shows no difference in the mean answer to this question over time. This is especially surprising give the results from H8, which shows that satisfaction with external pedagogical resources has decreased over time. These dual results may be due to the fact that proprietary resources within a program have been purchased and are stable, whereas many external resources are open source and have not been as stable.

H8: Data Analytics pedagogical resources externally have increased from 2016 to 2018.

In a surprising result, student satisfaction with pedagogical resources externally has decreased from 2016 to 2018. This is possibly due to the fact that the open source community was enthusiastically sharing resources early on, with R, Hadoop, etc. exploding and being embraced, but private interests have become more prevalent as the field and opportunities have proven to be so lucrative.

H9: Demand for Data Analytics skills has increased from 2016 to 2018.

Statistically no difference in means for this hypothesis, but a clear decrease over time from 2.5 in 2016 to 2.3 in 2017 to 2.1 in 2018 (recall that “1” here means “I feel my Data Analytics skills are in extremely high demand”). So the demand for the skills is slightly increasing, which is expected and encouraging.

H10: Demand for classmates’ Data Analytics skills has increased from 2016 to 2018.

Compared to H9 the mean responses to this question are flat over time. So the student perception is that the overall demand for skills is remaining high but not increasing.

H11: Student satisfaction with grounding in foundational skills from Data Analytics curriculums has increased from 2016 to 2018.

Satisfaction with grounding in foundational skills has remained constant over time.

H12: Student satisfaction with grounding in fundamental Data Analytics skills from Data Analytics curriculums has increased from 2016 to 2018.

Satisfaction with grounding in fundamental Data Analytics skills has remained constant over time.

H13: Student satisfaction with grounding in new and advanced Data Analytics skills from Data Analytics curriculums has increased from 2016 to 2018.

Satisfaction with grounding in new and advanced Data Analytics skills has remained constant over time, with an overall higher (worse) mean than those for foundational skills and fundamental Data Analytics skills.

H14: Student experiences with skill sets acquired in a program matching potential and actual employers' needs has increased from 2016 to 2018.

A slight overall decrease in means (recall that "1" is "I feel my Data Analytics skills matched extremely well") from 3.2 in 2016 to 2.5 in 2017 to 2.9, indicating that skills are matching up more closely to employers' needs. However, the result was not statistically significant indicating the difference is small. Additionally, the magnitude of the means for this hypothesis/question are higher than those of H11, H12 and H13, possibly indicating that there is a disconnect between what students think of their skills and what employers think.

These observations lead to the following major conclusions: Programs available and interest in the field of Data Analytics continues to increase. Students are satisfied with program and course offerings, even if that satisfaction has not increased over the last three years. Resources for Data Analytics continue to be robust, but have decreased over time as far as their external and "open" availability. And finally, employers still seem to be expecting more from Data Analytics graduates than they are getting.

While these results are important, there are limitations to this study. Even though the value of a longitudinal study over similar course circumstances with similar university conditions is valuable, the study would gain value with a larger sample size and higher response rates over multiple universities. As Data Analytics offerings expand, such a study has an increased likelihood of being conducted. Additional study is likely to reinforce the claim of the Harvard Business Review, which called Data Scientist the "Sexiest Job of the 21st Century" (Davenport & Patil, 2012)

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APPENDIX – ANOVA F STATISTICS FOR NON-SUPPORTED HYPOTHESES

Question	ANOVA F Statistic	Result	Tukey HSD p-value and result: 2016 vs. 2017	Tukey HSD p-value and result: 2017 vs. 2018	Tukey HSD p-value and result: 2016 vs. 2018
H2: How difficult was it to gain acceptance to your chosen Data Analytics program?	0.8555	No difference in means	N/A	N/A	N/A
H3: How satisfied are you with the quality of your Data Analytics program?	1.2491	No difference in means	N/A	N/A	N/A
H4: How many Data Analytics courses could you have enrolled in, in your chosen program?	1.1679	No difference in means	N/A	N/A	N/A
H5: How difficult was it to gain entrance to your chosen Data Analytics course(s)?	0.1495	No difference in means	N/A	N/A	N/A
H6: How satisfied are you with the quality of your Data Analytics course(s)?	1.2165	No difference in means	N/A	N/A	N/A
H7: How satisfied are you with your experience with access to Data Analytics pedagogical resources (e.g., syllabi, assignments, examples, tutorials, and presentations) within your chosen program?	0.6005	No difference in means	N/A	N/A	N/A
H9: To what degree did/do you feel that your	0.3328	No difference	N/A	N/A	N/A

Data Analytics skills are in high demand?		in means			
H10: To what degree did/do you feel that your CLASSMATES' Data Analytics skills are in high demand?	0.0238	No difference in means	N/A	N/A	N/A
H11: How satisfied are you with how your Data Analytics program gave you a grounding in the foundational skills of (1) communication, (2) SQL and query, (3) basic analytics, such as descriptive statist...	0.0453	No difference in means	N/A	N/A	N/A
H12: How satisfied are you with how your Data Analytics program gave you a grounding in fundamental Data Analytics skills?	0.0498	No difference in means	N/A	N/A	N/A
H13: How satisfied are you with how your Data Analytics program gave you a grounding in new and advanced Data Analytics skills?	0.0646	No difference in means	N/A	N/A	N/A
H14: To what degree did you find that your skill sets acquired in your program matched potential and actual employers' needs?	0.6364	No difference in means	N/A	N/A	N/A

THE TOURIST VALORIZATION OF THE ACCOMMODATION FACILITIES ON THE E-75 MOTORWAY IN THE REPUBLIC OF NORTH MACEDONIA FOR THE DEVELOPMENT OF TRANSIT TOURISM

Cvetanka Ristova

Faculty of tourism and business logistics, Goce Delcev University of Stip, North Macedonia

Email: cvetanka.ristova@ugd.edu.mk

Nikola Dimitrov

Faculty of tourism and business logistics, Goce Delcev University of Stip, North Macedonia

Email: nikola.dimitrov@ugd.edu.mk

Abstract

Hospitality has contributed to a huge increase in the global economy, precisely through the provision of basic accommodation and food services. The importance of hospitality today is portrayed as a leading economic contributor in world and national economies in terms of added value, capital investment, employment and tax contributions. Hence, it is important to conclude that the hospitality offer is formed exactly according to the potentials of the designated country for the development of selective types of tourism. According to this, transit tourism as a selective type of tourism, is one of the strongest economic facilities in the tourist offer of each country, as well as in the offer of the Republic of North Macedonia. The fact that a huge number of foreign tourists' transit through our country during certain periods of the year annually confirms the statement that the country has a large touristic transit function. It is assumed that with the realization of all transit corridors the Republic will become more frequent in tourist terms.

Key words: hospitality, hotel, transit tourism, tourists, North Macedonia, valorization

1. Introduction

Defining the concept of transit tourism, means a set of terms and phenomena which appear as a complex reflection of all relevant factors related to the movement of tourists through certain places, regions or countries towards their particular tourist destination, where their retention with a certain goal ranges from a few minutes to one or more nights. Accordingly, although the Republic of North Macedonia is a relatively small country, precisely its central Balkan position is the one that enables significant circulation of tourists by interlacing the roads from local, regional, national and international significance with

potential value for creating transit tourism. But for North Macedonia to have the possibility of attracting transit tourists, first, the country must have the basic base for the development of transit tourism, which is accommodation. Hence, in this paper the research is focused on the analyzing the accommodation facilities on the E-75 motorway, and since every tourist potential needs to be valorized, the accommodation facilities will be valorized in order to determine their competence for attracting transit tourists.

2. Defining transit tourism

Referencing (Angelkova Petkova & Ristova, 2015a) have stated that, transit tourism as a concept that it cannot be found in foreign tourist literature. In theory, this type of tourism was introduced for the first time in the 1960's by the professor Dr. Srdjan Markovic, who specially worked on this issue in the territory of Yugoslavia and later in the Republic of Croatia. It is composed of two terms that are opposite in meaning. Transit implies (travel from the point of departure to the place of arrival) with the possibility of a short stay, while tourism implies travel, stay and activities at the place of residence (destination) that meets tourist needs. All journeys are transited through some areas, but transit is not a travel motive. Contemporary literature that deals with the whole or partially with the issues of transit tourism considers the tourism as a special form of tourism activity (Jovičić, 1986; Stanković, 1994; Štetić, 1999a). Štetić (1999b) states that transit tourism is very widespread in practice, but there is always no clear definition of what is meant by this type of tourism, both theoretical and methodological.

Transit tourism represents the movement of tourists across places, regions or countries towards their final tourist destinations. Those places, regions or countries, where tourists pass by are indeed called transit routes. Transit routes constitute and are a vital part of the transit tourism. Without transit routes there cannot be transit tourism. Their performance and features are vital to accessing certain tourist destinations, and affect the number and directions of the tourist movements. Transit routes are a spatial whole within which it is realized the transfer of tourists to the relation domicile - tourist destination – domicile (Tuntev, 2007a; Dimitrov & Angelkova Petkova, 2014). The duration of the stay of tourists in the transition area will be longer, as long as a quality offer with expressed tourist value is present. Often, due to the significant tourist values in the surrounding area, sometimes an interaction can occur with tourist attractions, use of services and objects, so transit tourism can apply both excursion and picnic characteristics, but Tuntev (2007b) states that only an efficient transit route represents an easy and quick flow to a large number of tourists.

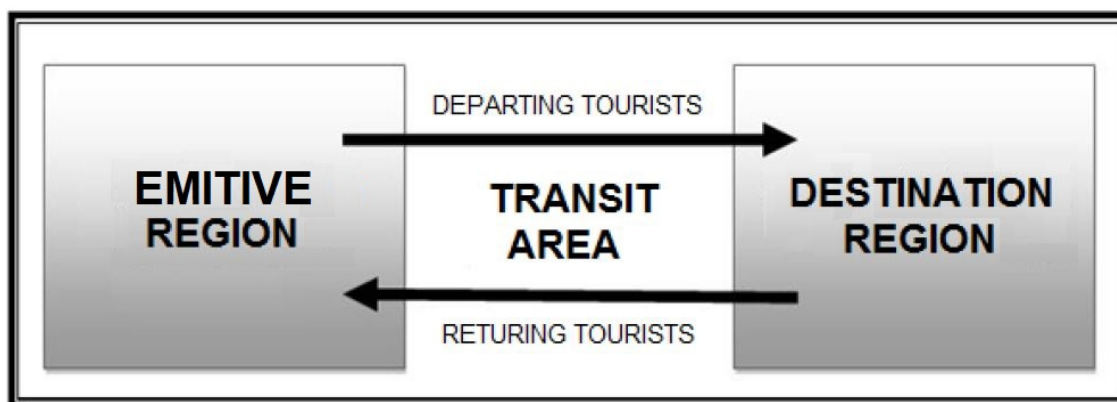


Figure 1. Position of the transit area

Source: Adaptation from Tuntev, Z (2007). Tourist destination, Faculty of tourism and hospitality, Ohrid, pp.18.

3. Who are the transit tourists?

(Kovačević & Obradović, 2006) discuss that transit tourists are subject of two concepts, a concept of a tourist who spends one day or one night in an accommodation facility and a transit concept, meaning tourist in the specified destination in which he spent an overnight stay is not a goal on his journey. Today, this type of passengers are considered as tourists because they have spent overnight stays, nevertheless if they are staying in some facilities to meet any tourism related needs.

However, in the Republic of North Macedonia, the State Statistical Office defines transit tourists as persons entering the country from a border crossing, and exiting from another, in order to extend or complete the journey to another country, and do not stay for either one night in the country (State Statistical Office, 2010). To determine transit tourists, and they represent, their needs will be analyzed. Since we know that transit tourists due to the long travel time are affectionate towards leisure and recreation, their needs can be divided into two main categories (Angelkova Petkova & Ristova, 2015b):

- *Basic needs*: access to fuel, food, water, assistance and repair of transport vehicles and a place for shorter and longer vacations. These needs are invariable and constitute the basis on which the offer for transit tourists should be built.
- *Additional needs*: depend from the habits of the target groups, and, therefore, are a variable category of additional needs. But of course the importance of this category of needs is great because without it the transit tourist can not make a stay. These include the need for road information, the need to satisfy the wishes of discovering new places and things, landscapes and people, the need for local food and gastronomy tasting.

4. Touristic – geographical position of the Republic of North Macedonia: A prerequisite for developing transit tourism

With a total area of 25,713 square kilometers and about 2 million inhabitants, the touristic - geographic position of the Republic of North Macedonia is an important component of tourism development. The touristic - geographic position of the Republic of North Macedonia allows it to be part of the countries with emphatic functional characteristics. Roads that pass through the Balkans enable North Macedonia to have even more favorable geographical position (Dimitrov & Koteski, 2015). Transitivity is primarily derived from its central position in the Balkans, and the significant travel routes that have roots from the ancient roads Via Militaris (north-south) and Via Egnatia (east-west) (Marinovski, 2006). Whereas (Angelkova Petkova & Ristova, 2015c):

- The north-south transit route is indispensable for connecting North, Central and Western Europe to Southwest Asia and Africa through the Suez Canal and South-East and South Asia. In this direction the traffic is carried out with a combination of road and maritime, but also the air traffic is not that less important.
- The east-west transit route enables the connection of eastern European and Asian countries with the Adriatic coast, through Italy and all over Western Europe. The significance of this direction is of particular importance in the territory of the Republic of North Macedonia because it is taking place in its area.

Although the Republic of North Macedonia is a relatively small country, it is in a touristic sense a great advantage because of the increased concentration and location of the natural and cultural heritage on its territory. And it is precisely its central Balkan position that enables significant circulation of tourists by interlacing the roads from local, regional, national and international significance with potential value for creating transit tourism (Ristova, 2015). The Republic of North Macedonia can be defined as a transit area that represents the spatial unit in which the transfer of tourists to the domicile - tourist destination - domicile is realized. Although the transit area in the scientific and research fields of tourism has been found to attract the least attention, it is inevitable that the Republic of North Macedonia, with its position and important road routes, can benefit very much in terms of increasing the tourism income of this type of tourism. Therefore, by possessing these key determinants, the development of transit tourism should be one of the main goals for the development of the country. Because with the very development of transit tourism and attracting transit tourists on the territory of the Republic of North Macedonia and their motivation for stopping and staying, a more intensive development will be contributed to the other types of tourism in the Republic.

5. E-75 motorway: The route of extending in the Republic of North Macedonia

The E-75 motorway, known as “Friendship” from 2018, formerly known as the “Alexander the Great” motorway since 2008, extends in the north-south direction from the border with Republic of Serbia at the border crossing Tabanovce to the border with Republic of Greece at the border crossing Bogorodica near Gevgelija. It is part of the Pan-European international corridor X, the international route E-75, which is part of the network of international European roads (E-roads), a series of major roads across Europe. E-75 starts in Varde, Norway in the Barents Sea, continues south through Finland, Poland, the Czech Republic,

Slovakia, Hungary, Serbia, North Macedonia, and to Sitia on the island of Crete in Greece. In the second half of the XX century, this motorway was part of the Yugoslav Motorway “Brotherhood and Unity”, which crossed the four Yugoslav republics, linking the northern and southernmost boundaries. However, the conditions and infrastructure of the motorway were not fully at the level of today's international motorway standards, since only the section from Kumanovo to Veles was with two separated traffic lines.

After the independence of North Macedonia in 1991, this stage is gradually starting to be built and improved, with the construction of separate traffic lanes in two directions. The construction and reconstruction of the motorway were mostly carried out with funds from North Macedonia and financial assistance from the EU funds. Thus, in the period from the late 1990s to 2000, the sections to Gradsko and Smokvica – Gevgelija were completed, then in the period from 2001 to 2002, the section to Negotino, later in the period until 2004, the section to Demir Kapija was completed, and in 2011, the 7,4 km long section Kumanovo - Tabanovce was completed, which was officially put into operation on the Independence Day of the Republic of North Macedonia, September 8th. With the completion and the last construction of 28,2 km from the section Smokvica - Demir Kapija in May 2018, the Republic of North Macedonia completely completed the entire motorway construction according to all international standards with two separate traffic lines. Thus, with the completed construction, the length of the E-75 motorway in the north-south direction is 172.3 km, while in the south-north direction it is 168.3 km. Undoubtedly, improving the transport connection will significantly help support the growing economy of tourism in the Republic of North Macedonia, stimulating more tourists and strengthening the transit tourism (Temjanovski, 2017). Therefore, the transport connection is also crucial for accommodation facilities being able to attract transit tourists and benefit from their consumption (Ristova & Angelkova Petkova, 2015). In order to evaluate the E-75 motorway for tourist purposes, i.e. developing transit tourism, the authors will recall to the very first aspect that is attracting transit tourists, which is accommodation. Hence, on the previous division of transit tourists' needs, discussed above, the valuation of the E-75 motorway will be analyzed through the offer of the accommodation facilities.

6. Analysis of the accommodation facilities along the E-75 motorway

When developing accommodation facilities in transit destination, it is important whether the destination is accessible through one or more routes, and which means of transport provide access. Regarding the fact that besides the Republic of North Macedonia an international motorway pass, the E-75 motorway is a key factor for developing the accommodation facilities in the country. Thus, in Table 1, all accommodation facilities located along the E-75 motorway will be analyzed.

Table 1. Analysis of the accommodation facilities on the E-75 motorway

No.	Type	Name of accommodation	Location	Location / Accessibility on E-75 motorway
1.	Motel	Motel Ibro Komerc	village	relation: south – north (right side)

			Kosturnik,Kumanovo	
2.	Hotel	Harmony Hotel ** superior	village Dolno	relation: north – south (left side)
			Konjare,Kumanovo	relation: south – north (right side)
3.	Villa	Villa Just Outside of Skopje	Agino	relation: north – south (right side)
			village,Kumanovo	
4.	Hotel	Hotel Belvedere **** superior	Ilinden	relation: north – south (right side)
	Camping		Municipality,Skopje	relation: south – north (left side)
5.	Hotel	Hotel Mirror ****	Petrovec	relation: north – south (right side)
			Municipality,Skopje	relation: south – north (left side)
6.	Hotel	Hotel Spa Katlanovo ****	Katlanovo,Petrovec	relation: north – south (left side)
			Municipality,Skopje	relation: south – north (right side)
7.	Hotel	Hotel Romantik *** superior	Veles Municipality	relation: north – south (right side)
				relation: south – north (left side)
8.	Hotel	Hotel Brod Panini ***	Veles Municipality	relation: north – south (right side)
				relation: south – north (left side)
9.	Motel	Hotel Montenegro Rivijera ***	Veles Municipality	relation: north – south (right side)
				relation: south – north (left side)
10.	Hotel Spa	Gardenia Hotel & Spa *****	Veles Municipality	relation: north – south (right side)
				релација: југ – север (лева страна)
11.	Motel	Motel Macedonia ****	Veles Municipality	relation: north – south (right side)
				relation: south – north (left side)
12.	Hotel	Hotel Pamela ***	Negotino Municipality	relation: north – south (right side)
				relation: south – north (left side)
13.	Hotel	Hotel Park *	Negotino Municipality	relation: north – south (right side)
				relation: south – north (left side)
14.	Hotel	Hotel Moderna Spa ****	Demir Kapija	relation: north – south (right side)
			Municipality	relation: south – north (left side)
15.	Hotel	Hotel Popova Kula ***	Demir Kapija	relation: north – south (right side)
			Municipality	relation: south – north (left side)
16.	Apartments	Valentina Apartments	village	relation: north – south (right side)
			Negorci,Gevgelija	relation: south – north (left side)
17.	Hotel	Hotel Bozur ***	village	relation: north – south (right side)
		(complex Negorski Spa)	Negorci,Gevgelija	relation: south – north (left side)
18.	Hotel	Hotel Ilinden **	village	relation: north – south (right side)
		(complex Negorski Spa)	Negorci,Gevgelija	релација: југ – север (лева страна)
19.	Hotel	Hotel Jasen **	village	relation: north – south (right side)
		(complex Negorski Spa)	Negorci,Gevgelija	relation: south – north (left side)
20.	Guest House	Village House	village	relation: north – south (right side)
			Mrzenci,Gevgelija	relation: south – north (left side)

21.	Hotel	Hotel Nar ****	Gevgelija Municipality	relation: north – south (right side) relation: south – north (left side)
22.	Motel	Motel Vardar *	Gevgelija Municipality	relation: north – south (right side) relation: south – north (left side)
23.	Motel	Casino Motel Senator ***	Gevgelija Municipality	relation: north – south (right side) relation: south – north (left side)
24.	Hotel	Hotel Ramada Plaza ***** superior	village Bogorodica, Gevgelija	relation: north – south (left side) relation: south – north (right side)
25.	Hotel	Casino Flamingo Hotel *****	village Bogorodica, Gevgelija	relation: north – south (right side) relation: south – north (left side)

Source: Ristova Cvetanka's research

On the E-75 motorway in the Republic of North Macedonia there are 25 accommodation facilities, 17 of which are hotels, 5 are motels, 1 villa, 1 apartment and 1 guest house. From all the accommodation facilities in the Republic of North Macedonia the categorization is only applied to hotels, motels and boarding houses. Accommodation facilities analyzed according to their location are situated in the 8 municipalities where the E-75 passes and are shown in Table 2.

Table 2. Analysis of the accommodation facilities of the E-75 motorway in municipalities

Categorization	Hotel	Motel	Villa	Apartments	Guest house	Total
City						
Kumanovo	1	1	1			3
Ilinden	1					1
Petrovec	2					2
Veles	3	2				5
Gradsko						0
Negotino	2					2
Demir Kapija	2					2
Gevgelija	6	2		1	1	10

Source: Ristova Cvetanka's research

Table 3. Analysis of the categorized hotel facilities of the E-75 motorway in municipalities

Type of accommodation	5* superior	5*	4* superior	4*	3* superior	3*	2* superior	2*	1*	Total
City										
Kumanovo							1			1
Ilinden			1							1
Petrovec				2						2
Veles		1			1	1				3
Gradsko										0
Negotino						1			1	2
Demir Kapija				1		1				2
Gevgelija	1	1		1		2		2		7

Source: Ristova Cvetanka's research

Most accommodation facilities along the E-75 motorway are in Gevgelija (10) ,and the least accommodation facilities are in Ilinden (1). No accommodation capacity was recorded in Gradsko.

According to Table 3, on the territory of the Republic of North Macedonia there are 17 categorized hotel facilities, of which 1 hotel categorized with 5* superior, 2 hotels with 5*, 1 hotel with 4* superior, 4 hotels with 4*, 1 hotel with 3* superior, 3 hotels with 3* superior, 1 hotel with 2* superior, 2 hotels with 2* and 1 hotel with 1*. Most of the categorized hotels located on the E-75 motorway are hotels with 3* (5), then hotels with 4* (4). Hotel with 5* superior are least located on the E-75 motorway. From all of the municipalities, Gevgelija (7) has the most categorized hotels, while Kumanovo (1) and Ilinden (1) have the least categorized hotels. No accommodation capacity was recorded in Gradsko.

7. Tourist valorization of the accommodation facilities on the E-75 motorway

Tourist valorization is a detailed assessment of natural and created values that are significant for the tourist development of one destination, region and the whole country. Over time tourist valorization is pushed as one of the most significant factors of developed and undeveloped tourist destinations (places, regions and states) meaning one of the most complex issues of theoretical and methodological scientific basis of tourism, but also the practice of development of this activity (Stefanovic, 2004). Valorization aims to emphasize, or to detect the use values of the potentials (Čomic & Pjevač, 1997). The essence of tourist valorization is to determine the current existing state of resources where the estimation allows setting and determining the actual opportunities for tourism development, and then assess the merits of some suggestions for a certain protection of resources or the whole space and realization of possible solutions for protection, assessment of investment activities and the possibility of tourist turnover.

With the analysis of the accommodation facilities on the E-75 motorway from the aspect of developing transit tourism, a valorization will be made which will aim to determine the current state of accommodation

facilities of the E-75 motorway and with that assessment later, the authors will set and determine the real role of accommodation facilities for the development of transit tourism in the Republic of North Macedonia.

For the purposes of this paper, valorization is carried out according to the Hilary du Cros model (Du Cros, 2001) which is quite complex due to the large number of indicators for valorization. Valorization will be supplemented with certain indicators in order to get more necessary information about the accommodation facilities.

The tourist valorization of the accommodation facilities will be analyzed through:

- I. Tourist-geographical position,
- II. Infrastructure,
- III. Accessibility,
- IV. Close to tourist attractions,
- V. Accommodation capacity,
- VI. Offer of local and traditional food,
- VII. Proximity to additional needs (gas stations, auto-services and other)
- VIII. Speaking a foreign language.

Identification and evaluation of accommodation facilities will be done using a scale ranging from 1 to 5:

- Grade 1 (unsatisfactory quality) is not for tourist presentation,
- Grade 2 (satisfactory quality) represents the local tourist importance,
- Grade 3 (good quality) shows the importance of transit tourism,
- Grade 4 (very good quality) for wider regional (national) importance,
- Grade 5 (excellent quality) international tourist significance.

Tourist valorization of accommodation facilities is shown in Table 4.

Table 4. Valorization of the accommodation capacities on the E-75 motorway

No.	Name of the accommodation	Location	I	II	III	IV	V	VI	VII	VIII	Touristic value
1.	Motel Ibro Komerc	village Kosturnik,Kumanovo	5	5	5	4	3	5	5	5	4,6
2.	Harmony Hotel ** superior	village Dolno Konjare,Kumanovo	4	5	5	4	2	5	5	5	4,3
3.	Villa Just Outside of Skopje	Agino village,Kumanovo	5	5	5	5	1	1	5	3	3,7
4.	Hotel Belvedere **** superior	Ilinden Municipality,Skopje	3	5	5	2	3	5	1	5	3,6
5.	Hotel Mirror ****	Petrovec Municipality,Skopje	3	5	4	3	2	5	5	5	4
6.	Hotel Spa Katlanovo ****	Katlanovo,Petrovec	3	5	5	5	5	5	5	5	4,7

			Municipality,Skopje									
7.	Hotel Romantik *** superior	Veles Municipality	4	5	5	3	3	5	1	5	3,8	
8.	Hotel Brod Panini ***	Veles Municipality	4	5	5	5	2	5	1	5	4	
9.	Hotel Montenegro Rivijera ***	Veles Municipality	4	5	5	3	3	5	3	5	4,1	
10.	Gardenia Hotel & Spa *****	Veles Municipality	4	5	5	3	3	5	3	5	4,1	
11.	Motel Macedonia *****	Veles Municipality	5	5	5	3	3	5	5	5	4,5	
12.	Hotel Pamela ***	Negotino Municipality	4	5	5	5	3	5	5	5	4,6	
13.	Hotel Park *	Negotino Municipality	5	5	5	5	5	5	5	3	4,7	
14.	Hotel Moderna Spa *****	Demir Kapija Municipality	4	5	5	4	4	5	3	5	4,3	
15.	Hotel Popova Kula ***	Demir Kapija Municipality	3	3	5	4	4	5	3	5	4	
16.	Valentina Apartments	village Negorci,Gevgelija	3	4	5	3	3	1	5	5	3,6	
17.	Hotel Bozur *** (complex Negorski Spa)	village Negorci,Gevgelija	3	4	5	3	3	5	5	5	4,1	
18.	Hotel Ilinden ** (complex Negorski Spa)	village Negorci,Gevgelija	3	4	5	3	4	5	5	4	4,1	
19.	Hotel Jasen ** (complex Negorski Spa)	village Negorci,Gevgelija	3	4	5	3	5	5	5	4	4,2	
20.	Village House	village Mrzenci,Gevgelija	3	4	5	2	1	1	5	5	3,2	
21.	Hotel Nar *****	Gevgelija Municipality	3	4	5	5	3	5	5	5	4,3	
22.	Motel Vardar *	Gevgelija Municipality	4	4	5	5	3	5	5	5	4,5	
23.	Casino Motel Senator ***	Gevgelija Municipality	5	5	5	5	3	5	5	5	4,7	
24.	Hotel Ramada Plaza ***** superior	village Bogorodica,Gevgelija	5	5	5	5	5	5	5	5	5	
25.	Casino Flamingo Hotel *****	village Bogorodica,Gevgelija	5	5	5	5	5	5	5	5	5	

The tourist valorization of the E-75 motorway from the aspect determining the development of transit tourism, has an average tourist value of 4,2 which represents an excellent tourist value for prerequisites for development of transit tourism on the territory of the Republic of North Macedonia.

8. Conclusion

The Republic of North Macedonia is a relatively small country, in tourist terms, it is of great advantage because of the increased concentration and location of the natural and cultural heritage on its territory. And its central Balkan position allows for significant circulation of tourists with international importance on the E-75 motorway, which leads to a potential value for creating transit tourism. In this paper, the E-75 motorway was analyzed from the aspect of attracting transit tourists, through the accommodation facilities offer. With the valorization of accommodation facilities, we conclude that the Republic of North Macedonia can meet the needs of transit tourists, benefit from their consumption and positively influence the increase

in the touristic income of the country.

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EFFECTS OF TRANSFORMATIONAL LEADERSHIP AND PERCEIVED FAIRNESS ON JOB SATISFACTION: EVIDENCE FROM MIDDLE EAST

1) Mr. Rafeed Faiz Ali Abozaid (Corresponding Author)

Academic Affiliation and Address: PhD Scholar, School of Management, Huazhong University of Science and Technology (HUST), Wuhan, P.R. China.

Email: rafeed2020@hotmail.com or rafeed@hust.edu.cn.

2) Mr. Rafiq Mansoor (Corresponding Author)

Academic Affiliation and Address: PhD Scholar, School of Management, Huazhong University of Science and Technology (HUST), Wuhan, P.R. China.

Email: rfqmansoor@gmail.com or rfqmansoor@hust.edu.cn.

3) Mr. Zubair Nawaz

Academic Affiliation and Address: PhD Scholar, School of Management, Huazhong University of Science and Technology, (HUST) Wuhan, P.R. China.

Email: zubair.hust@outlook.com

4) Mr. Rashad Faiz Ali Abozaid

Academic Affiliation and Address: Master Scholar, School of Management, Al Andalus University for Science and Technology, Sana'a, Yemen.

Email: 2401899923@qq.com

5) Mr. Aqeel Mansoor

Academic Affiliation and Address: Department of political, University of Malakand, Pakistan

Email: qlmnsr@gmail.com.

6) Mr. Mohammed Hafedh

Academic Affiliation and Address: PhD Scholar, Economics and Business Administration, Chongqing University, Chongqing in P.R. China.

Email: 1049830801@qq.com

Abstract

Portfolio managers gained less fascination as role of transformational leadership in organization. This

research explore transformational leadership effect on job satisfaction with mediating role of perceived fairness and moderating role of intrinsic motivation in context of Middle East Markets. This model has proposed from integration of prior research models in order to ensure better transparency, accessibility, credibility, and accountability by integrating P-to-P framework. A questionnaire survey with sample size of 120 respondents was collected from small and medium sized companies operating in different field of business in Middle East. Results support the effect of transformational leadership on job satisfaction through perceived fairness and moderating role of intrinsic motivation. The study confirm significance of managers in enhancing employees job satisfaction and identify necessity of wise management in order to enhance the need of such factor which leads towards transformational leaders to boost the process of influence and productivity.

Key words:

Transformational Leadership, Perceived Fairness, Intrinsic Motivation, Job Satisfaction

1. Introduction

Leadership has become the world most controversial issue in recent year especially and specially in Arabic region. Most researchers investigate the role of leadership in different aspect of life in different region of world especially in western countries (Ambrose & Cropanzano, 2003; Hausknecht, Sturman, & Roberson, 2011). To determine and test theories on other nations is a vacant place which contributes to the advancement and prosperity of others nations. Leadership plays a vital role in any company. Regardless to any type of organization, leadership can act as vital role for establishing a high performance team for present and future challenges. It well recognize that leader effectiveness has censoriously depends on her competency to motivate supporters towards on the common goal, apparition, idea and mission (Shamir, Zakay, Breinin, & Popper, 1998). In Organizations all over world are deeply concerned with understanding, searching and developing leadership. Mintzberg (2006) explain that true leader engaging follower with their deliberations and modesty due to they contain themselves for actually doing not for individual achievements. At work place, leader behaviour style work as a noticeable appropriate indication which persuade situational elevation or anticipation focus in employees of the organizations (Epitropaki, Kark, Mainemelis, & Lord, 2017; Kark & Van Dijk, 2007). Recently, emphasis on traditional leadership has moved to new types of leadership models, with prominence on transformational leadership (Bass, 1985), which has been characterized as visionary. Mostly research on transformational leadership based on theory of Bass (1985) focuses on individual performance and effectiveness in comparing of transformational leadership. From last two eras, transformational leadership have get researcher attention and researchers show that it has related with upper levels of organizational consequences and individuals outcomes (G. Wang, Oh, Courtright, & Colbert, 2011; H. Wang, Law, Hackett, Wang, & Chen, 2005).

Bass, Waldman, Avolio, and Bebb (1987) call transformational leadership as cornerstone of any company success, through which company can achieve their objectives and maintain their position in market. Transformational leadership has critical effects on the performance and track of company because they

facilitate and encourage the followers and employees ability for independently creative thinking (Dust, Resick, & Mawritz, 2014; Joo & Lim, 2013; Pai & Krishnan, 2015), and also directly encouraged employees and followers proactive behaviour development by stimulating them individual and intellectually (Den Hartog & Belschak, 2012; Schmitt, Den Hartog, & Belschak, 2016). In organization employees consider transformational leader as role model for internal and external activities. In fact, we can say that transformational leadership has main stream for employees as well as for organizations.

Connection between leadership and followers depended on different factors. Extremely very few consideration are done to better explain this relation specially specifying the main factors of employees and organization like perceived fairness, intrinsic motivation and job satisfaction, which have three dimensions high impact scale defining of leaders, employees and organization. Perceived fairness performed important role between transformational leadership and job satisfaction, as most employees perceived that good transformational leadership would lead to higher level satisfaction of job. Collins, Mossholder, and Taylor (2012) initiate the act of employees with greater turnover targets was unpretentious by supervisors' fairness procedure, while recital of those with inferior turnover targets was influenced absolutely. The study Wenzel, Krause, and Vogel (2017) resulted that fairness minimize perception of controlling and fostering employee's intrinsic motivation and due to maximum value of neuroticism in employee's lower positive effect. Landy and Conte (2004) emphasized motivation importance and says that if motivation has null then even talented employee resulted not well, likewise if motivation has high in any employee they achieved their goal even they have certain understanding gape. Among different kinds of motivation, the most influencing on employee attitude is intrinsic motivation (Deci & Ryan, 2002). Luo (1999) argued that a positive and significant effect has occurring on job satisfaction of employees due to intrinsic motivation like feelings of execution and self-fulfillment. However, transformational leadership relationship with job satisfaction has revealed deeply and clearly (Judge & Bono, 2000; Krishnan, 2012), still potential moderating consequence of motivation has remain unconvincing. Theoretical model has shown in Fig. 1. The current study will be further enhanced previous studies specially targeting middle-east area for research to facilitate companies to know importance of transformational leadership with job satisfaction and mediating and moderating effect of perceived fairness in organization and intrinsic motivation.

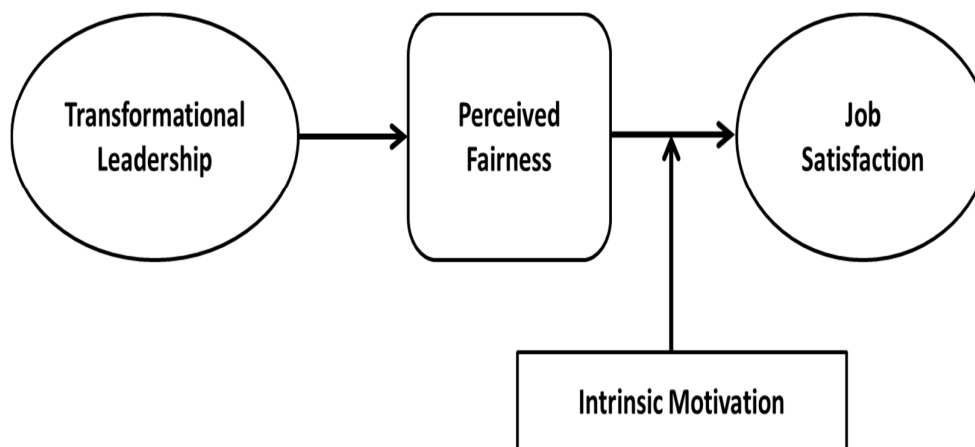


Fig. 1 Theoretical Model

2. Literature Review

2.1. Transformational Leadership

Transformational leadership defines by Judge and Klinger (2000) as type of leadership in which leader encourage followers and boots up their different levels like motivations, attitude, morals, perceptions, and association according to organization rules and regulations. Transformational leadership gives an influential vision for organization to get fortunate enhancement with necessities of alteration in culture value (Saleem, 2015). The transformational leadership dynamics consists of well and sturdy identification with leader, a joint and share vision of near future, and having ability beyond of self-interest and rewards for fulfillment. Transformational leadership plays basic role in individual and team level in proactive work place behaviour (Den Hartog & Belschak, 2012; Schmitt et al., 2016; Strauss, Griffin, & Rafferty, 2009).

Recently transformational leadership has discussed widely in different aspect from different researcher. The research focuses on transformation and transactional leadership and reveal that transformational influences is positively while transactional leadership is negatively impact on job satisfaction (Saleem, 2015). The Boamah, Laschinger, Wong, and Clarke (2018) resulted that as managers a transformational leaders behaviour is useful way of forming better workplace conditions which can be creating a better and safety ways for employees. Its goes high with assorted consequence of leader like organizational behaviors, achievement, and job satisfaction. The study of Hetland, Hetland, Bakker, and Demerouti (2018) analyzed that transformational leadership behaviour have positively influences followers structural and social resources and increases it's day level working. Transformational leaders provide the potential for healthy work, particularly within a team-based context, by increasing a greater sense of job satisfaction and mastery in perceived control, employee role orientations and greater trust in management. In turn, these positive psychological processes and mechanisms lead towards healthy outcomes such higher levels of psychological well-being. We will be further discussing impact of transformational leadership on employees in organizations and their effect on job satisfaction with the mediating role of perceived fairness and moderating role of intrinsic motivation.

2.2. Intrinsic Motivation

Motivation is an attribute which drive us towards some task to accomplish. Mulwa (2009) concluded that for productivity, sustainability, and profitability, motivation is one of the main sources in any organization. Intrinsic motivation is type of motivation which vivacious due to individuals interest, contentment, or gratification. Intrinsic motivation sustain due to spontaneous satisfactions intrinsic in precious volitional action. Its habitually engage behaviors like play, exploring new thing, or any challenge for external rewards. Hagedoorn (2003) determined that work interest, appreciation, development, and accomplishment are example of intrinsic factor. In cognitive evaluation and self-determination theory define intrinsic motivation as the inherent behavior of any individual due to which they pursue or

performed any challenge or activity with their own interest and capacity (Ryan & Deci, 2000). Grant (2008) concluded in their study employees executed well and longer times their work with high intrinsic motivation. The study De Vito, Brown, Bannister, Cianci, and Mujtaba (2018) resulted that when workers have pleased to their managers; their motivation drives high which augmenting working environment with improved compensation and advance opportunities. Cerasoli, Nicklin, and Ford (2014) specify that intrinsic motivation has robust impact on performance. The study have consider to know further according to following literature review about intrinsic motivation, impact in difference aspect with leadership on job satisfaction with perceived fairness in middle east organizations.

2.3. Job Satisfaction

In psychological point of view the job satisfaction views multi-dimensional result on one job and such consequences have hold exciting, cognitive and behavioral factor (Judge & Klinger, 2008). According to Wicker and Wicker (2011) job satisfaction has inner fulfillment and pride sense which have achieved by accomplishment of specific job. Research concluded that employee's feedback, clarity, and participation of goals have associated positively with job satisfaction, with predictor of efficiency and performance (Judge, Thoresen, Bono, & Patton, 2001; Patterson, Warr, & West, 2004; Whitman, Van Rooy, & Viswesvaran, 2010).

On different aspect the job satisfaction have studies in the recent research like Fernandez and Moldogaziev (2015) concluded in their study that self-determination positively affected the job satisfaction and empowerment performs which undermine independence have no significant consequence on job satisfaction. According to Kampkötter (2017) have resulted that performance related pay is connected with higher job satisfaction level. Mohammad, Al-Zeaud, and Batayneh (2011) concluded that there are various factors include like achievement, salaries, recognition, and self-independence but significant which influences job satisfaction further is leadership style because its organize employees and have direct social and unsocial interaction with employees in organization. Vincent (1960) divided the employer need in two main factors, hygiene and motivation. He further explains that certain state of affairs like supervision, interpersonal relations, working condition, salary and different other benefit satisfies hygiene factors of employee. Most of scholars focus on single clusters of factors which affecting it, we will be study in most broad mining with the relation with leadership affection on job satisfaction due to more importance in organization as well as in researcher due to its benefiter.

2.4. Perceived Fairness

Organizational fairness has been study with different connection like distribution process, relative wages, reference wages and pay structure and other related factors like attitude and behaviour with satisfaction, organization citizenship, and trust (Ambrose & Schminke, 2009; Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Colquitt et al., 2013). Social exchange theory (Blau, 1964; Cropanzano & Mitchell, 2005) argued that by fair treatment of intrinsic values demonstrate positive employee's discretionary behaviour. In recent studies scholars have developed connection with experimental consequence stands on proposal of fairness as reciprocity. Investigating non-monetary side of the job, they conclude that there are positive influences of procedural fairness on employee spirits and effort. According to Patel, Budhwar, and Varma (2012) the fairness of any type in the organization has

significant perceptions and influences employees behaviour and attitude in the work place.

The basic dimensions of organizational fairness have pay level, pay rule and structure, pay administration (promotion), rule administration, work place, and distribution task fairness with which administrator assign routine and non-routine responsibilities. Employees mostly evaluate inter organizational pay and also generally organizations have their standard rules for any stage of work (Dittrich & Carrell, 1976). The second factor pay structure appraises the perceived fairness of one worker pay to their co-worker and fairness of regulations for getting promotions with level of pay increments. The fairness in reward system administration rules appears an exacting salient feature of organizational fairness. As work rules and the way of its enforcement influence worker morale administration or behavior rules fairness are significant aspects of the perceived in general fairness of usually work condition. Leete (2000) review role of fairness among different kinds of organizations and indicate that wages has main relevant proxy among employees for perceived fairness. The current study has considered it, to know further the mediating role of it in Middle East organization.

3. Hypothesis Description

3.1. Transformational Leadership, Job Satisfaction and Perceived Fairness

Job satisfaction is the level of contentment of individuals in his job in the organization. It also used as rank of employee between their qualification and performance in the organization. Among other leadership styles, current researcher recommend that the most influences one is transformational leadership which have a high impact on job satisfaction of the employees (Cicero & Pierro, 2007; Cogaltay, Yalcin, & Karadag, 2016; Ghanbari & Eskandari, 2014). Mohammad et al. (2011) found four main dimensions of transformational leadership individual consideration, intellectual stimulation, and inspirational motivation and idealized influence which is positively related to job satisfaction. While increment in job satisfaction influences the performance of employee in the organizations, which indirectly assure the fundamental role of transformational leadership. Job satisfaction goes beyond if leader have well informed from basic need of employees. Currently study resulted that perceived transformational leadership has strongly correlated to job satisfaction if employee have more conscientious, and employee sense extra psychologically empowered by perceiving their leader as transformational, which impact positive and increase the employee job satisfaction level (Aydogmus, Camgoz, Ergeneli, & Ekmekci, 2018). In short, transformational leadership imbues organizational tasks and jobs with meaning ultimately increasing the staff's satisfaction, which in turn can have a determinant effect in the successful performance of the organization.

Employee's perception of fairness defines the organizational justice and it is still the main factor of organizational behaviour (Greenberg, 2011). With fairness, leaders and supervisor promote positive rational norms like honesty, integrity, and civility, through which employees get encouragement and reciprocate with positive work behaviour which have benefit for both supervisor and organizations

(Blader & Tyler, 2013; Korsgaard, Meglino, Lester, & Jeong, 2010). Collins et al. (2012) initiate that the act of employees with greater turnover targets was unpretentious by supervisors' fairness procedure, while the recital of those with inferior turnover targets was influenced absolutely. From previous research it's proved that transformational leadership has main stream of the organization success. A current study will examine further transformational leadership and organizational justice with other psychological factor like work satisfaction, well-being from work and fairness in work environment. Based on following studies we assumed that a positive effect on perception of employees, which has also conceptualized in this article as including both tendency of employees to perceive the organization well.

Equity theory Adams (1965) on job satisfaction state that the way of treatment of employees influences their behavior as well as attitude towards work. Kannan (2005) explaining the equity theory and state that the individuals expected justice and equity during working from administration. Kim, Lin, and Leung (2015) have resulted that changes in fairness have significantly described the alteration in job satisfaction, and resulted that positive modifications in fairness insights have more strongly affective organizational commitment with affirmative job satisfaction. Hausknecht et al. (2011) explain that changes in fairness verify the other more changes in job satisfaction, and turnover intentions. Organizations fairness studies have concluded that it have a significantly impact on attitude of employees towards their job satisfaction as well as organizations welfare (Cohen-Charash & Spector, 2001; Colquitt et al., 2001). The current study has investigated the importance of fairness relation with job satisfaction in the Middle East organization. Based on the above literature, we have concluded the following hypothesis.

H1: Transformational leadership affects positively employee's job satisfaction.

H2. Transformational leadership affects positively perceived fairness

H3. Perceived fairness affect positively employee's job satisfaction

3.2. Perceived Fairness as Mediating between Transformational Leadership and Job Satisfaction

The distribution of assets in employees required perceived fairness among them through procedural honest way. Liang and Chang (2014) state that perceived fairness has affected and give good result regarding to employees through repeated instances of fairness for employees welfare in resource distribution decisions. Organizational justice research signifies that its quality has measure by treatment received by individual from their organizational leadership. As with intensification in organizational perceived fairness employees have feel happy to their jobs. They also think with encouraging that they are well respected and valuable for their organization (Blader & Tyler, 2013; Colquitt et al., 2001). Ambrose and Schminke (2009) resulted that when leadership of organization or their representatives treat workers with fair, the employees do positive role with malleable work behaviour with satisfaction from their job. It's also responsibility of supervisor to preserve a fair rapidity of work activities. The organizational

fairness is also depended on the fairness of distributing task with which manager assign routine and non-routine responsibilities as their determination to subordinates persuades their insight of fairness. Leete (2000) has evaluated the role of fairness by taking wage scattering as the appropriate proxy for distributive fairness in different types of organization. The above evidence show that perceived fairness is a strong influence between transformational leadership and job satisfaction, and there relation is high if there are fairness otherwise its low and weak. From this we hypothesize that:

H4. Perceived fairness as mediating between transformational leadership and job satisfaction

3.3. Intrinsic Motivation as Moderating Factor between Perceived Fairness and Job Satisfaction

Intrinsic motivation shows a positive correlation with job satisfaction (Linz, 2003). According to Devloo, Anseel, De Beuckelaer, and Salanova (2015) intrinsic motivation role as supportive mediator between satisfaction of basic need and innovative work behaviour. Ahmad, Ahmad, and Shah (2010) identified that there is a significant relationship between intrinsic motivation and job satisfaction, focus on pay fairness regarding to job satisfaction and goal clarity for intrinsic motivation to provide further insights in research as intrinsic motivation is positively associated and changed due to pay association. Perceived fairness and intrinsic motivation strength can be measured by one's inevitability about a specified task act. Little previous have touch this topic of self-perception of employee to complete the mandatory task and their actual outcomes. Intrinsic motivation is defined as to do some task which is inherently in person and also give a joy to the worker (Ryan & Deci, 2000). According to Broussard and Garrison (2004) the relation of perceived fairness and job fairness is tougher when there is a high intrinsic motivation while if the intrinsic motivation is low somewhere it's also affects faintly both of perceived fairness and job satisfaction relation. Due to above statement we assume the following hypothesis:

H5. Intrinsic motivation as a moderating between perceived fairness and job satisfaction

4. Research Method

A useful way to design a research study is as a Two-Stage or Hybrid design. With this approach, both exploratory and conclusive approaches are blended in a suitable combination on the basis of the research situation is general (Boyd, 1985). In the proposed study, not only single approach was utilized but also a mixture of both quantitative (conclusive) and qualitative (exploratory) were used. Both qualitative and quantitative data were used to make the analysis and interpretation. So the initial part was based on quantitative qualitative analysis supported by qualitative data President.

Table I distribution of questioner among the sample item

Number of samples distribution	Number of received samples	Number of valid samples	Percentage of responsiveness

120	120	120	%100
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Data for this study were collected from a sample of 120 subjects from twelve private and governmental entities (table I) operating in different industries: Textile, Advertising, Communications, Construction, Aviation, Energy, Banking and Health. Snowball technique was used for data collection.

Items to measure constructs in the model were mainly adopted from prior research. Each individual was asked to indicate the extent of agreement with statements about the adoption of ICT, using a seven-point Likert scale ranging from (1) Strongly Disagree to (7) Strongly Agree for each factor. All items are shown in Appendix. The questionnaire is divided into two main sections: respondent profile, and measures of the variables. The respondent profile section contains general questions about the respondent, such as name, address, gender, age, education level family member, income.

To assess transformational leadership, we used the Multifactor Leadership Questionnaire (MLQ) Form, also known as 5X-Short ([Bass, Avolio, Jung, & Berson, 2003](#)). This twenty-item measure has multi-item subscales corresponding to four dimensions:(1)charisma (attributed) (e.g., “Instills pride in me for being associated with him /her.”), and (2)inspirational leadership (behavior) (e.g., “Talks optimistically about the future”); (3) intellectual stimulation (e.g., “Re-examines critical assumptions to question whether they are appropriate.”); and (4) individual consideration (e.g., “Treats me as an individual rather than just as a member of a group.”). The Cronbch’s alpha for these items was .76 revealing sufficient reliability (alphas > .70).

We adopted six-item scale from previous work [Kuvaas and Dysvik \(2009\)](#) and [Dysvik and Kuvaas \(2010\)](#) to measure intrinsic motivation. Sample items are “my job is very exciting” and “My job is meaningful”. The Cronbch’s alpha for intrinsic motivation was indicating adequate reliability (alpha> .70). We adopted [Dittrich and Carrell \(1976\)](#) seven -item Scale to measure perceived fairness. Sample items are “I should have an opportunity to express my feeling during my performance” and “My salary increases should be tied to my performance results” The Cronbch’s alpha for perceived fairness was 0.63 indicating adequate reliability (alpha> .70). We adopted [Smith \(1969\)](#) seven-item scale to measure job satisfaction. Sample items are “I have adequate supplies/equipment necessary to complete my job.” and “My supervisor should listen to my job complains.” The Cronbch’s alpha for job satisfaction was 0.669 indicating adequate reliability (alpha > .60).

SPSS was used to perform statistical tests and analysis. Correlation and regression analysis used to see whether the relations are statistically significant or not. In order to test the moderator effect, we adapted the hierarchical regression. Path analysis was used for estimation of mediation effect.

5. Analyses

Table II Descriptive Analysis

N=120	Categories	Frequencies	Percentage
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Age	20-29	81	67.5
	30-39	27	22.5
	40-49	8	6.7
	50 or above	4	3.3
Gender	Male	76	63.3
	Female	44	36.7
Education	High school	14	11.7
	Under graduate	54	45
	Post graduate	49	40.8
	No formal education	3	2.5
Income	Less than 40000	49	40.8
	40000-70000	24	20
	70000-100000	16	13.3
	More than 100000	31	25.8

Table II describes characteristics of sample. Total sample size was comprises of 120 respondents. 67.5 percent respondents were from 20-29 years age group. Representation of male respondents is 63.3 percent while females are 36.7 percent. So, sample is male dominant in nature. In terms of educational groups; high school respondents were 11.7 percent, under graduate were 45 percent, post graduate were 40.8 percent and 2.5 percent respondents does not have any formal education. Major respondents group earn less than 4000 Dubai Riyal.

***Table III Model Constructs Cronbch's Alpha**

Variables	No of Items	Cronbch's Alpha
Transformational leadership	20	.848
Perceived fairness	5	.669
Intrinsic motivation	5	.770

Job satisfaction	5	.634
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To make sure about content validity of the study, it was disclosed to a number of doctors and professors in China and Middle East. With approval of experts 35 items were selected which comprises 20 items of transformational leadership, 5 items of perceived fairness, 5 for intrinsic motivation and 5 of job satisfaction. Transformational leadership has four branches – charisma, individualized consideration, intellectual stimulation, inspirational leadership.

As summarized in Table III, all scales that represent in the TPIJ constructs appear to have a good degree of reliability since each computed statistic is greater than threshold value of 60. So, all constructs fulfill sufficient criteria of reliability analysis. Transformational leadership and intrinsic motivation scale exhibits high reliability while perceived fairness and job satisfaction scale is fairly reliable.

***Table IV Correlation analyses**

		Mean	ST	Model 1	Model 2	Model 3	Model4
Job Satisfaction	Pearson Correlation Sig. (2-tailed)	5.52	.97				
Motivation	Pearson Correlation Sig. (2-tailed)	5.90	.98	.609** .000			
Perceived Fairness	Pearson Correlation Sig. (2-tailed)	5.43	.91	.493** .000	.550** .000		
Leadership	Pearson Correlation Sig. (2-tailed)	5.48	.77	.373** .000	.464** .000	.480** .000	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Correlation analysis is shown in Table IV. Pearson correlation coefficient shows that there is strong

correlation between transformational leadership, perceived fairness, intrinsic motivation and job satisfaction at significance level 0.01 and 0.05. Transformational leadership which comprises of various scales i.e. Charisma, Intellectual Stimulation, and Inspirational Leadership. Individualized consideration has significant positive correlation with perceived fairness, motivation and job satisfaction. Among all variables, motivation shows vary high correlation with dependent variable job satisfaction. (Table IV) provides a summary of a Latent Variable Correlation analysis to test the relationships among the TPIJ construct. It appears that the data collected support a strong relationship between transformational leadership and job satisfaction, also between perceived fairness and job satisfaction, also between intrinsic motivation and job satisfaction.

5.1. Mediation Analysis

***Table V Results of Hypotheses Testing**

	Criterion variables		
	Perceived fairness	Job satisfaction	
Predictor variables	Model 1	Model 2	Model 3
Controls			
Direct effects			
Transformational leadership	.48 [*]	.37 [*]	.17
Mediating effects			
Perceived fairness			.40 [*]
R^2	.26	.23	.26

According to Baron and Kenny (1986) procedure, to test the mediating effects of perceived fairness in the relationship between transformational leadership and job satisfaction, and the full results are presented in Table V. First, transformational leadership was positively related to perceived fairness ($\beta = .48$, $p < .05$, see Model 1). So, we can accept H2 that transformational leadership positively affects perceived fairness. Second, transformational leadership was positively related to job satisfaction ($\beta = .37$, $p < .05$, see Model 2). So, we can accept H1 that transformational leadership has positive impact on employee job satisfaction. Third, when the effects of perceived fairness and transformational leadership were

considered together (see Model 3), transformational leadership ($\beta = .17$, *ns*) was non-significant, but perceived fairness was significant ($\beta = .40$, $p < .05$). So, we can accept H4 that perceived fairness mediate relationship between transformational leadership and job performance.

5.2. Analysis of heretical regression analysis

*** Table VI Hierarchal regression analysis**

Variables	Model 1	Model 2	Model 3	Model 4
	β	β	β	β
Step 1: Control				
Age	-.277*			
Gender	.298			
Education level	-.056			
Monthly income	.025			
Step 2: Independent				
Perceived fairness		.493**		
Step 3: Moderator(both are independent)				
Perceive fairness			.226**	
Intrinsic motivation			.485**	
Step 4: Interaction terms				
Perceive fairness				.221*
Intrinsic motivation				.502*
Perceive fairness * Intrinsic motivation				.454*
R ²	.257	.493	.407	.410
Adjusted R ²	.034	.243	.397	.395
F	2.036	37.868	40.151	26.853

Table VI presents the results of the hierarchical regression analysis. The variables were entered into the regression equation in four steps. The control variables were entered in the first step, the independent variable was added in the second step, the moderator variables were added in the third step, and the interaction terms obtained by multiplying the moderator variables by the independent variable were added in the fourth step. We used the centering procedure suggested by [Aiken, West, and Reno \(1991\)](#) for regression analysis using interaction terms.

The interaction of perceived fairness and intrinsic motivation were added in the fourth step. Step 3 shows that perceived fairness and intrinsic motivation has significantly positive relationship with employee job satisfaction. So we can accept H3 that perceived fairness affect job satisfaction positively. Value of R^2 changed from 0.407 to 0.410 which states that intrinsic motivation moderated the relationship between perceived fairness and job satisfaction, so we can accept H4. But this moderation is very weak and difference of R^2 is just 0.03, so we can say intensity of moderation is low and intrinsic motivation influence perceived fairness a little.

6. Conclusion

In the context of Middle East, transformational leadership has direct impact on job satisfaction. Employees tend to receive stimulation and inspirational values from their leaders. They tend to decode the messages sent by their managers as form of inspiration and motivation to be meaningful and useful to boost their wellbeing. Salary and other packages of physical encouragement have not necessary to ensure job satisfaction; however, other factors like inspiration, consideration and charisma provided by manager's present profound psychological encouragement. Transformational leadership has profound impact on job satisfaction.

Transformational leadership has strong relationship with perceived fairness. Employees also tend perceive company either favorably or unfavorably based on nature of leadership .When leaders tend to stimulate their subordinates and drive them to act or think based or predetermined perception , they act carefully in accordance to that predetermined image to make their followers perceive that they are fairly treated in company. Employees in Middle East have satisfied to organizational fairness. They get all physical and psychological support which has fairly distributed among all the employees to improve their work outcomes.

Employees images transformational leaders favorably and according to that perception, they tend to feel satisfied of their workplace and leadership style they undergo. Perception plays important role in determining job satisfaction of employees .Employees believe and perceive that their organization provide them with all the necessary tools to boost their satisfaction. This study also suggests that perception of employees about fairness of organizational system and culture contributes towards higher levels of job satisfaction.

Investigating the moderator role of intrinsic motivation between perceived fairness and job satisfaction, intrinsic motivation was founded to be moderator of relationship between them but value has not very high. Intrinsic motivation enhances employee satisfaction but management has to consider other motivational factors in order to increase overall employee satisfaction. In Middle East, may be employees' value more extrinsic motivational factors or more inclined towards material benefits. Further investigation has required in this regard.

6.1. Recommendations and Limitations

Organization should reinforce and refine the confidence of employees to concept of leadership; it should present it in new form and set rules to control it. Organization should take job satisfaction to boost the leadership behaviors among managers, which could serve job satisfaction orientation. Organization should impose supervision in order to split between culture and work place. Leadership qualities should

be stressed on leaders of both sectors – governmental or non -governmental order to function well and serve the orientations.

A primary limitation of study has relatively small sample size. Small sample sizes decrease power of statistical tests, making Type II errors more likely (Cohen, 1988). Furthermore, study was conducted to few numbers of companies, thus limiting degree to which the results might be generalized. Questionnaires were completed at one point of time by respondents, so results are also subject to common method and common source bias.

There has less research available on transformational leadership in developing countries context. This has very important area, and it has recommended replicating this study in under developing countries and under different cultural context. Furthermore, role of intrinsic motivation in transformational leadership required further investigation. There has strong theoretical support for positive role intrinsic motivation in building employee job satisfaction but less statistical evidence available, so it has recommended to further investigate intrinsic motivation in different industries, cultures and especially in governmental and non-governmental institutes.

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DECISION MAKING STYLES OF YOUNG PAKISTANI CONSUMERS: A STUDY OF CONSUMER STYLE INVENTORY (CSI)

Zubair Nawaz^{12*}, Jing Zhang¹, Rafiq Mansoor¹, Afaq Ahmad³, Ihtesham Ali Bangash¹

*Corresponding Author: I201722054@hust.edu.cn

¹ School of Management, Huazhong University of Science and Technology, Wuhan, Hubei, China

² Noon Business School, University of Sargodha, Punjab, Pakistan

³ Zhongnan University of Economics and Law, Wuhan, Hubei, China

Abstract

The purpose of this paper is to determine and analyze the decision making styles of Pakistani consumers in shopping product category. Consumer Style Inventory (CSI) is used in order to understand decision making styles of Pakistani consumers. A survey was conducted and a self-administrated questionnaire of CSI was used to collect the data from students. SPSS 20 was used for data analysis. Descriptive statistics and factor analysis was used to explore the decision making styles. Consumer Style Inventory (CSI) in Pakistan explores that six decision making styles exist among youth of Pakistan; Hedonistic Consciousness, Perfection Conscious, Brand conscious, Value Conscious, Confuse by over choice behavior and impulsive buying behavior. Deviations from original CSI decision making styles are due to political, economic and social differences between the countries. This study provides insights about consumer behavior of Pakistani consumers and their decision making styles. Managers can implicate the results for the purpose of designing marketing strategy and segmentation.

Keywords: Consumer Style Inventory, Decision Making Styles, Consumer Behavior Pakistan

1. Introduction

The consumer behavior science express that consumers use specific characteristics while buying (Dittmar et al., 1996; Walsh and Mitchell, 2002). Marketing managers eagerly try to understand market situations and consumer buying behavior. This is information technology era; marketing environment is very complex and dynamic in nature. Information about customers and their needs and wants is substantial to success of a marketing strategy. Understanding motives behind the purchase decisions is vital concerns for brand managers. Consumer buying and decision making process is crucial to understand. Consumer Decision Making Styles (CDMS) help marketers understand the potential customers, to launch a new product, to advertise existing product and for the purpose of segmentation (Walsh & Mitchell, 2002). Business organizations develop marketing strategies according to buying pattern of the consumers.

In order to understand consumer decision making styles (CDMS) three approaches has been suggested by researches: Consumer characteristic approach (SPROTLES & Kendall, 1986); consumer

typology approach (Darden and Dorsch, 1990); lifestyle approach (Lastovicka et al., 1990). Among these approaches, however, the consumer characteristics approach seems to more explanatory and valid since it deals with mental models (Durvasula et al., 2001). The consumer characteristic approach deals with eight decision making styles; Perfectionism Consciousness, Brand consciousness, Novelty and Fashion Consciousness, Recreational and Hedonistic Consciousness, Price and Value Consciousness, Impulsiveness and Carelessness, Confused by over choice and brand loyal orientation. This research also focuses on consumer characteristics approach. These decision making styles can help managers to seek information at regional level.

Pakistani consumer market is very versatile due to enriched and diverse culture. There are many sub cultures in each province of Pakistan. Consumer market shows different characteristics alongside country. Literacy rate is 60 percent (2018). Pakistan is considered as a collectivist society and most of decision making is influenced by family, friends and social circle (Hofstede, 1984).

The purpose of this paper is to determine and analyze the decision making styles of Pakistani consumers; and to find which decision making style is more prominent and valuable among consumer markets of Pakistan customer. General population follows which mindset style while making decisions about purchasing new product, and what could be relative importance of each consumer decision making style.

Based on purpose of the study, following research questions are proposed:

- Is decision making styles of Pakistani consumers significantly differ from eight decisions making consumer styles? (i.e. Perfectionism Consciousness, Brand consciousness, Novelty and Fashion Consciousness, Recreational and Hedonistic Consciousness, Price and Value Consciousness, Impulsiveness and Carelessness, Confused by over choice and brand loyal orientation)
- Which decision making styles are more common and valuable in Pakistani consumer market?

2. Literature Review

Life style approach, consumer typology approach and consumer characteristics approach explain buying behavior of consumer. Life style approach deals with psychographic life style segmentations and individual take similar decisions according to association with segment (Lastovicka et. al, 1990). This approach is good for segmentation but not comprehensively explain about decision making. Consumer typology approach explains that consumers make mindset and intentions before actual buying encounter. According to consumer typology approach, consumer set a preplanned set of rules to evaluate alternatives and these set of rules guide consumer throughout the purchase transaction (Darden & Dorsch, 1990). The consumer characteristic approach is originated by Sproles and Kendall (1986). They developed a questionnaire which contains 50 items to measure common characteristics toward buying the products. Sproles and Kendall (1986) purposed nine DMS derived from the 50 items. Factor analysis categories nine decision making styles into six styles and it is considered that three unconfirmed styles are similar to the remaining six DMS. Kendall and Sproles (1986) develop an instrument of 40 items in order to explain Consumer Decision Making Styles (CDMS). Theses 40 items are named as consumer style inventory (CSI). Factor analysis of CSI confirmed eight decision making styles.

(1) Perfectionism Consciousness (considering the quality);

- (2) Brand consciousness (paying attention to the brand);
- (3) Novelty and Fashion Consciousness (choosing the trendy and new things to buy);
- (4) Recreational and Hedonistic Consciousness (buying for the fun of it);
- (5) Price and Value Consciousness (considering the value and the price);
- (6) Impulsiveness and Carelessness (buying regardless of any thought before);
- (7) Confused by over choice (consumer does not know what to buy due to lots of choices); and
- (8) Habitual, brand loyal orientation (loyalty and buying because you are used to doing so).

CSI has been tested in different countries, including China, US, India, New Zealand, Germany, Iran and South Korea (Lastovicka et al., 1990; Lysonski et al., 1996; Ünal and Ercis, 2008; Walsh and Mitchell, 2002). A study was conducted in US, New Zealand, India and Greece follow three major styles which are brand loyal orientation, brand consciousness and novelty and fashion consciousness and suggest that CSI is more applicable to the developed countries (Lysonski, Durvasula, & Zotos, 1996).

Due to cultural, political, economic, social and geographical differences every country exhibit unique set of decision making styles. The results indicates that eight-factor model is not consistent across countries , and thus further research is required in different environments to validate CSI system (Stoel et al., 2004). So, it is obvious that CSI does not provided a universal solution of decision making; and styles of decision making vary across different countries. Previous researches suggest that CDMS are also depends upon the economic conditions of the country and social class of individual. Income and loyalty having strong relationship (Homburg and Giering, 2001). High income group mostly loyal and perfectionist conscious (Wesley et al., 2006). Culture shapes the behaviors of people and regional differences in culture effect decision making styles. Degree of urbanization is important while designing marketing strategy because culture effect decision making of individuals (Sun et al., 2013).

Individual behavior, attitude, norms and values also effect the generalization of CSI system. Lysonski *et al.*, (1996) analyzed the cross-cultural generalization of the instrument by taking a sample of university students, and realized that the instrument was applicable, although a few items were loaded differently compared with the original study of Kendell.

A CSI research is taken in the Iran, this study exhibits that gender having a strong influence on the decision making styles (Moosavi Kavkani et al., 2011). According to the results, males are more impulsive than females; women's are influenced by recreational and hedonistic consciousness's novelty and fashion consciousness, and perfection consciousness. Another study regarding decision making based on gender found that only few CDMS were common for both men and women (Bakewell et al., 2006; Mitchell and Walsh, 2004). Bakewell *et al.*, (2006) identified that men's decision making is about problem solving or for satisfaction of the need but women's are likely to take shopping as a recreational activity. He also explore that men take less time to purchase the things (Zeithaml, 1985). Males are less quality conscious and fashion conscious, but females pay more attention to brands, quality and novelty of the products (Mitchell and Walsh, 2004).

A cross country comparison between developing and developed countries shows that "brand conscious", "Novelty and fashion conscious" and "habitual brand loyalty" is common among developing countries and developed countries; but developed countries (New Zealand and US) rank "recreational

conscious” shopping style high while developing (India and Greek) rank “brand Conscious” high among other shopping styles (Lysonski et al., 1996). In developing country i.e. India, people are more conscious towards brands to associate them with higher class. Later on, another study about retail market of India also verified that Indians are more inclined towards “Brand Conscious behavior” (Lysonski and Durvasula, 2013).

An interesting study in food industry investigate relationship of socio-demographic variables with decision making styles; and explore that “quality conscious” “perfectionism” having strong relationship with age, income and food product involvement (Anić et al., 2014). Furthermore; Price consciousness by age, education and income; Impulsiveness by age, education and income; Confusion by over choice by education and food product involvement.

Information technology revolution replaces traditional markets to modern e-markets. Ultimately, decision making styles are also changing and becoming more complex. A study verified 20 items consumer inventory style for online consumers of Macau, China (Sam and Chatwin, 2015). Sam (2015) identified three new dimensions related to online shopping behaviors which include product portability conscious, website content conscious and website interface conscious. Seven factors identified in this study. Quality conscious explains consider to be most important which explains 18.34 percent variance, brand conscious explains 15.5 percent variance, novelty explains 11.6 percent variance, fashion conscious 9.3 percent variance, price conscious 7.6 percent variance, product portability conscious 6.7 percent variance, website content conscious 6 percent variance, 5.14 percent variance explained by website interface conscious. Another study about peasant consumers, indicate that dominate decision making style is “confuse with our choice” due to lack of technical knowledge about products (Baoku et al., 2010). So, different industries have different set of decision making styles.

Another study identify link between consumer style inventory (CSI) with word of mouth and social networking sites i.e. Facebook, Twitter. Novelty and fashion conscious decision makers are more likely to seek opinion from social media sites while brand conscious is most important antecedent of positive attitude towards shopping (M. Kang et al., 2014).

Consumer decision making styles can also provide a solid base for segmentation. A research study has been done to provide insights of segmentation in digital market of Tehran (Mohsenin et al., 2018). Mohsenin (2018) identify a new decision making style while performing EFA and name it “Premeditated buying” . Premeditated buying is basically rational decision making which a consumer do on the bases of extensive search of information before purchase transaction. This information search includes features of product, comparison of alternatives and price. Product category is important while understanding of decision making styles. Results of one product category cannot be generalized to other category. In sports products, Japanese are more brands conscious but generally they are considered to be quality conscious (Bae et al., 2015).

From above mention literature, it can concluded that consumer style inventory provide useful insights of consumer behavior and helps marketers to understand market, target customers and to build marketing strategies. This study also attempts to explore insights of Pakistani consumer buying and decision making patterns.

Based on literature review and research question following hypothesis can be stated;

H1: Decision making styles of Pakistani consumers significantly differ from eight consumer decisions making styles; Perfectionism Consciousness, Brand consciousness, Novelty Consciousness, Hedonistic Consciousness, Value Consciousness, Impulsiveness, Confused by over choice and brand loyal orientation.

3. Methodology

This research has been conducted in order to determine decision making styles of Pakistani customers and to gauge which element of CSI is relatively important in Pakistani prospective. For this purpose, 300 questionnaires were distributed in the University of Sargodha, Sargodha which is one of the prestigious universities of Pakistan. The questions adapted from Seyyed Ali Moosavi Kavkani (2011). From a total of 300 questionnaires, 260 completely filled questionnaires were returned; 40 discarded due to response biases and incompleteness. Response rate was 86 percent which is good enough to meet requirement of analysis. The convenient sampling technique was used due to lack of time and financial resources.

The questionnaires were filled in the month of May, 2018. The questionnaire consisted of the total 40 questions which were classified according to decision making styles, the first five items were related to the Perfectionism Consciousness, four items were related to the Brand Consciousness, five items were related to the Novelty and Fashion Consciousness, five items were related to the Recreational and Hedonistic Consciousness, Seven items were related to the Price and Value Consciousness, six items were related to the Impulsiveness and Carelessness, four items were related to Confused by over choice and the last four items were related to the Habitual, brand loyal orientation. Two additional questions were used, from which first question was about the gender and other was about the age of respondents. The five-point Likert scale was used (where 1 equals strongly disagree and 5 equals strongly agree). Data was analyzed by using SPSS 20.

4. Data Analysis and Interpretation

Descriptive analysis (Table 4.1) showed that the following questionnaires were filled from 250 female and 122 male respondents. Females' representation in the sample is 67.2 percent and males are 32.8%. Similarly, 14% respondents were between the ages of 17-19 years. Nearly 62% were between the ages of 20-22 years, and about 24 percent were 23 years old and above. Representation of female group is dominant in sample size. Most of the respondents belong to 20-22 years age group.

Table 4.1 Descriptive Analysis

N=372		Categories	Frequencies	Percentage
Age		17 to 19	52	14.0
		20 to 22	230	61.8
		23 and above	90	24.2

	Male	76	63.3
Gender	Female	44	36.7

KMO coefficient value is .817 which is greater than cut off value (0.5). Bartlett test of sphericity is also significant (0.00), so this data is suitable for factor analysis.

TABLE 4.2 Sphericity test

KMO and Bartlett's Test		
<hr/>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.817
	Approx. Chi-Square	5056.217
Bartlett's Test of Sphericity	Df	780
	Sig.	.000

Scree plot analysis (Figure 4.1) also shows that there are six components which having higher eigen value (value>1) and after six components line become less steeper and close to horizontal axis.

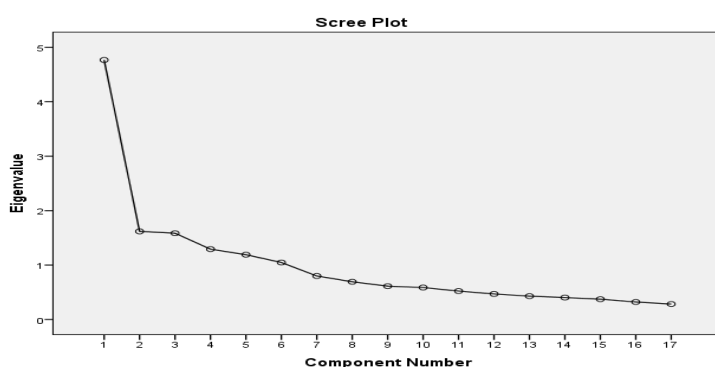


Figure 4.1

Principle component analysis (PCA) suggests that there are 6 components which explain 60.436% of overall variance (Table 4.3). We only include those components who having Eigen values greater than 1. In this sort of study, 67.6% explained variance is acceptable. In other studies of this kind variance has values as following: Sproles and Kendall (1986) 46 percent, 47 percent, Fan and Xiao (1998) 35 percent, Siu *et al.*, (2001) 65 percent and tanksale *et al.*, (2014) 57.5 percent.

Table 4.3 Principle component Analysis

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.767	28.039	28.039	2.339	13.761	13.761
2	1.619	9.521	37.560	2.264	13.316	27.077
3	1.585	9.325	46.885	1.984	11.669	38.746
4	1.293	7.603	54.488	1.926	11.328	50.074
5	1.191	7.003	61.491	1.601	9.415	59.489

6	1.047	6.159	67.650	1.387	8.161	67.650
7	.800	4.704	72.355			
8	.693	4.078	76.432			
9	.613	3.606	80.038			
10	.588	3.458	83.496			
11	.523	3.075	86.571			
12	.470	2.763	89.334			
13	.429	2.526	91.860			
14	.404	2.374	94.234			
15	.374	2.199	96.433			
16	.322	1.894	98.327			
17	.284	1.673	100.000			

Extraction Method: Principal Component Analysis.

Final rotated component matrix (Table 4.3) that includes 17 items loadings which comprise six factors. It means there are six decision making styles are dominant in Pakistan; which are Recreational and Hedonistic Consciousness, Perfectionism Consciousness, Brand consciousness, Price and Value Consciousness, Confused by over choices and Impulsive buying behavior. Factor analysis shows that two shopping decision making styles; novelty conscious and habitual behavior is least common in case of Pakistan.

Rotated component matrix shows that Recreational and Hedonistic Consciousness is most important decision making factor which explains 13.761 percent of total variance. Pakistani consumers are not only looking for satisfaction of need but they also take shopping as recreational activity. Females were dominated in the sample size, so we can say shopping as recreational activity is common in Pakistani females.

Second most important factor is Perfectionism Consciousness which explains 13.316 percent variance. Perfectionism Conscious behavior is more related towards quality of features. In clothing, quality of stuff is very important concern for customers. Brand consciousness and Value Consciousness are 3rd and 4th most important behaviors which explain 11.669 % and 11.328 % respectively. Brands are important concern for customers in clothing industry but due less average income and average spending, people are not willing to spend too much money on higher brands. People think more about materialistic benefits rather than emotional benefits. Novelty conscious decision making style is fifth in rank which explains 9.415 percent variance. Impulsive behavior is last decision making style which explains only 8.161 percent variance. Reliability analysis shows that all the decision making factors shows sufficient reliability except impulsive decision making style (Factor 6).

Table 4.4: Consumer decision making styles in Pakistan

Factors	Loadings	Cronbach Alpha
Factor 1: Recreational and Hedonistic Consciousness		
I enjoy buying new clothes (rh2)	.817	

Shopping is very enjoyable to me (rh3)	.792	$\alpha = 0.788$
It's fun and exciting to buy new clothes (rh1)	.765	
Factor 2: Price and Value Consciousness		
When it comes to purchasing clothes, I try to get the very best or perfect choice (pc2)	.851	
In general, I usually try to buy the best overall quality (pc1)	.812	$\alpha = 0.816$
I make special effort to choose the very best quality clothes (pc3)	.713	
Factor 3: Brand consciousness		
I have favorite clothing brands I buy every time (bc4)	.820	
I usually buy well-known clothing brands (bc1)	.748	$\alpha = 0.742$
I prefer buying the best-selling brands (bc3)	.684	
Factor 4: Price and Value Consciousness		
I look very carefully to find the best value for money (pv5)	.754	
I am very cautious about the amount of money spent on clothes (pv6)	.735	$\alpha = 0.646$
I try to buy my clothes during special sales (pv3)	.643	
I spend much time to have a good (valuable) purchase (pv7)	.529	
Factor 5: Confused by over choice		
There are so many brands to choose from that I often feel confused (oc2)	.873	$\alpha = 0.718$
I am usually confused when buying clothes (oc1)	.860	
Factor 6: Impulsiveness and Carelessness		
I spend little time to buy my clothes (ic2)	.831	$\alpha = 0.478$
I buy the very first suitable clothing available (ic3)	.739	

5. Discussion

This research provides many interesting insights about consumers of Pakistani markets in clothing industry. Marketers can design marketing strategies to target right customers on the basis of decision making styles. Recreational and Hedonistic Consciousness behavior is dominant in Pakistani markets. It is important for companies and marketers to provide better shopping experience to enhance sales. Product design and packaging should be interesting. Outlet layout and employee service can play major role in enhancing quality of shopping experience. Shopping is now become recreational activity, people love to buy the things without the needs. Specially, females like to shop just for fun and it became habit to amuse them. In this study, there is dominance of females in the sample (67%) so it can be limitation in generalization of results. Quality is always an important factor in shopping. People like to buy best quality products. Perfectionism Consciousness decision making style is the 2nd highest in CSI group.

Brand conscious peoples are high in the clothing sector of Pakistan. In this study, data was collected from young, educated and University students and we can say that young Pakistanis' are brand oriented. Either they are adopting international brands or national brands. Companies have to focus on branding strategies in order to attract youngsters. Building brand image and overall brand equity should be the concerns for marketing managers. Pakistan and India are both developing countries and also having a lot of cultural and regional similarities. Previous research identifies that Indians are brand conscious in decision making and this research shows that Pakistani consumers are also conscious about brands (Lyonski and Durvasula, 2013). The psychological consideration behind this decision making style is to associate with upper social class who use high quality brands. Relative importance of branding is higher in Indians as compare to Pakistani consumers.

Value Conscious customers always compare benefits and costs associated with product. Product features, designs and style is important special in clothing sector. Some consumers give value to novelty and new arrivals in clothing and try to find different designs.

6. Recommendations and Limitations

Consumer decision making styles according to CSI need more purification. Cluster or stratified cluster sampling can be used in order to get more deep insights of consumer behavior. Pakistan population having very diverse and rich culture and generalizability is somewhat limited from one city sample. Demographics can be included to compare results of different regions, social class, income group and gender. It would be interesting study to evaluate change in decision making styles and to measure effectiveness of different marketing tools i.e. sales promotion, advertising, personal selling and direct selling. Sample size comprises young and educated university students. Results may differ if different age group is tested, e.g. above 40 years old.

Decision making styles of consumers varies with product categories. A person may show impulsive decision behavior in consumer goods while in shopping product category shows brand conscious behavior. So it is highly recommended to check consumer decision making styles for different product categories. Results of one industry can also be not generalized to all industries. So, further research can be done for different industries. Business-to-Business (B2B) decision making styles should be different then consumers. So, required special attention of researchers and further studies can elaborate this area.

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MOBILE-PHONE APPLICATION IN WATER CONSTRAINED ENVIRONMENT FOR EFFECTIVE LOCAL ENTREPRENEUR WATER SUPPLY AND DELIVERY MANAGEMENT: A DEVELOPING COUNTRIES PERSPECTIVE

OLABODE SAMUEL AKINSOLA¹

Department of Informatics
Faculty of Computing and Informatics
Namibia University of Science and Technology
Telephone / Mobile +264814588981
EMAIL: sakinsola@nust.na

ALFRED COLEMAN²

Department of Computer Science
School of Computing, University of South Africa, South Africa
Telephone/ Mobile: 0027731370859
colema@unisa.ac.za

Abstract

City dwellers in some developing countries struggle to have access to regular, reliable, safe and affordable water. While the penetration of mobile phones is increasing. The question is how can mobile phone technologies be applied to improve water supply to city dwellers in developing countries? In this study, we investigated the communication process of water supply and delivery system between independent water contractors called the "tututus" and water users in our context of study. A case study approach was used. Participants were selected from Adenta area of Accra in Ghana. The findings revealed that the most common form of water usage is through the pipe water. However, because water is not consistently available, users depend on "tututus" to supplement their water needs using mobile phones. In the study, distribution of water using mobile-phone (WSMF) framework is proposed to facilitate the management of water supply and delivery, and enable government to effectively allocate resources.

Key words: water supply, socio-economic development, mobile phone; communication process, developing countries

Introduction

The Millennium Development Goals Report (MDG) 2012, reported that 11% of the global population, remain without access to proper drinking water (Floridi, 2016). Sources of drinkable water in this regard include household connections to tap water, public standpipes, boreholes, protected dug wells, protected springs and rainwater collections. The report further indicates that over 40 % of all people living in sub-Saharan Africa are without proper drinking water of which Ghana forms part of countries without proper drinking water. Prior to the MDG report, Ghana has established an integrated water resources management policy in June 2007 to address water needs for energy, food security and transportation (GoG, 2010). The policy also highlights the international legal framework for domestic and trans-boundary utilisation of water resources. The first principle of the policy is based on fundamental right of all people to safe and adequate water to meet their basic human needs. This is further supported by the principle of “meeting the social needs for water as a priority, while recognising the economic value of water and the goods and services it provides” (GoG, 2010). Among the objectives of the policy, is the need to facilitate the development of strategy for the improvement of access to water as a resource, without discrimination, in order to enhance its management as well as the deployment of water resources in areas where its usage will be most impactful. This policy initiative is to safeguard the entire population, particularly the poor of the poor and the vulnerable, to have access to adequate drinking water and those required for healthy living.

Despite the good intention of the national government initiative towards water supply and its benefits of improving sanitation facilities in Ghana, the implementation of these initiatives like many other social services have been severely constrained by national funding, as in the case of other developing countries. Funding for water supply, particularly to the rural communities, for example have been cut at an alarming rate (Acquah, 2009). Secondly, the lack of effective and efficient institutional strategic arrangement to

support water distribution and sanitation facilities provision, in addition to the lack of political will and commitment to provide potable water to people have become a nightmare. All of the above factors have hampered past government initiatives and efforts to reach out to the communities that are in need of water and those who are yet to be provided with water for sanitation purposes. According to Water Aid (2008), only 25% of the residents in the capital city of Ghana, Accra receives continuous water supply, whereas approximately 30% receive water five days in a week while 35% of the population are supplied with water for two days in each week. The remaining 10% who live mainly on the outskirts of the capital are completely without access to piped water

Water resource and its effective management are essential and crucial for sustainable development, for healthy living and in eradicating water related diseases and epidemics. It is regarded as the most valuable tool for sanitation purposes. Water management being a multi-disciplinary, multi-sector and multi-objectives field of human endeavor, composed of various sections, comprising varied interest groups. For example engineers are required when there is the need to construct dams, build reservoirs, management of ..or flood protection and the like, while the economics fields' attention will be needed when water use efficiency, cost recovery, creation of water market and issues concerning privatization are of necessity. Water management as indicated by Servenije and Hoekstra (sa), is considered contextual; individual background and profession dictates opinion, perception and shape people's idea about water resource management. The challenge to be addressed in this paper thus, required different solution to water resource management from the perspective of information and communication professional.

In this regard, considering the implication of living without water for drinking, cooking and sanitation; people living on the outskirts of Accra, have no option but to rely on individual arrangement with water supply agents for their water needs. These group of water supply agents are considered as external support water agents, because they have no direct affiliation with institutions or organizations saddle with the responsibility by government to supply water to communities. They are group whose objectives are to

fill the vacuum created by inadequacy of government to supply water to rural communities, improve their economic well-being through water supply for a fee; they are from a number of independent contractors including those locals called “tututus”. These tututus are independent water contractors who use small tractors with a water tanker mounted on a trailer to transport water to users who are in need of water for fees. These tututus buy water from the city centre and sell it to residents who are in need of water. The process of buying water and selling it to other users by the “tututus” is marred with problem of communication when buyers are placing orders for water. However, the use of mobile phones as an enabling tool has the potential to improve communication between the “tututus” water suppliers and those who need water in Ghana and other developing countries.

Objective: Therefore, the objectives of this paper is to investigate the use of mobile information and communication technology process for the facilitation of water supply between the independent contractors called the “tututus” and the users of water in various residence in Accra who need water. Based on the findings, a water supply and demand mobile phone framework (WSMF) would be proposed to support water supply in needed areas of Accra region of Ghana. This framework could be applied in other developing countries with similar challenges to improve water supply management to needed families.

The content of this paper is presented as follows: literature, methods, results and discussion, proposed water supply mobile phone framework (WSMF) and, finally, the conclusion

1. Literature review

1.1. Water supply in developing countries

Rapidly growing populations, decreasing water availability, and more erratic precipitation due to climate change are causing water crisis among the urban poor (Barlow & Clarke, 2017) . Millions of city dwellers in developing countries don’t have access to regular, reliable, safe, or affordable water and

sanitation (Stoler et al., 2015). A growing number of developing countries including Ghana are no longer able to provide basic services necessary to fulfil the water needs of the population. Central governments, ministries and agencies in developing countries are finding it increasingly difficult to extend water and sanitation services to rural and urban areas through conventional public service delivery due to the following major reasons (Ngirrwa,1997). Firstly, water supply and sanitation facilities like many other social services have been constrained severely by national funding subjected to structural adjustment in which social sector funding including water, have been cut back at faster rate than average (Acquah, 2009).). Secondly, there is lack of effective and efficient institutional arrangement to support water and sanitation provision as well as the lack of political will and commitment to bring water to people. All of the above factors hampered government efforts to reach out to communities that need water. In this regard there has been a tendency of local community members in Ghana to rely on external support for water supply to maintain their water needs. The government of Ghana is unable to provide water to all the citizens in Ghana Accra due to financial, capacity and infrastructural difficulties. This has created a gap between government water suppliers and the needs of water consumption by home users. In order to tackle the problem of the wide gap between demands and supply of water for drinking and sanitation purposes, individual's users have come up with a way of communicating with private water suppliers who operate water distribution as a business. These private individuals obtain water from a stand point pipe, dug wells, rivers and rain water and deliver the water to these individual home users who are in need of water at a fee. The communication of the two parties need the intervention of the application of mobile communication technologies which may enable continuous and sustainable communication irrespective of time and place (Katz, 2017). Communication between individuals and the suppliers are assured with reliable feedback for quick decision making. As a result of technological advances, access to information as a two-way communication has becomes more available at the point of need to support transactional processes between the water suppliers and the individuals who may need water, for household use.

1.2. Socio economic benefits of mobile phones

Mobile phones have made a recent and rapid entrance into many parts of low- and middle-income world, with the global Mobile phone penetration rate drastically increasing over the last decade. Improvements to telecommunications technology infrastructure has reduced costs of mobile handsets. Low- and middle-income countries are utilizing mobile phones as "leapfrog technology". That is, mobile phones have allowed many developing countries, even those with relatively poor infrastructure, to bypass 20th century fixed-line technology (Michael, 2006). The number of global mobile phone subscribers in 2007 was estimated at 3.1 billion of an estimated global population of 6.6 billion (47%) (Agar, 2003). The greatest growth is expected in Asia, the Middle East, and Africa. Globally, there are 4.1 billion mobile phones in use as at December 2008 (Demirguc-Kunt et al., 2018)

While mobile phone penetration rates are on the rise, globally, the growth within countries is not generally evenly distributed. In India, for example, mobile phone penetration rates have increased remarkably, but the greatest growth rates are found in urban areas. So, while mobile phones may have the potential to provide greater opportunity to a larger portion of a population, there are certainly within-country equity issues to consider.

In Ghana 59.5 % of the population who are above the age of 15 years own mobile phones (Carmody, 2012). About 97% of the people who own mobile phone, operate it on Prepaid services and mostly depend on SMS and voice messages for communication. The percentage of people who utilize Facebook, Twitter, Mxit, or other social networking constitute 11.3% (Carmody, 2012). Mobile phones are spreading because the cost of mobile technology deployment is dropping and people are, on average, getting wealthier in low- and middle-income nations (Hughes et al., 2017)

Mobile phones in developing countries serve to improve the socio-economic standards of the population. There are many benefits which mobile phone provide to the users in developing countries, especially Africa. One of the benefits of mobile phone to the populace is to assist individuals to search for information easily without travelling or using old search methods like reading the newspaper or listening

to the radio (Aker and Mbiti, 2010). Another benefit of mobile phone usage in Africa, is seen in the area of small business operations. Small business owners take advantage of the massive communication networks to communicate or reach individual citizens for business transactions. Through the use of mobile phones communication between business and individuals or between business and business have improve efficiency in production.

In addition to these benefits, mobile phones in Africa create new jobs to address demand for mobile-related services. It assists provide income generation opportunities in rural and urban areas. Individuals learn the trade of cell phone repairs and sometimes network and cell phone gadget sellers. Africa mostly depend on agricultural market for economic development and the use of mobile phone has improved efficiency and productivity in this sector (Abraham, 2007, Muto and Yamano 2009).

The subsequent section will explore the relevant methodology to investigate the communication process of water supply between the independent contractors called the “tututus” and the users of water in various residence in Accra who need water and explore how mobile phone framework (WSMF) would support water supply in needed areas of Accra region of Ghana

2. Methodology

In order to achieve the objectives of this paper, the researcher carried out the study in Accra the capital city of Ghana. Accra is the most densely populated city in Ghana with many suburbs. Adenta suburb was purposefully selected for this study because it is the mostly affected area in terms of water supply. A case study approach was used. The participants for the study were drawn from the population of residents in six different homes and two different sub stations of independent water contractors (normally called tututus). In describing population, Dhivyadeepa (2013) indicates that it is a group of elements or cases, whether individuals, objects or events conform to a specific criteria. Struwig and Stead (2007) further

argue that population has certain characteristics that can be completely homogenous.

A purposive sampling technique was used in selecting the participants. One participant from each home and three water supply contractors were selected. The first 6 participants were selected based on their usage of water as consumers and 6 independent contractors by their profession which was relevant to the study. In total twelve Participants (6 water users plus 6 independent water suppliers) voluntarily participated in the study. Data was collected using semi structured open ended interviews. The interviewees (the 6 water users) were asked to express their perception using their own words;

1. How often do you get pipe water for use in a week?
2. What alternative methods do you use to get water in the absence of pipe water?
3. How do you communicate with the tututus to supply you with water and for how many times per week?
4. How often do you use mobile phones to contact the tututus for water?

The other set of interviewers (6 independent water suppliers- tututus) were asked to express their perception using their own words

1. How do you communicate with customers who need water?
2. Explain how you work from different locations and the number of times you transport water to different users per week.
3. Where do you get the water you supply to the users? (Estimate the distance from where you are stationed)
4. How do you think mobile phone usage will enhance your job performance?
5. Should the use of mobile phone be equipped with special application functions other than call and short text messages (SMS)?

The interviews lasted for close to one hour with each interviewee and were audio-recorded and transcribed by the researcher. Integrity of data entry from the study was checked by another independent

researcher. Transcripts were coded using Content analysis techniques as prescribed by Fraenkel, et al.,(2014). After the initial coding, an independent researcher and the main researcher met to check the consistency of their respective interpretation of the transcripts and the codes. The researcher then coded the final transcripts, identified the main themes, and traced possible relationships. Some broad categories of themes were identified as follows

1. Frequency of water supply by individual contractors to home users
2. Communication methods between the suppliers and the users
3. Effect of mobile phones on water supply services
4. The need for a water supply mobile phone framework (WSMF)
5. Economic viability and users satisfaction

The next section will elaborate on the results obtained from the interviews.

3. Results and discussion

3.1.Frequency of water supply by individual contractors to home users

The frequency of water supply to residences reported below is a summary of the 6 water users interviewed.

The interviewee indicated that communities such as Adenta , use different sources of water for different purposes. In most cases, while tap water is used for drinking and cooking, water sourced from hand dug well and river are used mainly for washing. The main reason for this is the long distance to reach a tap that provides safe water, where as other alternative sources which may be nearby and are either free or cost only a small fee compared to the safer sources. Most people draw their drinking water from communal and household taps, but some may result into using water from other sources such as dug wells and other unprotected sources for drinking and cooking purposes. The interviewee further indicated that

the tap water is accessible only for some few days in a week, hence the need for community members to seek for alternative measures. In most cases they depend on independent water contractor's called "tututus". One of the interviewee stated *"Drinking water is a problem in this area. Only those who can afford to buy big Poly tanks to store water purchased from tututus are able to use clean water every day."* This is supported by GoG (2010) who indicates that only 25% of the residents in the capital city of Ghana, [Accra](#) receives a continuous water supply; whereas approximately 30% receive water five days in a week. Another 35% are supplied with water for only two days in each week. The remaining 10% who live mainly on the outskirts of the capital are completely without access to piped borne water. This poses a serious health hazard to the communities in Ghana who are residing in areas without constant water supply. According to Schwab and Porter (2008), the health status of a community and the wellbeing of its residents in Ghana are dependent on the availability of clean and access to quality and affordable water for sanitation purposes. It is evident in the environmental health profile of most urban communities' resident in Ghana, their health profile is characterized by the predominance of infectious and communicable diseases are most often easily traceable to inadequate water and sanitation provision. Diseases commonly reported in these areas include diarrhoea, skin diseases, malaria and intestinal worms. Therefore, the frequency of water supply in Adenta community in Accra is a major challenge to the citizens and requires a pragmatic approach for sustainable solution.

3.2.Communication methods between the suppliers and the users

The interviewees who are home users of water supply indicated that most of the time they go to a station where many of these tututus have parked their water supply tractors. The home users do this by walking or by taking taxi cab to these stations. When they arrive at these stations they negotiate with the tututus owners to supply them with 20 or 50 liters of water. The tututus owners then charge them a price which sometimes require further negotiation between the two parties. The tututus owners then go out and seek for water source providers in the city centre or any neighbouring friends who has pipe water for sale. The

tututus owners buy this water and transport it to the home of the customer who requested for it.

The tututus owners sell this water at a profit. The profit they make ranges from 50% to 100% of the purchase price.

3.3. Effect of mobile phones on water supply services

When both groups of interviewee were asked about the effect of mobile phone on supply and usage of water, they indicated that mobile phones play a major role in contacting each other. The mobile phone becomes useful if only the water user knows the mobile number of the water contractor “tututus” or the water contractor has the phone numbers of the home users. In such instances the tututus call the home user to find out if they need some water. One tututus contractor said *“I phone my customers every week end to find out their water needs. Sometimes my customers phone me on my mobile phone and when I am not available, other Tututus water supplier take advantage and supply my customers”*. Two other tututus water suppliers indicated that, it sometimes become a problem to service these customers when their mobile phone run out of battery power. There is also no coordination and standardization of prices charged to home water users. Mobile phone connectivity was also raised as network signals drop frequently. Figure 1 below portrays a tututus supplier buying water from a water source provider to supply to a customer who needs water.



Figure1: Tututo water supplier in Ghana

As indicated, the above figure shows a tututus water supplier in Ghana, who is fetching water from water source provider, for onward delivery to the home of a community water user, who is in needs of water. This tututus supplier has his mobile phone number written on his tank, for the purpose of ensuring that anyone who may needs water would contact him. The challenges associated with this approach of contact for water supply is that when the tututus supplier is delivering water somewhere and he is unable to immediately attend to the person calling for his service directly, he losses this business for the day. Again, in an event where his mobile battery run out of power and is unable to connect and receive or answer a call, he loses the business for the day. Consequently, the requestor (ie water users) may wait endlessly due to faulty feedback mechanism or may have to seek for another tututus supplier.

4. The need for a water supply mobile phone framework (WSMF)

Grounded on the findings, the researcher proposed a (WSMF) framework to guide the distribution of

water provision in water constraint environment and assist independent water contractors and the government in their attempt to allocate resources to the most needed areas in Ghana. The WSMF is embedded in the concept of Socio economic benefits of mobile phones in developing countries. Figure 2 below indicates the WSMF. The WSMF components consist of government water supply database or repository; central or proxy server for coordination; government approved sources of water provision; home water consumer's mobile apps and Tututus water supplier mobile apps. Other third-party application such as short message services (SMS), Instant Messaging (IM), WhatsApp may also be customized for usage. Network connection are indicated with yellow links and arrow heads indicate the direction of call and feedback mechanism. System agents or human agents' intervention ("broker") may be required whenever a need for request redirection or cancellation occurs.

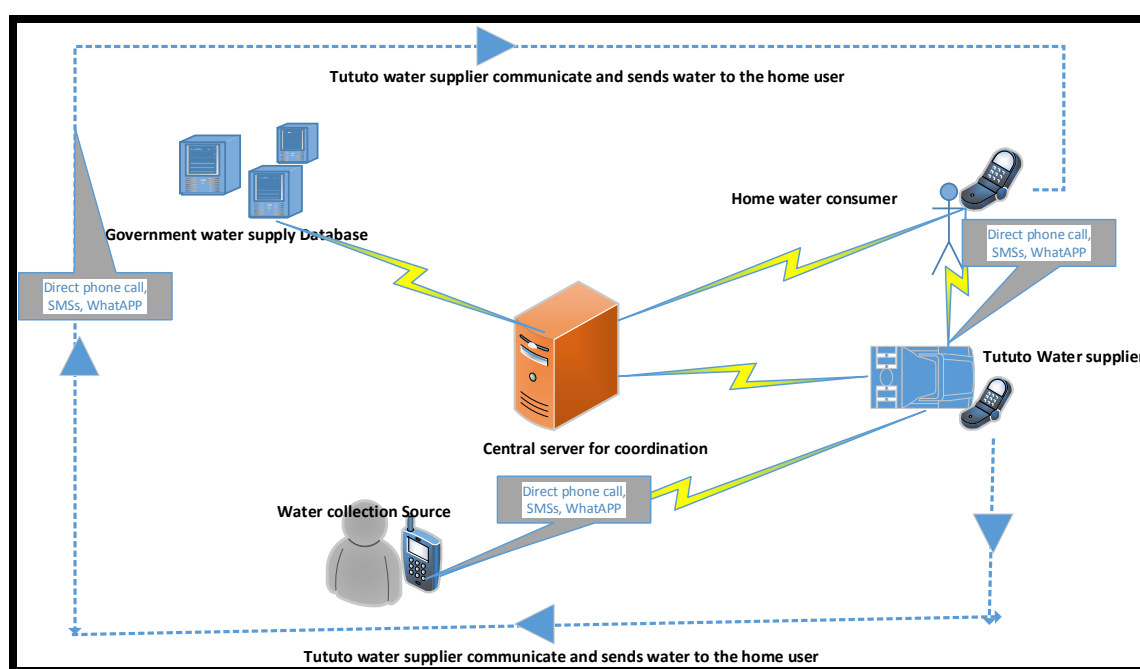


Figure 2: WSMF

The diagram above indicates how mobile phone services can be used to improve water supply in developing countries.

The water consumer who needs water at home phones the Tututus water supplier and requests for one trip of water. The price of the one trip is negotiated between the consumer and the tututus supplier. After researching consensus about the price, the tututus supplier search for where he can collect the water from and transport it to the consumer's home. The tututus supplier then text a message to the central server. This central server acts as database hub where requested water data by consumers are stored. In addition this database server stores all the information of tututus water suppliers' information and the geographical area where they are found

In other to have an effective coordination and monitoring of water services, the consumer at home must first contact the administrator of the central database to request for water supply. The administrator give the consumer a quotation of the price telephonically and upon agreement on the price, the central database administrator convoys a message to the tututus supplier to contact and provide water to the customer. The tututus supplier looks for a water source, collect some water and transports it to the consumer.

The accumulated data in the central database server is then transmitted to a government water supply database once every week. This will facilitate the measurement and monitoring of water supply interventions and enable leaders at a local level to use evidence to guide decision making for equitable and sustainable supply of water to the citizens.

Currently, there is no intermediary or water resource brokers between the tututus and the water household users. In emphasising the need for brokers, McNair (2000) states:

“The biggest UK problem in the post-school education market is neither a shortage of suppliers (there are many) nor a shortage of demand (people respond when appropriate opportunities are made available). The real problem is the absence of intermediaries to help individuals find their way through the maze of opportunities and providers, in order to match opportunity to need. Moreover, a broker is needed to identify unmet needs and provide feedback to the providers”.

The central database and central servers are hosted at ICT centres, these are premises where information and communication services are provided to the public. According to Proenza (2001), a centre offering only telephone or computer services is valid under this definition. while the inclusion of intervention such as being proposed in this paper is likely to further cause additional maintenance or commission charges. The commission charges will be minimal when compared to challenges involved in non-delivery of water for household usage in a day or week, beside the cost that may be incurred when tututus are unable to accomplish the delivery due to communication breakdown. The intervention is aimed at providing water source providers-tututus (water transportation to household)- water household users linkages. While providing the help required by the tututus shortest route to sources of water and households who are may have requested for water, in the other hand, water household users have the assurance of getting water at moderated and sustainable pricing for better planning and budgeting. Thus, the application of the system in this context, will provide a platform of creating an integrated approach to water management, resources allocation, availability and coordinated tututus, regulated pricing, monitoring of household and communities water usage.

Conclusion

Water is essential for healthy living, beside drinking and bathing, people need water for household chores; cooking, washing of cloths, plates and mopping of floors or general household sanitation. The lack of water for use in households portend grave consequences.

Drawing on the responses from the participants regarding the communication process of water supply between the independent contractors called the “tututus” and the users of water in various households in Accra, It was evident that many people in Ghana especially in Adenta suburb in Accra depend on Communal and household taps for their drinking water, while borehole water is used for washing and other cleaning purposes. While the tap water which is being dependent upon for drinking is only

accessible for few days in a week; seeking for alternative source of water by members of the community as mentioned by respondents is a necessity, hence the need to depend on the “tututus”.

The rise in mobile and smart or internet-enabled phones in Ghana notwithstanding, It was further noted that many citizens in Ghana are yet to take advantage of mobile phones potentials to effectively apply them in improving their socio-economic status and the benefits of which mobile phone application can provide in terms of water supply, coordination and distribution in Africa and Ghana in particular.

Based on the findings we proposed a (WSMF) framework to guide the distribution of water supply in water constraint environment and assist independent water contractors and government in their attempt to allocate resources to the most needed areas in Ghana. The WSMF is embedded in the concept of Socio economic benefits of mobile phones in developing countries. The frameworks will not only provide socio economic benefit to developing countries but will provide a platform for monitoring the quality of water usage, target purpose of water use by residents, in order to reduce water wastage, water borne infection and diseases in Ghana.

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EMOTIONAL INTELLIGENCE EFFECT IN HEALTH SECTOR: A LITERATURE REVIEW

Sawsan M. Aldaod¹, Rateb J. Sweis^{*2}, Afnan R. Alawneh³, Mais Jaradat⁴

Department of Business Management, The University of Jordan, Amman, Jordan.

¹Email: s.aldaod87@gmail.com

²Email: r.sweis@ju.edu.jo, rateb.sweis@gmail.com

³Email: a.alawneh@ju.edu.jo

⁴Email: maisjaradat@gmail.com

*Corresponding author

Prof. Rateb J. Sweis. Full professor, Department of Business Management, The University of Jordan, Amman, Jordan. r.sweis@ju.edu.jo, rateb.sweis@gmail.com.

Abstract:

This study aims to contribute in understanding the effect of emotional intelligence in health sector and how the service quality is affected. A review of the literature on the effect of emotional intelligence on the health sector, (82) articles and references were reviewed and the main models and dimensions of Emotional Intelligence that affect the health sector were identified. Moreover, a frame work is proposed to measure the Emotional Intelligence level of health sectors managers and self-report bias is taken into consideration. The articles review revealed that Emotional Intelligence affects the services quality at hospitals. Few studies were conducted in health sector in Jordan regarding the effect of Emotional Intelligence at workplace and quality of outcomes. The value of this study is significant for both the Private and the Public health sector who seeks to improve quality of their services.

Keywords: Emotional Intelligence, Health Sector, Performance, Service Quality, Emotional Intelligence Dimensions.

1. Background:

Some of the most significant problems facing societies nowadays are health-related, having the sensitivity of dealing with patients rather than customers and the need to provide a quality service and to maintain patient privacy require leaders with high sensitivity to recognize these very human issues. On the other hand, competition and cost drive the current market. Today's health care market challenges health care leaders to develop a collaborative ability to put varied and limited resources together to create an effective and efficient service delivery process (Nazer and Tuffaha, 2017).

The health care marketplace is rapidly changing, and patients have many choices of providers and health plans, which are greatly affected by relationships that will result in customer satisfaction and loyalty or movement to another provider (Goleman, 2004).

For health care systems to be considered successful they are required to actively respond to consumer and

regulatory pressures, to decrease costs and increase quality of the service (Mintz and Stoller, 2014). Today's health care leaders need to adopt tools and strategies that include emotional intelligence in order to implement solutions for emerging challenges (Snell and Dickson, 2011).

In a systematic review of physician's emotional intelligence and leadership, emotional intelligence has been found to be broadly endorsed as a leadership development strategy for various types of health care providers, and found to be desired and very relevant throughout medical education and practice (Mintz and Stoller, 2014).

Researchers have found that emotional intelligence is linked with many benefits in organizations, including: improved work attitudes and performance (Meisler and Vigoda, 2014), organizational commitment (Webb, 2014), conflict resolution (Joseph and Newman, 2010), and job satisfaction (Sy et al., 2006). Emotional intelligence has also been found to be linked with effective leadership; effective leaders are found to be able to understand, appraise, and manage emotions for themselves and for others in a way that enables them to communicate effectively, guide and motivate team members and thus achieve goals and have better organizational outcomes (Hughes et al., 2009).

The medical field has been dominated by leaders who demonstrate pacesetter and commanding leadership styles. These styles do not always focus on the importance of emotions and relationships, and are not viewed as positive; as these leadership styles, can undercut the morale and enthusiasm and make employees feel as if they are failing (Goleman et al., 2002; Birks and Watt, 2007). The traditional physician's culture favors independent decision-making process for problem-solving, which is based on diagnoses and presence of medical symptoms. While the physician remains the one who is ultimately responsible for patient care (McAlearney et al. 2005), this approach is found to be in direct contrast with effective leadership culture that emphasizes collective decision-making approach for problem-solving that must be systematically oriented. On the other side, health care sector continues to evolve towards an atmosphere of interdisciplinary teamwork and the impact of emotional intelligence on workplace behaviors is becoming of particular importance (Nelson et al., 2015).

In Jordan, there is a growing advancement in the health care sector during recent years, at the same time there is an increasing demand on the social services, specifically health care and education, especially after the Syrian refugees' crises, and the need for emotionally intelligent health care leaders is becoming increasingly important in order to help the health care sector to adapt to this change in demand, and to control the increasing job-related stress while maintaining a quality service (Tyczkowski et al., 2015). At the same time, the research and awareness of emotional intelligence is limited, and more research of this topic in different settings is recommended (Tannous and Matar, 2010; Mahasneh, 2013; Suifan et al., 2015; Alawneh and Sweis, 2016; Masa'deh, 2016), including health care sector (Al-Hamdan et al., 2017). The main purpose of this study is to identify the main emotional intelligence dimensions that affect the health sector and review the significant EI consequences in health sector. Thus, the following sections review some issues related to Emotional intelligence and EI in health care sectors.

2. Literature review:

2.1 Emotional Intelligence

In the last three decades, interest in emotional intelligence has widely grown. The concept of emotional intelligence was first introduced by Salovey and Mayer (1990), they described emotional intelligence as being a subset of social intelligence; which was first introduced to literature by Thorndike in 1920 and defined as “The ability to understand and manage men and women, boys and girls to act wisely in human relations” (Lam and O’Higgins, 2012, pp.150).

Salovey and Mayer’s interpretation of emotional intelligence is also supposed to be built on the base of Gardner’s (1993) multiple intelligence theory, which is also related to social intelligence. Gardner identified two types of intelligences: intrapersonal and interpersonal intelligence; intrapersonal intelligence is defined as having the capability to understand and appreciate one’s feelings, concerns and motivations, or having the ability to symbolize complex and highly individualized sets of feelings. On the other hand, interpersonal intelligence is defined as having the capability to notice and differentiate among other people’s moods, motivations and intentions (Gardner, 1993).

The notion of emotional intelligence started to be more popular after Daniel Goldman’s writings in 1995 and 1998 about emotional intelligence, and more specifically after his book (1995): *Emotional Intelligence Why It Can Matter More Than IQ*. In his writings about emotional intelligence, Goleman emphasized the importance of emotional intelligence for the success and progress of individuals and workplace, and focused on emotional intelligence as being highly connected with various job- related outcomes, including job performance (Goleman, 1998). Emotional intelligence had been also viewed as the ability to perceive and develop emotions to assist thoughts, and the ability to adjust the emotions so as to promote emotional and intellectual growth (Mishar and Bangun, 2014). The content of emotional intelligence is found to have the dimensions of distinguished understanding of one’s own emotions, emotions of others, self-control, motivation, adaptability, empathy, overcoming stress along with other personal characteristics that promote efficiency in various aspects of life (Kassymzhanova and Mun, 2013).

Many researchers attempted to define emotional intelligence, though many of the definitions are almost similar; one cannot find a simple, developed and unique definition of emotional intelligence (Lam and Higgins, 2013). For example, Salovey and Mayer (1990), defined emotional intelligence as “The ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions”(p.189). Later, Salovey et al. (2000) revised their definition of emotional intelligence to be One’s ability to perceive emotion, integrate them to facilitate thought, understand emotions and regulate emotions towards personal growth. Salovey and Mayer considered emotional intelligence as a mental ability, rather than a learned one, and their definition of emotional intelligence focused on emotions themselves and their interactions with thought (Salovey and Mayer, 1990; Salovey et al., 2000). While Goleman in 1998 defined emotional intelligence as “the capacity for recognizing our own feelings and those of others, for motivating ourselves and managing emotions well in ourselves and in our relationships”. Later on in 2004, Boyatzis and Sala combined the definition of competency by Boyatzis (1982) with the definition of emotional competency by Goleman (1998) and defined an emotional intelligence competency as “the ability to recognize, understand and use emotional information about oneself and others which leads to effective or superior performance” (p.5). A

common factor among the many definitions is the presence of inter-relational skills as well as the management of people's actions and behaviors (Lawani, 2016).

2.2 Emotional Intelligence in Health Care

The impact of emotional intelligence on workplace behaviors is becoming of particular importance (Nelson et al., 2015). Hospitals are rapidly evolving with various and increasing demands where every member of a hospital's staff has to deal, on a daily basis, with events bound with emotions, while patients' treatment and satisfaction being of the utmost importance (Trivellas et al., 2013). Emotional intelligence and trust may be factors that predict organizational performance in public health settings as well as competencies that can be identified within organizations, which is promoted through trainings managers (Tyczkowski et al., 2015). Emotional intelligence is a crucial element in the field of public health; due to the fact that it includes the practitioner's ability to communicate in a professional manner, show empathy, obtain patient compliance, and promote sustainable lifestyle changes in communities (Johnson, 2016).

Physicians' emotional intelligence has a significant influence on the care provided by the medical team; as emotional intelligence can support empathy and improve communication between team members and promote shared decision-making, conflict management, and improved transitions between care settings (Monroe and English, 2013). Physicians who are better at recognizing emotions in their patients are found to be more successful in treating them than their less sensitive colleagues (Goleman, 2011).

Emotionally intelligent nurses can improve clinical efficiency and professional readiness as adaptation to stress and adversity is considered a key for successful nurse managers (Tyczkowski et al., 2015). Nurse Educators are advised to direct some efforts towards enhancing students' conflict management skills and emotional intelligence to face the unavoidable conflicts in clinical settings; emotional intelligence is found to be highly correlated with conflict management skills of nursing students (Chan et al., 2014).

For pharmacists; emotional intelligence is found to be crucial especially with the expansion in the pharmacy profession; pharmacists are being asked to practice more efficiently within limited resource settings, while maintaining the highest level of patient safety (Hassali et al., 2017). Emotional intelligence theories are suggested to be included as useful components of pharmacy education for both students and licensed pharmacists (Higuchi et al., 2017).

The Personal and Professional Domain of the Center for the Advancement of Pharmacy Education (CAPE) (2013) as cited in Nelson et al. (2015) recommended two competences necessary for pharmacy profession nowadays, which are self-awareness and professionalism. Self-awareness enables the pharmacist to inspect and reflect personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could improve or limit personal and professional development; which is aligned with emotional intelligence component of perceiving and understanding emotions that was identified by Mayer et al. (2003). Professionalism requires that pharmacists "exhibit behaviors and values that are consistent with the trust given to the profession by patients, other health care providers, and society; this is also aligned with emotional intelligence component of managing emotions identified by Mayer et al. (2003) and (Nelson et al., 2015). Emotional intelligence has also been positively correlated with job satisfaction and adaptability of pharmacists during times of major organizational change in which job satisfaction level is

found to decline (Seymour et al., 2017).

In a conclusion, it could be hypothesized that increasing emotional intelligence of individuals who are employed in health care may lead to more effective management and better functioning teams of professionals, in addition to direct benefits for patient care (Birks and Watt, 2007).

The need for effective leadership has become crucial to meet the challenges of the 21st century with an increasing number of academics and managers have come to recognize the importance of emotional intelligence for effective leadership performance (Dulewicz and Higgs, 2003). Leaders' emotional intelligence was found to affect followers and organizational outcomes. Additionally, Emotionally intelligent leaders are found to manage their teams intelligently, handle difficult situations properly and reduce their stress effectively (Yusof et al., 2014), they would be able to communicate and develop interest to achieve the organization goals, be the guide when required (Goleman, 1988).

Emotional intelligence is found to be linked with transformational leadership style (Yusof et al., 2014). The Center for Creative Leadership (CCL, 2010) as cited in Fernandez et al. (2012) reported that the health care sector's top priority for leadership development is improving the ability to lead employees and work in teams. Due to the work experiences of the medical personnel who rise to leadership positions, they have fewer opportunities and limited examples from which to choose their leadership and repertoires of leadership styles and skills, while the command and control styles do not always focus on the importance of relationships (Goleman et al., 2004). Health care leaders often receive their primary training in clinical area, where many of the clinical decisions are made by physicians' "experts" and most often in times of emergency (Kaiser, 2009). Recent calls have been made to include training in emotional intelligence for the health care workers as a mean of improving leadership qualities, preventing burnout and stress, and improving their curricula and communication skills (Birks et al., 2009).

Professional development of public health leaders requires a form of instruction which is competency-based in order to help them to develop the abilities necessary to address the complex and evolving demands of health care systems, while emotional intelligence is a key to achieve organizational success (Czabanowska et al., 2014).

2.3 Emotional Intelligence Research in Jordan

Although Emotional Intelligence Studies are limited in Jordan, a few studies were conducted about the Emotional Intelligence in different sectors, for example Hunitie (2016), Al-Hamdan et al., (2017), Masa'deh (2016), Mahasneh (2013), Alawneh and Sweis (2016), among others.

A study that explored the relation between knowledge sharing and service quality at the Jordanian hospitals, stated that there is a strong relation between the ability of the managers at those hospitals and the medical staff social awareness that leads to knowledge sharing and how that affects the services' quality at those hospitals (Dammaj et al, 2016).

In a particular study in the healthcare sector, the correlation between nurse emotional intelligence ability and clinical performance in six large Jordanian hospitals was conducted. concluding that nurse's

emotional intelligence is highly correlated with clinical performance; the study recommended that emotional intelligence skills, as a support to clinical practice, could be considered as important competencies to teaching in nursing school in Jordan (Al-Hamdan et al., 2017).

2.4 Emotional Intelligence Models

The many definitions of emotional intelligence lead to variety of emotional intelligence conceptual models and based on each model there is a unique measuring tool for emotional intelligence, but there is no universal measure for emotional intelligence (Harms and Crede, 2010). Broadly, these models can be classified as: ability models, trait models, mixed models, and other models (McCleskey ,2014,2015).

2.4.1 Ability Models

These models examine relatively discrete mental abilities that process the emotional information. Ability models of emotional intelligence are the ones that focus exclusively on cognitive aptitudes, referring to emotional intelligence as a form of intelligence reflecting the ability to process emotional information (Caruso et al., 2002; Day and Carroll, 2004). Mayer's ability model consists of four basic abilities: emotion perception, emotion assimilation, emotion understanding, and emotion management (Mayer et al., 2004). There are other ability models which include: The Workgroup Emotional Intelligence Profile (WEIP) (Jordan et al., 2002), and the facet-level process model of emotional intelligence and job performance (Newman et al., 2010; McClekey, 2014).

2.4.2 Trait Models

These models examine emotional intelligence as a personality trait located within personality hierarchies (Petrides et al., 2007). Trait emotional intelligence models focus on our recognition of emotional abilities; that is, how good we believe we are regarding understanding, managing and expressing our emotions in order to adapt to the surrounding environment and have a good health (Andrei et al., 2016). Petrides' trait model of emotional intelligence contains four components: wellbeing, which is about self-confidence, happiness, and optimism. Sociability, which contain social competence, assertiveness and managing the feelings of others. Self-control, which is about stress management, regulation of feelings and control of impulses. And emotionality, which is related to emotional perception of self as well as others expression of emotions and empathy (Petrides et al., 2010).

2.4.3 Mixed Models

These models are also called the Emotional Social Competency (ESCs) models. The mixed models combine the ability concept with personality traits and competencies (Brackett et al., 2011). The first is the Emotional and Social Intelligence (ESI) or Bar-On Model, which is based on Bar-On definition of emotional intelligence as having the ability to be aware of, understand, and express oneself and having the ability to be aware of, understand and relate to others. In other words, it is the ability to deal with strong emotions and control one's feelings; and the ability to adapt to change and to solve problems of a personal or social nature (Bar-On, 2006). The Bar-On mixed model contains the components of

intrapersonal skills, interpersonal skills, adaptability, management of stress and the general mood (Bar-On, 2006).

Another example of mixed models is the Emotional Competence Inventory (ECI) developed by Boyatzis et al. (2000) after refining Goldman's (1998) original emotional intelligence model. Goleman (1998) described emotional intelligence as a learned competency rather than an innate talent. Goldman's first model of emotional intelligence consisted of five dimensions of emotional intelligence, which were self-awareness, self-regulation, social skills, empathy and motivation. Goleman and Boyatzis (2000) revised Goldman's first model, and the refined one consisted of four emotional intelligence dimensions which are self-awareness, self-management, social awareness and relationship management. Two dimensions are focused on the person's awareness, namely the awareness of self (self-awareness) and the awareness of others (social awareness), while the other two dimensions assess the ability to use person's self and social awareness to effectively manage self (self-management) and relationships with others (relationship management). The emotional intelligence components included in the ECI model are based on the leader's ability to recognize emotions of self and others (Cherniss and Goleman 2001). Boyatzis and Goleman model of emotional intelligence is a popular used model that includes social and emotional competencies linked with superior and effective performance in the workplace (McCleskey, 2015).

2.4.4 Emotional Competence Inventory (ECI-2) Model Dimensions

The Emotional Competence Inventory (ECI-2) model, developed by Boyatzis and Goleman (2002) in association with Hay Group. This model has become a commonly used model that is viewed to capture the full scope of emotional intelligence competences (Lam and O'Higgins, 2012, 2013) and considered the most acceptable derivative for mutual social interaction and business relationships (Danquah and Wireko, 2014). It measures emotional intelligence through both self and multi-rater instrument. Where peers, subordinates, and supervisors' ratings for the manager are required along with the self-assessment to get an accurate assessment of a manager's emotional intelligence. As each rater sees different aspects of the person, which means any one individual's ratings might be skewed (Hay Group, McClelland Center for Research and Innovation & Wolff, S. B., 2005; Vito and Taylor, 2012). it is used to measure emotional intelligence through 18 competencies, organized into four dimensions; Self-Awareness, Self-Management, Social Awareness, and Relationship Management.

Self-Awareness: involves understanding one's emotions, moods, strengths, weaknesses, drives and needs, as well as their effect on others. Self-aware leaders understand their purpose through their values and objectives, and are motivated by their dreams and goals to perform daily activities. Self-aware leaders and employees are able to work perfectly with demanding clients (Goleman, 1998; Goleman et al., 2002). Goleman (1995) and Bar-On (2006) referred to self-awareness as the most important dimension of emotional intelligence. Self-awareness dimension includes three competences; namely: self-assessment, emotional self-awareness and self-confidence. Self-assessment involves identifying and recognizing one's strengths and weaknesses. This competency is found to be shared among most successful leaders. Emotional self-awareness involves having deep recognition of one's emotions and reactions and their effects on surrounding people and on work performance. Self-confidence is naturally linked with

self-assessment and involves a strong sense of one's strengths and capabilities. Self-confident leaders challenge the required tasks and are found to be strong performers (Cherniss and Goleman 2001; Goleman et al., 2002).

Self- Management, this dimension is naturally linked with self- awareness and involves managing one's internal states, impulses and resources, and directing them in a useful way, it is also seen as the propensity to suspend judgment, or think before acting (Goleman, 1998). Employees who accurately perceive and manage their emotions and understand the perspectives and emotions of others can have better conflict management skills (Schlaerth et al., 2013). Self-management has six competencies; emotional self-control, transparency, adaptability, achievement orientation, initializing, and optimism (Goleman et al., 2002). Emotional self-control involves keeping disruptive emotions and impulses in check. Leaders need to manage their own emotions so to be able to manage other's emotions. (Goleman et al., 2002). Transparency: involves openness to others about one's feelings, beliefs, and actions. Transparency gives rise to a sense of integrity allowing leaders to be trusted. Failed relationships in business can be connected to not having the ability to build, maintain, and gain trust (Boutros et al., 2007). Adaptability involves flexibility in handling change. In an ever-changing market, leaders need to adapt to keep up with the competition and keep the commitment of the workforce (Cherniss and Goleman., 2001). Achievement is striving to improve or meet an excellence standard. This competency distinguishes superior leaders from average leaders, as it keeps them and their teams committed and going forward. Optimism is related to persistence in pursuing goals despite obstacles and setbacks. Optimistic leaders keep their teams moving on a positive track. Initializing involves readiness to act on opportunities. Initiative leaders are proactive and keep their teams moving toward the goals (Cherniss and Goleman., 2001; Goleman et al., 2002).

Social Awareness, involves being able to understand and analyze others' emotions and being aware of the outcomes of these emotions, as well as being able to determine if emotions lead to motivated reaction or response (Goleman, 1998). This skill is particularly critical for job performance when the focus is on interaction with people (Sunindijo and Zou, 2013). This deals with considering customers' feelings, especially when making decisions about product/ service packaging, and customer focused strategy implementation (Goleman, 1995). Social awareness dimension includes three elements, namely: empathy, service-orientation and organizational awareness. Empathy involves understanding the feelings and perspectives of others or being interested in their needs and concerns (Goleman and Cherniss, 2001; Sunindijo and Zou, 2013). Empathy is connected to emotional self-awareness competency because leaders should understand their own emotions before they can manage the emotions of their team members (Goleman et al., 2002). Service orientation involves identifying and focusing on customer's needs. Organizations that focus on customer's needs achieve win-win situation and outperform competitors. Organizational awareness involves being aware and focus on the organization as a whole not the individuals. Organizational awareness competency is characterized by understanding the internal networks and organizational politics (Cherniss and Goleman 2001).

Relationship Management, it is the ability to control one's emotions and reactions and influence the emotions of others to bring about desirable reactions (Cherniss and Goleman 2001; Memon et al., 2014). People tend to be very effective at managing relationships when they can understand and control their

own emotions and can empathize with the feelings of others (Goleman, 1998), in other words; the principle of emotional intelligence development is that relationship management depends on a foundation of self-management and social awareness, each of which in turn requires self-awareness (Goleman, 2001). Individuals with high social awareness understand different points of view, making them effective in their interactions with different types of people (Sunindijo and Zou, 2013). Relationship management dimension includes six competences; inspirational leadership, influence, developing others, change catalyst, conflict management, and teamwork and collaboration. Inspirational leadership involves inspiring and guiding individuals and groups to work as a team towards a common goal or shared vision. Influence involves utilizing effective tactics for persuasion. Influential leaders should execute with selfless and genuine motives in order to build trust with their teams (Goleman et al., 2002). Developing others is related to sensing others' development needs and mentoring them toward excellent performance. Leaders need to develop future leaders (Kouzes, 2003). Changing catalyst involves identifying the need for a change then removing the obstacles to allow the group to pursue the change (Cherniss and Goleman, 2001). A strong change catalyst needs other emotional competencies to be successful. These competencies include: self-confidence, initiative, inspirational and influential leadership (Cherniss et al., 2000). Conflict management involves negotiating and resolving disagreements. It is considered as an important competency as it concentrates on identifying problems before they arise and calming individuals. Teamwork and collaboration is about working with others towards common goals, and creating group synergies in order to pursue collective goals. The collaboration competency needs good communication skills in order to share information in a perfect and correct way. Collaboration is important because it ensures that the whole team is moving in the same direction towards the same goal (Goleman et al., 2002).

2.4.4 Self-report bias on Emotional Intelligence

Self and social reporting have gained significance focus in literature, especially in the fields concerning the psychological aspects and personalities, measuring and validating such aspects is considered a challenge, many researchers have found methods and scales to validate these reports especially the self-report to get results with the most minimum bias. In rating behaviors, the 360° feedback shows the difference between the self-rating and observers' rating. This is also known as multi-source feedback, such feedback methodologies are significant in validating the measurement of behavior and psychological aspects in research, (Passini & Norman, 1966; Connolly et al., 2007; Bollich et al., 2011; Stolarova et al., 2014).

Various studies showed evidence of bias regarding measuring and estimating EI, in terms of self-rating vs. others' rating. There are many factors and issues that may affect the difference in rating. Some studies suggested that managers tend to rate themselves positively and the overall rating is different when those managers are rated by others (Petrides and Furnham, 2000; Furnham et al., 2014).

Same doubts question to what extent can a self-report be accredited and valid when measuring Emotional Intelligence. The bias in measuring Emotional Intelligence when a person is asked to report his/ her level of EI (Zeidner et al. 2004). On the other hand, few researches agree that EI is better measured using such

methodology (Self-Report), since emotions are considered a personal and private issue, that can be expressed better by the person who is being rated (Connolly et al., 2007., Watson & Clark, 1991).

3. Methodology:

The objective of this paper is to identify the emotional intelligence effect on the quality of service in health sector. For this purpose, (82) published articles and websites were reviewed for identifying the dimensions of EI that affect the health sector services.

The following framework (Figure 1), clarifies the variables used for measuring the emotional intelligence of managers in public and private hospitals. Moreover, the self-report bias for the part (When needed) that the managers will answer about their emotional intelligence level. According to the model of Goleman (2013), these dimensions were found to be the most influential dimensions in health sector.



Figure 1: proposed framework

4. Conclusion and Recommendations:

The services' quality at hospitals whether private or public, is affected by the level of emotional intelligence of their managers. This literature review investigated and explored several articles related to emotional intelligence in health sector, the results of those study showed how does EI affects the services' quality at hospitals.

This study will contribute to the body of knowledge in its field. Moreover, it will state a proposed framework as a base for future studies in this field, based on Goleman's model in EI. The findings shall be taken in to considerations to enhance the activities and practices at the hospitals either public or private to improve the services quality and outcomes of those institutes.

Based on the literature, this study recommends conducting a quantitative research using the framework stated in this study and results shall be clarified and implemented in the real life to enhance and improve the health care sector, especially hospitals.

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EFFECTIVE MANAGEMENT IN DISTRICT COURT RECORD

SCANNING & DIGITIZATION

Sanjay Rambhau Salkute

Mumbai (Maharashtra-India)

sanjaysalkute@gmail.com

Abstract:

The court organization needs to preserve the court case records. The period to preserve the district court record is governed under The Destruction of Record Act and Handbooks approved by the High Court. Currently it follows a paper based system.

The Chapter 6 of e-courts system provides a plan for the scanning, digitization and preservation of Case Record. Under e-courts system, an online case filing is initiated. Until the complete adoption of paperless technology, as per e-courts system, the current paper based system will be continued to preserve the court record.

The objective of this study is to discuss the pre-planning for scanning and digitization by the district courts. It also throws some light on the preliminary concepts in long-term preservation of digitized record.

Only digitization is not sufficient to preserve the court record forever. Due to the continuous changes in digital technology, it is necessary to adapt these changes in the digitized court record.

To ensure authenticity and long term accessibility and preservation of the digitized record, a process of a data migration of digitized court record is one of the solution. An effective court management system is necessary for managing the digitized court records.

Keywords: Court Management, e-courts system, court record, preservation of record, court case record management.

1. Introduction :

In the 17th century a spiritual poet of Maharashtra, *Shree Samarth Ramdas Swami*, in his '*Dasbodha*' at *19th Dathsk- Lekhankriyanirupan* has explained, '*The Art of writing*' as :-

" Even if the paper is deteriorated, the words written on paper should be preserved. The book should be bound in the best possible manner to preserve it. All precautions should be taken to keep the book in its original form."

A scanning is a process to convert a paper image into a digital image. A scanner is a device used for scanning a paper document or text.¹ Digitization is a process of converting any information / record / Image like a Scanned Images, Text Images, Audio, Video recording in a digital format. The scanning and digitization means a

¹http://www.scan2docx.com/en_US/blog/what-is-a-document-scanner/

process where a document¹ is converted from print (hard copy) to a computer-readable format (soft copy).²

While digitizing the record, it is necessary to preserve a meta-data. Meta Data³ is an important component of a digital file that exists alongside the content (usually binary data) within the file, making the digital file self-describing.

Need of Action Plan:

An action plan is required for management of scanning and digitization process⁴ work that involves a relatively large number of documents.

Some material steps for an action plan are as follows:-

Planning :- Following are the important points :-

- a) A physical verification of [characteristics of] the original record / documents (which will be digitized);
- b) A preservation period of the digitized record;
- c) A needful policy for the accessibility, security, migration, disposition and recovery of wrongly destructed digitized record;
- d) A compliance of legal laws, Rules, Notifications, Gazette, ISO [International Organization for Standardization⁵] etc.
- e) An action plan for effective management.

Strategy :- While formulating a strategy to preserve the digital record, it is necessary to consider the following points:

- a) It shall be to reduce risk;
- b) It shall cover data integrity, file format ,media sustainability and information security;
- c) It shall cover the best practices to preserve it and provisions for access , archival and retrieval;
- d) It shall include review priorities, regular assessment of the formats, ongoing management and access through a trusted digital repository⁶, trustworthiness of record, preservation of meta data¹ , meta data

¹Document means a document as defined in Indian Evidence Act and Indian Penal Code.

² http://library.harvard.edu/sites/default/files/GuidelinesForScanningUniversityrecord_0.pdf

³ https://www.wisconsinhistory.org/pdfs/la/Digitization-State/5_Metadata.pdf and <http://www.digitizationguidelines.gov/term.php?term=metadataembedded>

⁴

<https://www.google.co.in/url?sa=t&rct=j&q=&esrc=s&source=web&cd=161&ved=0ahUKEwi45tfI5ajaAhUJp48KHVLGBOI4oAEQFggIMAA&url=http%3A%2F%2Fwww.rimpa.com.au%2Fassets%2F2012%2F07%2FDigitisation-Plan-Template-Post-Action-Conversion.doc&usg=AOvVaw1aID2ftJPozO0Gs5iN8OqE> and <https://www.parliament.uk/documents/upload/digitisation-guidelines.pdf>

⁵ <https://www.iso.org/home.html>

⁶ Trusted Digital Repositories (TDR) for Courts will be highly necessary which may be considered for implementation in Phase II along

management;

e) It shall cover the required hardware, software, storage, network capacity, management of cluster / Nodes, active file management, process to regularly review and update systems and tools, replication of data, forensic identification tools, file format identification, format validation, technical meta data extraction, file format transformations (migrations), inventory of incoming files and its log results, checking incoming files, performing an annual audit, repair and / or replace files with fixity issues, performing quarterly audits of logs, migration of record (at-least after 5 years) onto tested and verified new electronic media, characterize and validate file formats, creation of File Format action Plans, creation of normalized versions of files, analyzing file formats and media formats, performing automated and manual format migrations or other preservation activities, monitoring the larger preservation record and its technological environment for signs that formats, perform a scheduled review of individuals and groups who will have to read, write, and execute an authorization to folders and files on servers and maintain a system for record logs of actions on files, including deletions, recovery of wrongly deleted record and preservation actions etc.²

The general stages for Scanning³ (Physical document) to digitization of Record⁴ are :-

- a) Document collection;
- b) Analyze documents, sort by type, category and cleaning process etc ;
- c) Document scanning;
- d) Conversion of scanned documents / image⁵ and reproduced into agreed output format;
- e) Quality control;
- f) To keep the original document in a safe place;
- g) Uploading a data of a scanned image and its Meta data into DMS {document Management system -Software};
- h) Uploading a digitized record from DMS record into the Storage Media / repository system;
- i) To provide access to the user through Intranet, Internet, Web(cloud) etc.

with the Scanning and Digitization activity. M. Kalaivani Vs N. Balakrishnan, Chennai (Madras) High Court ,CRP (NPD) Nos. 2729 & 2730 of 2014 and M.P. Nos. 1 & 1 of 2014 <https://vlex.in/vid/m-kalaivani-vs-n-545853950> and <https://www.casemine.com/judgement/in/56e66a19607dba6b53435bab>

¹ In the entire process the accessibility a meta data is an important aspect. The meta data should be complete and accurate, accessible, conformance to best practices.

²<https://www.archives.gov/preservation/electronic-record.html>

³ <http://www.libraryconnection.info/pdfs/digitization123Aug2009.pdf>

⁴ Guidelines for Digitization projects for collections and holdings in the public domain, particularly those held by libraries and archives, <https://www.ifla.org/files/assets/preservation-and-conservation/publications/digitization-projects-guidelines.pdf>

⁵ http://www.archives.nysed.gov/common/archives/files/mr_erecord_imgguides.pdf and <https://azlibrary.gov/sites/default/files/arm-minimum-standards-for-digital-imaging-or-scanning-textual-documents-2014-06-18.pdf> and <http://sos.ri.gov/assets/downloads/documents/rules-and-regulations-for-the-making-and-management-of-imaged-public-record.pdf> and https://www.lva.virginia.gov/agencies/record/electronic/digital_imaging.pdf

2. Study for District Court record:-

The Bombay High Court has framed in Civil Manual and Criminal Manual for the preparation, maintenance, preservation and destruction of district court paper based records. It covers the size of paper document that is to be used in pleadings [Artefact]¹. It's a comprehensive handbook.² The district courts have to maintain the case record, as per the guideline provided by the High court.

The distinction between paper based record room and digitized record system can be summarized as:-[Table-1]

Paper base Record Room	Digital Record System
Preparation of Record	Scanning, Indexing/Meta-data
Arrangement of case record	Document Management System, Indexing, bookmarking.
Precautions should be taken to see that the record are not destroyed by white ants, insects etc	Data security, recovery of wrongly destroyed record [Reconstruction of file].
Inspection	Audit/data migration/storage media change etc.
Destruction of record	Archival of digitized
Record Room	Repository System, SAN/NAS / Storage Media
To arrange record in cub board etc	Document Management System
To prepare a map for record room to search the record	Archival / Retrieval/ Search/ Access.
Standards and Guidelines as per Destruction of Record, Acts, Rules and Civil Manual / Criminal Manual.	Guidelines framed by Ministry of Information India and other relevant Act, Rules, Notifications, ISO etc.

[Table-1]

3. E-court system : Under chapter 6 of the e-courts system phase II, has explained a planning for Scanning, Digitization and Digital Preservation of Case Record³ for pending case record as well as the disposed of the case record. The provisions like an output format of the files e-signature⁴ etc., customization of FOSS DMS, OAIS (Open Archival Information System) framework are also discussed. It is stated that, "During this process, the established Centre of Excellence for Digital preservation under the aegis of the Center for Development of

¹ Artefact means the documents, periodicals, books, Judgments, orders, administrative record, notifications, amendments pasted on paper / paper slips, all types of papers etc. in whichever form that make up the archival material at the District and subordinate courts.

² <http://court.mah.nic.in/courtweb/civil/html/chapter27.html> and <http://court.mah.nic.in/courtweb/criminal/html/chapter20.html>

³ CHAPTER 6 SCANNING, DIGITIZATION AND DIGITAL PRESERVATION OF CASE record, http://supremecourtindia.nic.in/pdf/ecommittee/PolicyActionPlanDocument-PhaseII-approved-08012014-indexed_Sign.pdf

⁴ It is necessary to define a E-signature standards Rules.

Advanced Computing (CDAC) by DeitY shall be followed". A trusted digital repository [TDRs] as developed by CDAC is also suggested.

The Minutes of Meeting of the E-committee on 21st March 2017 has pointed out a usability of the customized version of Dspace software, protocol that defines standards for digital preservation of electronic documents, service delivery, audit, re-migration and strategies for digital preservation.

A Best Practices & Guidelines for Production of Preservable e-record (PRoPeR), eGov.DP.01-01 Version: 1.0 December, 2013¹ are also available.

In the 14th Finance Commission², the formula for required fund for the scanning and digitization of the court record is explained. It is also discussed that, data storage 235 to 240 MB [Average] may require for a pending case for the digitization of paper documents. It can be summarized as :-[Table-2]

The cost for scanning, digitization, DMS and Digital preservation	Rs.0.70
Storage @ 10 Kb per page	Rs.0.30

[Table-2]

The entire plan explained by the e-courts system for the Scanning, Digitization and Digital Preservation of Case Record is based on legal compliance of the provisions of various Notifications, Guidelines, including the Information Technology Act and Document Digitization (Scanning) Standards, ISO etc.³ From the directions given in the e-courts system phase II plan and 14th Finance Commission, it clearly indicates that, the objective of scanning and digitization is to preserve the digitized record, maintain the authenticity, integrity, reliability and extend the usability by protecting it from technology obsolescence, media failure, physical loss etc.

A digital record would be less vulnerable than paper, because with a little loss of data on it can be copied for millions of times. If the paper documents/ court record are digitized then the risks of its inaccessibility and un-usability can be considered. After the digitization of the record a court is required to continue a process of surveys, audit etc. to eliminate or mitigate the risks associated with technology obsolescence and media fragility etc.⁴s

¹

<http://egovstandards.gov.in/sites/default/files/Best%20Practices%20and%20Guidelines%20for%20Production%20of%20Preservable%20e-record%20Ver1.0.pdf>

²

<http://doj.gov.in/sites/default/files/Memo-Justice-Sector.pdf>

and

http://doj.gov.in/sites/default/files/Proposal-14th-Finance-Commission_0.pdf

³Above list for Compliance is not exhaustive, the compliance ratio may change as per changes in technology.

⁴ The phenomenon of obsolescence of technology mainly hinders archival and preservation in terms of three aspects which are (i) Technology of the storage media, (ii) the software used to access the soft copy of the data and (iii) Type (format) of file in which the soft copy is saved in digital form. OAIS (Open Archival Information System) framework provides methodology of software solutions for digital preservation which provides continued access to digital materials for as long as necessary, involving the planning, resource allocation, and application of preservation methods and technologies to ensure that digital information of continuing value remains accessible and usable. It combines policies, strategies and actions to ensure access to reformatted and born digital content regardless of the challenges of media failure and technological change. The goal of digital preservation through OAIS is the accurate rendering of authenticated content over time. The ultimate benefit of scanning and digitization could be achieved when the need of preserving the physical case record is eliminated by means

Therefore , the process of digitization of court record can be summarized as :-

1. e-record creation;
2. e-record capturing;
3. e-record keeping;
4. e-record transfer to designated trusted digital repository¹;
5. e-record preservation.

4. Expected plan for scanning and digitization of record :

Main stages are Scanning, Digitizing, Preservation and Destruction. It can be summarily described as:

1. Identifying documents for digitization.{Survey for number of pages per case record}
2. Preparing files {Providing the case record for the scanning and digitization}.
3. Scanning & Digitization.

The document scanning process contains:

- a. Collection a document;
- b. Preparation of document for scanning (ex. Remove staples etc);
- c. Document Scanning procedure;
- d. Quality Control / Checking

Digitization of scanned document :-

- e. Indexing (to access at a later date via a document Management system (DMS)), bookmarking, hyper-linking, Transition into digital modes, Digital formats;
- f. Quality control (verification against the database).

Providing access for the digitized record:-

- g. *Delivery / Upload:* Deliver back to DVD or upload into cloud hosted system or into database;
- h. Provisions for archival and retrieval.
- i. *Shredding and Recycling:* Return the paper or recycled it.

Digitized Record Storage maintenance:

- j. Preservation² / Audit/ Destruction of digitized Record.

which offer reliable and established methods of Long Term Digital Preservation. Courts being one of the institutions with enormous record in physical form, Trusted Digital Repositories (TDR) for Courts will be highly necessary which may be considered for implementation in Phase II along with the Scanning and Digitization activity .CHAPTER 6 SCANNING, DIGITIZATION AND DIGITAL PRESERVATION OF CASE record, http://supremecourtindia.nic.in/pdf/ecommittee/PolicyActionPlanDocument-PhaseII-approved-08012014-indexed_Sign.pdf

¹ Open source digital library software can be customized or extend its capabilities as per the requirements of e-courts.

² Digital Preservation is an active, long-term commitment. The issues involved in digital preservation are extensive. Technology advancement, digital decay, data integrity and storage, and economic sustainability all come into

k. Digitized Record Management¹.

Work flow of DMS [Document Management System Software] Management ²:

1. To allow accessibility to functions based on the user credentials.
2. Flexibility in creating a master data.
3. To update a case Registration Number, CNR Number, Case Number, Case Type at various stages of the case.
4. Adding additional files , documents at a various stages of the case.
5. Allocation of cases to court and cause list preparation / scheduling.
6. A calendar Management (judges diary / Memorandum) at each stage of the case.
7. Generate case history.
8. To attach a common hearing cases (group cases scheduling).

5. Elements of Action Plan : The following are material points:-

1. Feasibility of the work;
2. Human Resources Planning ;
3. Managerial Planning and implementation of Plan.

Pre- planning for a preparation of Action Plan³

- 1] A content strategy [to identify opportunities, strengths, gaps and areas of expertise] , Identifying and prioritizing projects;
- 2] To conduct a survey of recommendations about best/common practice for evaluation⁴;
- 3] To define and develop a discovery mechanism;
- 4] To carry out research and to find out the future requirements;
- 5] To carry out research and develop end-user policies ;
- 6] To carry out research and develop best practices for infrastructure;
- 7] To carry out research and communicate best practices for file formats for access and preservation;
- 8] To recommend policies and best practices for clearly identifying the copyright status of digitized works;

play.<http://cbec.gov.in/resources/htdocs-cbec/gst/cgst-rules-01july2017%20.pdf>

¹ Electronic record management, Long term archival and preservation, Digital repository development, Controlled access to digital resources , Digitalaya (Electronic record management and Archival System) by CDAC

²The above list is not exhaustive.

³<https://nhds.ca/contact/>

⁴ An Evaluation based on the Digital Library user: An Experience with Greenstone
<https://www.sciencedirect.com/science/article/pii/S1877042813003303?via%3Dihub> and A review of quality evaluation of digital libraries based on users' <http://journals.sagepub.com/doi/pdf/10.1177/0165551512438359> ,
http://wiredspace.wits.ac.za/xmlui/bitstream/handle/10539/20509/Digitizing%20Egyptian%20National%20Documents%20Archive_FINAL.pdf?sequence=1&isAllowed=y

- 9] To define an operating model;
- 10] To create best practices and tools;
- 11] To develop a communications plan.

Illustration : Action Plan :

Phase-I (Year 1):

- A survey of artefact (nature and volume of court record is to be digitized).
- Formation of Division or Zone to cover entire district courts. The digital record management strategy for public record, non-public record, public accountability, schedule for retention of record and record disposal plan¹.
- To decide a Meta data², retention period of digitized record, unique identification code, history of meta data, preservation of history of meta data. To define a scope of the Image pixel, resolution, compression, file format. File name, file path, file address, common file names, and protocols. To decide a file format types (proprietary / non-proprietary), preservation, and compression.
- A work flow DMS (Document Management System) and its integration with CIS (case Information System), security control, version control, meta data capture method of DMS, free text search, hypertext links, automatic file format conversion etc. conversion of file format, migration of data, media for long term preservation.
- The preliminary budget for the action plan with storage, storage facility components, Magnetic, optical and other storage facilities and its procedure to procure.
- A Pilot project plan.
- Policy to customize DMS software based on Dspace (or any other repository system).
- Integration of developed DMS system with CIS (Case information Software).

Phase-II (Year 2) :

- Implementation of plan as per Zone or Divisions.
- Purchase of server for the courts covered in a Zone or Division
- Purchase of additional storage space at Data Center
- Purchase of SAN/NAS
- Purchase of Cloud space (additional).

Phase-III (Year 3):

¹Record management includes classification and retention plans, risks associated with record management, analysis of record management, Performance measures (assessment to determine effectiveness in managing the information), the ability of the system to meet record management requirements, audit trail analysis, record management performance measure standards, record retention rules, taking backup of record as per policy] .

² Metadata classification: Case specific Metadata: Case history, FIR No., Technical Meta data: file type, encoding, Provenance Meta data: Origin, reference, Manifest Metadata: Folder Structure, Digital preservation of Court's record through OAI (ISO 14721) framework, e-goshwara by CDAC

- To Purchase additional storage space for Data Center/ SAN/NAS/Cloud.

Necessary compliance is:-

- 1] Digitization of court record Rules;
- 2] Define project and limits of the record collection;
- 4]Guidelines for Managing scanning and digitization plan;
- 5]Guidelines for court business requirements and legislative requirement / compliance to preserve the record.

Check Points for implementing action plan-

1] A Period of preservation of digitized files shall be as per the provisions contained Civil Manual or Criminal Manual or as described in any Act, Law etc.

2] A procedure for descriptive Meta data feeding or extraction of meta data. The descriptive metadata shall be useful to search the desired record through all parameters.

3] The Method to insert amendment (inserting paragraph / page or deleting paragraph or page) in the pleadings shall be made. The amended scanned page shall be replaced with old scanned page. The old scanned page shall be made available with the same document with bookmarks.

A policy shall be made for the digitization of the case record wherein a common judgment is / was delivered . The judgment signed by the judge shall be digitized and its image shall be tagged with the record of the concerned cases. Do not scan the copies of judgment kept in concerned cases.

A Policy to seal the digitized document shall be made. The sealed document must be securely filed and it shall be kept separately from access files.

4] A Provisions for insertion of digital document (Audio / Video files) shall be made wherein there shall be a provision to fetch the hash key value and Properties ('**General Properties**', 'security', 'details', 'previous versions', 'statistics') of such received Audio / Video files.

5] A sub-plan for Scanning and digitization of Cases for a specific case type shall be made.

6] A policy for descriptive meta data obfuscation / Masking Policy to the PDF file shall be made.

7] Training curriculum & Technical Manual shall be made for stakeholders.

8] Data base structure and required / availability of cluster structure shall be made.

9] Hardware and Net connectivity plan shall be made.

10] A plan for Security measures at the digitization center shall be made.

11] The digitized documents shall be arranged as per the guidelines provided by the High Court.

An Indexing, hyper-linking and bookmarking policy shall be framed wherein guidelines shall be provided to Index, bookmarking, sub-bookmarking, hyper-linking the scanned images. The Index shall show chronologically arranged pages with case record. The bookmarks shall be arranged by Type of document, type of court business process etc.

Example: Four types of files shall be preserved : (a) The original Scanned Image File (b) Consolidated Image File (c) Clean copy file (d) PDF file. The process for Indexing (all meta data), bookmarking and

sub-bookmarking shall be done for all documents. Each Image shall contain all meta-data, Index and bookmarks, sub-bookmarking. The actual list label shall be bookmarked. Page count for each document and Exhibit Numbers shall be recorded in each file.

(a) Original Scanned Image File : In case a genuineness of a digitized document is challenged , then the original Image can be used to prove that, the original image was never tampered. Only the admin/super user shall have access to the original scanned Image.

(b) Consolidated Image : A consolidated file shall be preserved as a disaster management . Only the admin shall have access to such file.

(c) Clean Copy : It is for the use of the court employees / Judicial Officer. If clean copy gets corrupted, then it can be regenerated with the help of a consolidated Image.

(d)PDF file : The Public shall have access only to a PDF copy. The policy of masking etc shall be implemented over the PDF file. If PDF copy gets corrupted, then it can be regenerated with the help of a consolidated Image or clan Copy.

Illustration :

Insertion / deletion of a new page : If a new page/ document is required to insert in the existing digitized record, then image of new page shall be automatically saved in the concerned folders in the relevant files/Index place i.e. original Image Folder, Clear File folder, PDF folder and Consolidated File Folder.

Insertion / deletion a portion in Paragraph of the page: If the pleading is amended , then the image of the amended portion shall be replaced with old scanned portion. The old scanned portion shall be made available with the same document with bookmarks. There shall be a separate bookmark to the amended portion of the pleadings. The same logic is applicable to the deletion of a portion from the pleadings.

Exhibit Number Marking: Each document shall contain exhibit number. All exhibited documents shall be bookmarked.

Changes within the image / page may be due to marking as an Exhibit Numbers, Portion Marks, then such Exhibit number or portion mark shall be saved. If an exhibited portion mark is within a page/ document, then it shall be separately bookmarked. If the bookmark page itself contains Exhibit Number to a portion mark, then there shall be sub-bookmark.

12] A provisions for generation of CNR¹ Number/Unique Number for the disposed of cases

[which were not generated in CIS] shall be made.

13] The User Acceptance Criteria for shall be made.

14] Post Implementation Plan shall be made.

15] Disaster Management Plan shall be made.

16] Technical Specifications of Scanned Image shall be clear.

17]Mandatory specifications of required PDF / A File format shall be clear.

18] Folder System and data base structure shall be clear.

19] A provisions for testing the developed Software shall be made.

¹ https://services.ecourts.gov.in/ecourtindia_v6/

- 20] Hardware Installation Set up at Court Complex/Digitization center plan shall be made.
- 21] A plan for meta data extraction from E-Filing / Online Filing shall be made.
- 22] Duties of Vendor and internal stakeholder shall be clear.
- 23] Monitoring system plan shall be made.
- 24] Plan for Service Level Requirements and related penalties for default shall be made.
- 25] Quality Assurance implementation plan shall be made.
- 26] Automation of court business process by digitizing information.
- 26] Policy to comply the Legal Compliance shall be made.

6. Execution of action plan :

The court can execute the scanning & digitization plan through its own resources or may adopt the process of outsourcing . The advantage of in-house project is that, there would be a complete control over imaging functions, security, proper handling of files etc. There are advantages-disadvantages in outsourcing and in-house method ¹.

Such a work requires start-up training, ongoing training, heavy scanners, hardware etc. therefore a process of outsourcing is the one of the remedy. For executing such a plan, many private agencies / outsourcing agencies are available, including a Government agencies like CDAC, DIP by Ministry of Information and IIIT.

While appointing the outsource agency , it is necessary to evaluate:

1. Functionality of software and pre-qualification criteria of the software;
2. Project Approach, Methodology and Innovativeness;
3. Equipments to be installed;
4. Work-plan and project management strategy;
5. Expert Team;
6. Resource Plan.

Following points shall be included in the Tender document:- The applicable Rules , Guidelines, plans for digital preservation, Meta data standards, File Formats, data migration, migration to cloud, policies, documentaries, Activity Plan²,Image Specification³,Processing , Management Plan⁴ for Source record, workflow (Planning, capture, Primary quality control, Editing, secondary quality control, storage and management), Management Plan for Digitized record, Quality Control and Assurance Plan⁵,Strategy for Digitizing Archival Materials for Public

¹<https://www.datastorageinc.com/blog/bid/26755/imaging-in-house-versus-outsourcing>

²<http://mams.rmit.edu.au/dvowqfmiwiao.pdf>

³<https://www.uis.edu/informationtechnologyservices/wp-content/uploads/sites/106/2013/04/ScanningImage.pdf>

⁴

<https://www.google.co.in/search?q=scanning+and+digitization+plan+court+documents&client=firefox-b&dc=0&ei=DCzKWqalBcqAvQTlnJsgDw&start=20&sa=N&biw=1301&bih=670>

⁵ <http://www.sustainableheritagenetwork.org/system/files/atoms/file/GuidetoQualityControlandQualityChecklists.pdf>

Access, Information Management Standard etc.

For better transparency, fair competition to offer equivalent or better services, following material points shall be included in a tender document:-

A minimum requirements of technical specifications, font, format, folder, database structure, legal compliance, effective data migration strategy / Data Migration Project Checklist/data migration methodology, long-term repository migration, planning a cloud migration, analyze Information Risks that can occur during Migration with a proven data migration methodology, data security plan, network planning strategies, digital storage infrastructure/server planning, designing and implementations, guidelines for court managers Planning and Implementing Digitization Projects(if necessary), human resource management/qualified employees, digital information management plan etc.

Discussion:-

Currently the stakeholders can access the paper based court record. After scanning and digitization of the court record online access will be provided. Therefore, the digitized records will be integrated with the court case management software.

A detailed action plan is required to undergo digital transformation in a sustainable and resilient manner. During the execution of action plan a focus should be on scanning software, Document Management, Record Management¹, testing, record management functionality and control. A focus is also required to procure hardware and software as per the stages of the action plan.

Scanning and digitization involves a relatively large number of documents / decided and pending court records. Such a work may require an advanced machinery and professional personnel to complete the complex scanning job and its digitization process, hence it is better to appoint executing (outsourcing) good agency on turnkey² till the completion of arrears work. Thereafter, the court may continue the same process as per ratio of fresh cases filing.

The outsourcing agency should possess sufficient experience in similar nature³ of work and must have profound demonstrable experience and expertise in identifying system requirements in court technology⁴. The major part of the project will be the development of software, to apply proper technology [digitization],

¹ Document management involves the day-to-day capture, storage, modification and sharing of physical and/or digital files within an organization. record management establishes policies and standards for maintaining diverse types of record. Some, but not all, documents within an organization become record. The goal of document management is efficiency. The goal of record management is compliance. The information of document management is comprised of transient content. The information of record management is comprised of historical content. The methodology of document management is content-driven. The methodology of record management is context-driven. <https://www.laserfiche.com/ecmblog/whats-the-difference-between-document-and-record-management/>

² http://projekter.aau.dk/projekter/files/225265912/Master_Thesis_Project_Managers_work_in_Turnkey_Contracts.pdf

³ similar Nature means Digitization of record (Scanning, Indexing, Meta Data Entry) and management of Digitized record through computerized Document Management System.

⁴ <https://static.legalsolutions.thomsonreuters.com/index/pdf/lessons-learned-in-courts-digitisation-whitepaper.pdf>

scanning and paper handling. The agency must be able to give support till the post implementation period , therefore, it is necessary to evaluate the road-map and business model developed offered by such outsourcing agency. A strict condition shall be included that the agency shall not be allowed to sub-contract of any part of the plan.

While implementing¹ a digitization plan, executing agency need to ensure to meet requirements of the courts and the legal requirement to preserve the record. The courts may modify the process, policies, guidelines etc. but it is equally necessary to make a plan for compliance and performance monitoring of such agency. There should be coordination between court's implementation plan and Vendor's implementation process. Pilot project may give confidence in achieving a desired output.

7. Conclusions: A digital library covered all kinds of library resources which can be accessed in digital format. However, the court's repository shall cover whatever recorded data or information produced in the court processes. Therefore, open and full text access to digital content , long-term preservation and access are the most important required characteristics of the court's repository system. Though the trusted digital repositories ensure authenticity and long term accessibility , but due to changes in digital technology, the migration of digitized court record is the solution to preserve the data perpetually. The preservation coupled with improving accessibility and availability which can be achieved by digital storage and an efficient retrieval and management system is the need of the hour. It is also necessary to consider the international best practices in digital court record management.

The Hon'ble e-courts committee has already issued guidelines for use, preservation and dissemination of certain document with a view to maintaining its confidentiality. A successful implementation of the e-courts system plan is based on the strategic plan of the district courts. Therefore, for implementing the scanning and digitization plan, an effective court management is necessary to protect citizens' rights and ensures accountability.

Recommendations:

- 1] To make a necessary amendments in the civil and criminal manual / Handbook.
- 2] To frame a Digitization Of record Rules² and cover the record management [document retention and archiving on Record-keeping,] protocol for preservation / destruction and re- production of digital record.
- 2] Digitization Procedures Manual Guide.³
- 3] Formulation of standard record preservation policy⁴, and provision of storage facilities including

¹ Implementing Technology in the Justice Sector: A Canadian Perspective ,<https://ojs.library.dal.ca/CJLT/article/download/5999/5333>

² <http://highcourtofsikkim.nic.in/drupal/sites/default/files/rules/hcs%20digitization%20of%20record%20rules%20ntfcn.pdf> and <http://govtpressmp.nic.in/pdf/part-4/2017-06-23-25.pdf>

³ It should be finalized within 60 business days of each project's commencement ,<http://imtdocs.alberta.ca/Procedures Manual - Guide Aug2016.pdf>

⁴ *PRESERVATION AND DIGITISATION* :principles, practice and policies <https://www.bl.uk/aboutus/stratpolprog/collectioncare/publications/conference/conf1996.pdf>

electronic storage devices.¹

4] Guidelines for outsourcing the project.²

5] Rules for Destruction of Record.³

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¹ Management and Utilisation of Judicial record in Federal High Courts in Northwestern States of Nigeria

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²

https://government.archives.sa.gov.au/sites/default/files/20120124%20Digitisation%20of%20official%20record%20and%20managemen%20of%20source%20documents%20Final%20V3.1_Copy.pdf and

<https://www.record.nsw.gov.au/recordkeeping/advice/managing-digitisation-programs-and-projects>

³

source information to be destroyed, <https://record.archives.govt.nz/assets/Guidance-new-standard/17-G13-Destruction-of-source-information-after-digitisation.pdf>

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DETERMINANTS OF LIFE INSURANCE CONSUMPTION IN EMERGING INSURANCE MARKETS OF SOUTH-ASIA

Weedige Sampath Sanjeewa¹, Ouyang Hongbing^{2*} and Shujahat Haider Hashmi³

¹ PhD Research Scholar, Department of Finance, School of Economics, Huazhong University of Science and Technology, PR China. Email: sanjeewa@wyb.ac.lk

² Professor, Department of Finance, School of Economics, Huazhong University of Science and Technology, PR China. *Corresponding Author - Email: ouyanghb@126.com

³ PhD Research Scholar, School of Economics, Huazhong University of Science and Technology, PR China. Email: shujahat_hashmi@hotmail.com

Abstract

This paper investigates the determinants of life insurance consumption in emerging insurance markets of South Asian from 1996 to 2017. We use two measures of life insurance demand: life insurance density and life insurance penetration. The results suggest that consumption of life insurance better explained by demographic factors than financial factors in South Asia. While we find an increase in income, urbanisation, life expectancy, dependency, and private health expenditure lead to a decline in life insurance demand, education and financial development are found to impact on life insurance consumption in the region positively. Overall, households in this region are more likely to evaluate the anticipated benefits of life insurance in terms of derived benefits conditional to the income earner's death as well as the risk of the income earner's permanent disabilities. The findings provide policy implications for the development of life insurance markets in South Asia.

Keywords: life insurance demand; insurance density; insurance penetration; South Asia, Emerging Insurance Market

Introduction

A country can theoretically accelerate beyond the steady state of the economy by promoting the industries that generate positive externalities for the rest of the economy (Mankiw 2009). Among others, the insurance industry generates positive externalities through risk transferring, financial intermediation, and employment. In addition to the economic role, insurance contributes to the well-being of society in terms of human development by improving the people's choices and opportunities and lead to greater well-being. During the past three decades, the governments of South

Asian countries have made considerable effort to change the structure of the financial systems in order to channel savings to investments, which is a crucial component of development programmes of a country. More importantly, the funds mobilised from life insurance market are readily available for long-term investment of an economy (Ward and Zurbrugg 2002). Hence life insurance funds act as an alternative source of internal fund mobilisation for the emerging South Asian economies which have traditionally been heavily depending on foreign debts and grants for budgetary support. Low insurance penetration and low insurance density evidence that insurance is one of the most underdeveloped segments in the South Asian region. By identifying drivers of insurance demand, policymakers can take corrective decisions to improve the consumption of insurance in the region.

The reform of economic activities over the past three decades has made remarkable changes in the South Asia region economically, socially and demographically (Nabi 2010). Higher economic growth has led to reasonably increased personal income and living standard of the people (Perera, Siriwardana, and Mounter 2017). Changes in demographic profile specifically, higher population growth, transition from an agricultural to an industrial society, development of cities as economic centers, large-scale of urbanization, rise in the level of education, improved health care facilities and changes in social and other welfare provisions of the governments are generalized tendencies possible to observe in emerging South-Asian economies. This transition has had a high impact on traditional values, and people's perceptions of risk and has influenced the demand for life insurance because traditional economic security no longer tends to be provided by the governments or extended families (Outreville 1996, Sen 2008). Furthermore, the life expectancy of the region has increased, and there is a growing trend of ageing population. This tendency creates the need for long term financial planning to cater to the longevity risk and its associated needs and provide an opportunity for the growth in the demand for the life insurance market.

Much of the existing studies of Asia has focused on the leading emerging market of China which dominates the one-third of the emerging insurance market of the world (Swiss-Re 2011). Hence, studies focusing on Asia may not have identified the region-specific determinants of South Asian countries. Among others, South Asia has regional specific socio-demographic, political, legal and cultural characteristics. Despite the increasing number of empirical studies regarding the determinants of life insurance demand, none of them has focused exclusively on the South Asian region. Browne and Kim (1993), Outreville (1996) and Dragos (2014) have included India of this region in their studies based on an international panel data sample.

This study aims to examine the variables significantly affecting the consumption of life insurance in emerging insurance markets in the South Asian region. We test the influence of a set of economic, socio-demographic and financial variables employing Fixed-effect, Random-effect and Feasible

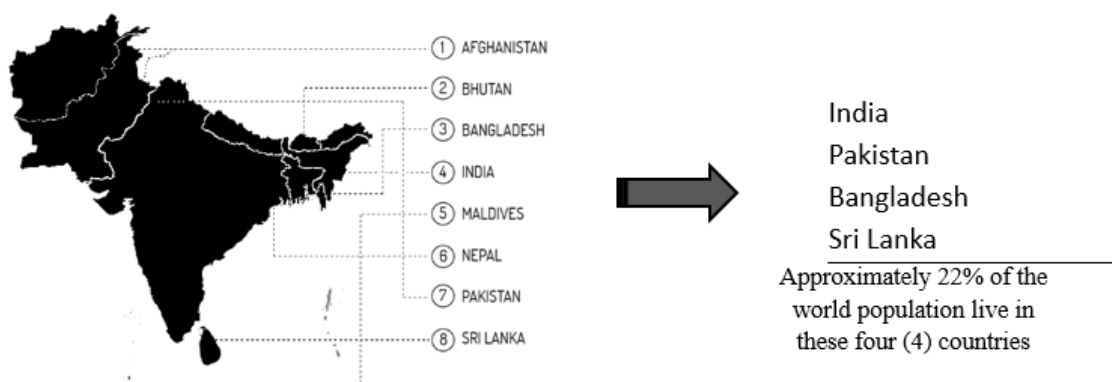
Generalized Least Square (FGLS) panel regression methods to identify the significant determinants of life insurance consumption in the region. This paper advances the existing literature in a few ways. First, this improves our knowledge, since no empirical studies on drivers of life insurance demand in the South Asian region have been conducted so far. Second, we use both life insurance penetration and life insurance density as alternative measures of life insurance consumption which provide additional depth. Third, for the first time, this study estimates the effect of private out of pocket health expenditure on life insurance consumption. The results of this study would help inform policy decisions in improving the low life insurance penetration in South Asia by considering the unique characteristics of the region.

The rest of the study is structured as follows; Section - 2 provides a brief overview of emerging life insurance markets in the South Asian region. Section-3 reviews theoretical and empirical studies on the determinants of life insurance. Section 4 focuses on the data and methodology employed in the paper. Section 5 discusses the findings of the study while Section 6 concludes the study and makes policy recommendations.

Life insurance consumption in emerging markets in the South Asian region

According to Swiss-Re (2018), Bangladesh, India, Pakistan, and Sri Lanka are the countries viewed as emerging insurance markets in the South Asian region. South Asia consists of eight (8) countries: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. This region only occupies approximately 3 per cent of the world's land area and is the most densely populated region living over 24 per cent of the world's population. However, this region consumes only 2.89% of the World Life Insurance Market (Swiss-Re 2018).

South-Asian Region



Low life insurance penetration and density evidence that life insurance in the south Asian region is one of the least developed segment. The unique socio-demographic and cultural background of the region may be considered insurance as irrelevant or inappropriate for ideological, cultural, or religious reasons,

or because traditionally economic security is provided through the family.

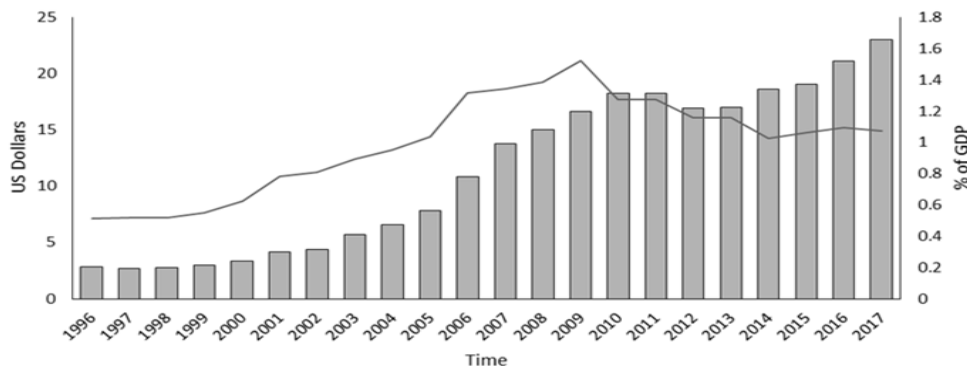


Figure 1. Evolution of Average life insurance Density and Penetration of Emerging South Asia.
Source: Author's calculations based on data from Swiss Re, Sigma.

Figure 01 shows the evolution of the life insurance sector of four emerging insurance markets in the South Asian region from 1996 to 2017 according to the data published by Swiss Re. There are significant differences among the countries in the development of the life insurance sector, for an example, while Bangladesh has the lowest penetration rate (0.40%), India has a rate above 2 per cent. Indian life insurance market has developed gradually over the last two decades, while the performances of the other three countries show only a slight development. The last two year records (2017 and 2016) show that the penetration and density of Pakistan and Bangladesh has declined although their economies maintain over a 5% economic growth. According to 2017 data, life insurance penetration of India, Pakistan, Sri Lanka and Bangladesh are 2.76%, 0.60%, 0.54% and 0.40%, respectively. Similarly, the life insurance growth rate of 2017 in India, Pakistan, Sri Lanka, and Bangladesh are 17.4%, 53% 4.5% and -2.6 %, respectively. Bangladesh has recorded the highest GDP growth rate of 7.3% in the region, yet, life insurance growth rate has recorded a negative value (-2.5%). Concerning life insurance density, India is the first with a US\$55, Sri Lanka is the second with a US\$22, Pakistan is the third with a US\$9, and Bangladesh is the fourth with a US\$6 in 2017.

Literature Review

Theoretically, the primary motive for life insurance consumption was modelled by Yaari (1965) based on the concept of the uncertainty of life. According to Yaari (1965), the demand for life insurance is a function of wealth, expected income over an individual's lifetime, the level of interest rate, and the price of life insurance policies and assumed personal discount rate for current over future consumption. Subsequently, Lewis (1989) extends Yaari's model by explicitly incorporating the preferences of beneficiaries. From permanent income theory, an alternative argument developed by Friedman (1957) and argues that the current income does not determine consumption and saving choices, but slightly by the expectation of long-term income. Accordingly, people may buy life insurance to protect their potential

income to keep a suitable hardship in the event of premature death. The literature evidence that the studies into life insurance demand have followed two main directions. The first, based on a microeconomic perspective, use survey or microdata on individuals in order to empirically test the hypotheses and theoretical conclusions (Huber 2011). The second direction, based on a macroeconomic perspective, uses aggregate cross-sectional, panel or single-country data to analyse the determinants (Alhassan and Biekpe 2016). Since this study is related to the second framework, the empirical review restricted to studies from the macroeconomic perspective.

The literature is well-off with empirical studies on factors affecting the demand for life insurance in developed and developing countries. Outreville (1996) employed cross-sectional data on 45 developing countries to analyse the effect of higher education, health condition, market competition, agricultural status and financial development on life insurance consumption. They found that personal income, development of the financial market and market competition significantly improves the life insurance consumption. Enz (2000) carried out an analysis of emerging and developing countries to identify the changing relationship between income and insurance consumption. This study revealed that the so-called S-curve relationship between per-capita income and insurance penetration where the income elasticity of insurance demand for developed countries is lower than that of emerging countries. Donghui Li (2007) also undertook a comprehensive study examining the determinants of life insurance consumption in 30 OECD countries.

Similarly, Elango (2011) examined the determinants of life insurance demand on emerging economies from 1998 to 2008. The findings conclude that demographic factors explain a greater variance relative to economic and institutional factors while economic factors explain the highest among of variance in terms of insurance growth rates. Kjosevski (2012) also used fixed effect panned model for 14 Central and South-Eastern Europe (CSEE) countries to identify the factors causing the variance in life insurance consumption between different countries. The results confirm that higher, GDP per capita, inflation, health expenditure, level of education and the rule of law as the most significant predictors of the life insurance consumption. Using a sample of 17 emerging economies from Asia and Europe for ten(10) years, Dragos (2014) examined the effect of urbanisation, income and their distribution, and level of education on demand for insurance. The study results found urbanisation and income as significantly influencers while the level of education non-significant on life insurance consumption. The study by Alhassan and Biekpe (2016) discussed the determinants of life insurance consumption in Africa using a dataset of 31 African countries from 1996 to 2010 and found a positive impact of financial development, health expenditure and institutional quality while income, inflation, dependency ration, and life expectancy negatively impact on the life insurance consumption. The author further concludes that demographic factors better explain life insurance consumption than financial factors.

Although there are robust empirical explanations for determinants of life insurance, none of them has focused on the South Asian countries specifically. In order to fill the gap, this empirical study is carried out on four emerging insurance markets in the South Asian region. South Asian countries characterised by unbalanced economic development and complicated social structure (Nabi 2010). The changes in income, education and social structure, financial development, and population size, urbanisation, and expansion of the middle class of the region may create an opportunity to develop life insurance market in the region.

Empirical Methodology and Data

Variables definitions and Hypothesis

In this study, we use two indicators as the measures of life insurance consumption at the national level. The first indicator is the life insurance density. It represents per capita spending on life insurance expressed in real international dollars. It defined as the ratio of life insurance premium volume to the country's total population. This variable used by Donghui Li (2007), Beck et al. (2003), Ward and Zurbruegg (2002), Alhassan and Biekpe (2016) among others. Since people in developed countries tend to buy more coverage with higher face value, we expect that life insurance density to be more income elastic than life insurance penetration.

The second indicator of life insurance consumption is life insurance penetration. This variable indicated the contribution of the life insurance sector to the economy and measured as the ratio of life insurance premium to the size of the economy (Gross Domestic Product). Life insurance penetration is not a perfect measure of consumption since it is the product of price and quantity. When competition and cost regulation of the industry is low, prices of insurance products might increase without representing a higher level of actual life insurance consumption. However, existing literature evidence that life insurance penetration has used as a proxy to measure the level of life insurance consumption in international studies (Zerriaa and Noubbigh 2016, Beck et al. 2003, Donghui Li 2007)

Independent Variables

Based on the existing theoretical and empirical evidence, and data availability, we examine seven (07) variables which may affect life insurance demand in emerging markets in the South Asian region. The following section illustrates motivates of those independent variables employed in the regression model and explain how they may effect on life insurance consumption.

It is well known that India, Pakistan, Bangladesh, and Sri Lanka represent a large market (22% of the world population living) in the world and their economies have grown fast over the recent years (Nabi 2010). Since economic growth usually considered as the most crucial factor for the promotion of insurance consumption, we undertake economic factors as the main variables affecting the demand for insurance in South Asia. Accordingly, the income level and development of the financial system

considered as economic variables. The level of education, private health expenditure, young dependency, life expectancy and urbanisations considered under the socio-demographic category of this study.

Income: existing empirical studies highlight a significant and positive correlation between the level of income and life insurance consumption (Zerriaa and Noubbigh 2016, Donghui Li 2007, Browne and Kim 1993). They argue for a positive relationship in two ways. First, life insurance becomes more affordable when income increases. Second, a higher level of income cause to more willingness to protect the living standards of their dependents in the case of insured premature death. However, the income elasticity of demand varies across countries depending on the level of income with higher elasticity for emerging economies compared to develop market (Enz 2000). Hence, it is expected that the income elasticity of life insurance demand to be positive in South Asia. The income elasticity of life insurance demand also depends on the nature of the demand for insurance services. If insurance is perceived as a normal good, increase in income encourages higher insurance demand in the presence of other risk management tools and other market conditions. The literature evidence that some studies provide insurance as a normal good while others have provided insurance as an inferior good under different conditions (Feyen, Lester, and Rocha 2011). Similarly, Beck et al. (2003) argues that the interaction between income inequality and income levels create the relationship more ambiguous. In this study, following Kim (1993), Donghui Li (2007), Zerriaa et al. (2017), we use GDP per capita expressed in US dollars to measure the income level.

Hypothesis 1: There is a positive relationship between income and life insurance demand in South Asia.

Urbanisation: Urbanization is an indicator of gradual transformation from an agricultural base to an industrialised economy with the argument that higher level of urbanisation improves the development of insurance market (Outreville 1996, Neumann 1969). This argument is supported by Beck et al. (2003), claiming that a higher share of the urban population generally associated with less reliance on informal insurance agreements, which may lead to higher demand for formal insurance. Society of South Asian countries characterised by mutual support in the form of a moral or social obligation, which reassures individuals regarding their financial security in the case of premature death or inability. The transition in the socio-economic and demographic patterns of South Asian society indicates that tradition and convention are loosening, which is likely to have both a direct and an indirect impact on people's attitude towards risk and insurance. Also, after completing higher education, most of the young people settle in major cities or urban areas to engage in their jobs. Therefore, they are no longer be able to rely on mutual support of their families and now need to seek an extended source of financial independence. Following Beck et al. (2003), we use the share of the urban population to the total population as a proxy for this variable.

Hypothesis 2: The level of urbanisation is positively related to life insurance consumption in South

Asia.

Dependency: the dependency ration is traditionally assumed to have a positive effect on life insurance demand, on the basis that income earners buy life insurance primarily to protect their dependents against premature death. According to Beck et al. (2003), the relationship between life insurance demand and dependency ration is somewhat ambiguous, because dependency ration can have different effects across different business lines (mortality risk, investment, and annuities). Further, Beck et al. (2003) highlighted the importance of breaking dependency ration between young and old dependency ratio. Browne and Kim (1993) and Donghui Li (2007) found a positive and significant effect only for the old dependency ratio while Beck et al. (2003) did not find significant effects for the young dependency ratio. The mixed results reflect that relationship is not consistent across both develop and developing countries and different compositions of the business lines of insurance business (Beck et al. 2003). We argue that the high dependency ratio serves as a strain on income due to the high level of current expenditure, and may cause household does not have enough left of their income to purchase life insurance. Hence, we expect an adverse effect of dependency ratio on life insurance consumption in South Asia. Following Ward and Zurbruegg (2002), we use young dependency ratio defined as the ratio of young dependents (children under 15 years old) to working-age population (peoples between 15-64 years old) as a proxy for this variable.

Hypothesis 3: Young Dependency negatively effect on life insurance consumption in South Asia

Health Expenditure (HEXP): we employ the private out of pocket health expenditure to GDP as a proxy for social security. Social security expenditure may affect the demand for life insurance in different ways. First, social security expenditure considered as a proxy for national wealth which can be viewed as a substitute for life insurance coverage or self-coverage (Browne and Kim 1993). Furthermore, given that social security benefits come from taxes, which may reduce available income to purchase life insurance. Also, Ward and Zurbruegg (2002) explained the ‘substitution’ hypothesis and argued that, when the government increases its social provisions, the need for individuals to make private provision against premature death or longevity via insurance is reduced. Studies of existing researchers have been examined the national health expenditure as a proxy for social security (Alhassan and Biekpe 2016, Kjosevski 2012). In this study, we argue that higher private out of pocket health expenditure stimulate individuals to evaluate life insurance policies that cover health and operational expenses. Hence, high private health expenditure for surgical and critical illness is hypothesised to increase the consumption of life insurance.

Hypothesis 4: Private out of pocket health expenditure is a positive effect on life insurance consumption in South Asia

Education (EDU): We employ the level of education as a proxy for financial literacy and expect that it

affects the demand for life insurance positively in several ways. First, a higher level of education stimulates a stronger desire to protect dependents and safeguard their standard of living (Truett and Truett, 1990). Also, the level of education determines an individual's ability to understand the benefits of risk management and savings, which may lead to higher demand for life insurance. According to Browne and Kim (1993) and Hwang and Gao (2003), a higher level of education increase a person's degree of risk aversion and awareness of the importance of insurance. Whereas, the demand for insurance is generally found to increase with risk aversion (Bommier and Le Grand 2014).

Furthermore, Friedman (1957) argues that permanent income is determined not only by the present value of non-human wealth but also by return on human capital in the form of future income resulting from education. However, a recent empirical study revealed that financial literacy does not necessarily translate to insurance literacy and more specialised education can improve insurance literacy (Lin, Bruhn, and William 2018). However, following the most previous empirical studies Donghui Li (2007), Alhassan and Biekpe (2016), Zerriaa et al. (2017), we employ tertiary education gross enrolment rate as a proxy for educational attainment.

Hypothesis 5: Education positively correlated with life insurance demand in South Asia.

Financial Development (FDV): The financial system of the South Asian countries recorded substantial improvements during the past three decades. According to Donghui Li (2007) development of the financial system is associated with the securitisation of cash flows enabling people to secure their income through the ownership of financial assets. Therefore, countries with a higher level of financial system development are expected to have more life insurance sales. Also, it may help insurance companies to invest more efficiently and offer a better price for their consumers. Beck et al. (2003) argue that an advanced banking system of a country facilitates the development of other financial services like insurance. When financial institutions provide credit facilities for individuals and businessman, they are required to purchase a life insurance policy to serve as security in case if it becomes impossible to settle them either through incapacitation or death., Following the most recent empirical studies, we measure the proxy of financial development using the ratio of broad money supply (M2) to Gross Domestic Product (GDP) (Donghui Li 2007, Elango 2011, Alhassan and Biekpe 2016, Zerriaa and Noubbigh 2016). According to David H. Feldman and Gang (1990) explain this ration as "real Size" of the monetary system within the economy.

Hypothesis 6: Development of Financial system is positively influence on life insurance consumption in South Asia.

Life Expectancy: Previous studies include life expectancy in their models to reflect the actuarially fair price of life insurance (Beenstock, Dickinson, and Ki-Ia.Iuria 1986, Outreville 1996, Donghui Li 2007, Zerriaa and Noubbigh 2016). An individual's age is the crucial determinant of the calculation of life

insurance premiums. Accordingly, longer life expectancy decreases life insurance premium and lead to stimulating consumption. Hence, the literature suggests that life expectancy has a positive influence on life insurance consumption (Outreville 1996). According to life cycle theory too, life expectancy positively influenced the life insurance demand and justified the argument that longer life expectancy leads to increase longevity risk. The demand for life insurance is increased as it can be used as a retirement provision to enjoy longer life spans. During the last three decades, the life expectancy of the South Asian region has recorded significant increase. In contrast, higher life expectancy is recognised to impact negatively on life insurance consumption since it implies a low probability of death, hence lower motivation to purchase life insurance (Donghui Li 2007). Following the prior studies, we use average life expectancy at birth as a proxy of this variable (Browne and Kim 1993, Donghui Li 2007, Outreville 1996) and hypothesis as follow.

Hypothesis 07: Life expectancy is positively related to life insurance demand in South Asia.

Empirical Model

We constructed the following panel data model to empirically study the effects of selected variables on demand for life insurance in emerging markets in the South-Asian region. The literature evidence that most common specification in the studies of the determinants of life insurance demand is the log-linear form used by Outreville (1996), Ward and Zurbruegg (2002), Browne and Kim (1993), and Alhassan and Biekpe (2016). Log-linear form creates the linearity in the data and provides estimations of the coefficients on the independent variables that can be interpreted as elasticity. Also, the use of logarithmic transformation has the advantage of allowing us to estimate the elasticities of life insurance demand. Furthermore, logarithmic transformation mitigates skewness and makes variances more stable and may help to correct normality and heteroscedasticity and tends to give better estimations.

In this study, we employ logarithmic transformation only for variables of level value and variables expressed on rate are not transformed since they are already in a preferred form as a measure of change. Hence, the variables life insurance density, income, and life expectancy transformed into their natural logarithm values.

$$\text{LnDEN}_{it} = \alpha_i + \beta_1 \text{LnINC}_{it} + \beta_2 \text{URB}_{it} + \beta_3 \text{FDV}_{it} + \beta_4 \text{EDU}_{it} + \beta_5 \text{HEXP}_{it} + \beta_6 \text{LEXP}_{it} + \beta_7 \text{DEP}_{it} + \varepsilon_{it}$$

$$\text{PEN}_{it} = \alpha_i + \beta_1 \text{LnINC}_{it} + \beta_2 \text{URB}_{it} + \beta_3 \text{FDV}_{it} + \beta_4 \text{EDU}_{it} + \beta_5 \text{HEXP}_{it} + \beta_6 \text{LEXP}_{it} + \beta_7 \text{DEP}_{it} + \varepsilon_{it}$$

Where, ln denotes the natural logarithm, the subscript t refers to the years, DEN denotes life insurance density, PEN is life insurance penetration, INC is income per capita measured in US dollar, URB is Urban Population, FDV is Financial Development, EDU is education, HEXP is health expenditure, LEXP is life expectancy at birth, DEP is young dependency ratio, and ε_{it} is the error term

Data

We use annual data of four (04) emerging South Asian countries (Bangladesh, India, Pakistan and Sri Lanka) over the period from 1996 to 2017. The period was chosen based on data availability for the main variables of the study. In this study, we use two measures as demand for life insurance consumption: life insurance density and life insurance penetration (Zerriaa and Noubbigh 2016, Alhassan and Biekpe 2016, Beck et al. 2003). Table 1 explains the definitions and data source of variables used in the model.

Table 01 : Data definition and sources

Variable	Description	Sources
Dependent Variables		
Life Insurance Density	Life Insurance Premium / Total Population	SRSP
Life Insurance Penetration	Life Insurance Premium / GDP	SRSP
Independent Variables		
Income	Real GDP per capita in US dollar	WB
Urban Population	Percentage of Urban Population	WB
Financial Development	The ratio of the board definition of money M2 to GDP	WB
Education	Territory Education / Gross Enrolment	WB
Health Expenditure	Private Out of Pocket Health Expenditure / GDP	WB
Life Expectancy	Average Life Expectancy at birth	WB
Young Dependency	children under 15 years old / peoples between 15-64 years old (working population)	WB

Note: SRSP = Swiss-Re Sigma Publications, WB = World Bank

Results and Discussion

Table 2 displays the summary statistics of the study variables. Life insurance consumption of emerging South Asian countries remains very low at 0.9947% of gross domestic product with a minimum of 0.2% to 4.6% maximum value. Similarly, the average per capita insurance consumption of the selected countries is US\$ 11.44 with a minimum of US\$1 and a maximum of US\$55. Large values for standard deviation and range of insurance densities indicate the difference of countries in terms of demand for insurance. The average income per capita is US\$ 1,319.57, while maximum and minimum record 456.24 and 3842.3 respectively. A standard deviation of 832.78 indicates a higher variation, which suggests wide income disparity in the South Asian countries. Also, average value of per capita life insurance consumption (DEN) and per capita income (INC) reflects that life insurance consumption has a little fraction (0.86%) of average income (11.4 / 1320). The variable young dependency ratio averaged 52.88% while urban population, territory education, and private health expenditure averaged 27.67%, 10.90%, and 89.11% respectively. Table 02 also indicates a large dispersion of the variables income, financial development, education, young dependency.

Table 2: Descriptive Statistics

	Mean	Std. Dev	Min	Max	N
Density	11.43925	14.20076	01	55	88
Penetration	0.9947788	1.100488	0.2	4.6	88
Income	1319.573	832.7846	456.2377	3842.296	88
Urbanization	27.67391	6.389206	18.196	36.442	88
Financial Development	51.94376	13.69692	25.63388	80.14708	88
Education	10.90006	6.584073	-2.04778	26.98159	88
Life Expectancy	67.74114	4.25853	60.877	76.9	88
Health Expenditure	89.11107	5.336688	78.46746	98.14549	88
Young Dependency	52.88605	11.69266	36.42739	79.33179	88

Note: Density = Life Insurance Density, Penetration = Life Insurance Penetration, Income = GDP Per capita in US \$, Urbanization = Urban Population, Education = Territory Education, Health Expenditure = Private out of Pocket Health Expenditure

Table 03 presents the correlation matrix of the variables used in the model. According to Kennedy (1998), if the correlation coefficients among the independent variables are above 0.7, there is a risk of multicollinearity issues. The correlation matrix illustrates that some of the potential determinants of life insurance are highly correlated with each other. As can be seen in table 03, young dependency is highly correlated with life expectancy (-0.8772), income (-0.7544*) and education (-0.7723). The high correlations among the independent variables increase the risk of multicollinearity that can lead to generating spurious results. According to the literature, Ward and Zurbruegg (2002) and Hwang and Greenford (2005) address this problem by excluding the highly correlated variables while Sliwinski Adam (2012) uses factor analysis. In this study, we examined the multicollinearity using variance inflation factors (VIFs). According to Kennedy (1998) and Gujarati (2003), multicollinearity exists if the VIF is greater than the critical threshold of 10. Table 04 presents the outcomes of VIF calculations. As shown in the table, independent variables' VIF values range from 1.95 to 16.59. Except for the variable young dependency, all other VIF values are within the cut-off limit of 10. Therefore, we removed the variable young dependency (Eq-I) from the models and calculated the VIF values for the variables. As can be seen in table 04, all the VIF values are below the threshold level of 10, which proves that multicollinearity is not an issue of the equation I (Eq – I).

An alternative arrangement is estimated to test the effect of young dependency on life insurance consumption in the south Asian region. According to the high correlations, dependency has to be integrated into models after the exclusion of income and life expectancy variables. This arrangement exhibits in equation II (Eq – II). As shown in table 04, all the VIF values of Eq-II is less than the threshold limit 10, which confirms the non-existence of the multicollinearity problem. The homogeneity of the panel data was checked using Fischer test to examine the null hypothesis whether the constant terms are equal. The results show that p-value is less than 0.05 for two equations, and ensure the existence of heterogeneity for both estimations (density and penetration).

Table 3 Correlation Matrix

	1	2	3	4	5	6	7	8	9
1. lnDEN	1.0000								
2. PEN	0.7621*	1.0000							
3. lnGDP	0.5942*	0.0544	1.0000						
4. URB	-0.0333	0.1906	-0.4716*	1.0000					
5. FDV	0.7058*	0.7692*	0.0649	0.5672*	1.0000				
6. EDU	0.8684*	0.5376*	0.5959*	-0.0995	0.5893*	1.0000			
7. lnLEX	0.3838*	-0.1450	0.7522*	-0.5506*	-0.0459	0.5935*	1.0000		
8. HEXP	-0.1259	0.0022	-0.4360*	0.0805	0.1086	0.0059	-0.1548	1.0000	
9. DEP	-0.6725*	-0.2256*	-0.7544*	0.5570*	-0.1757	-0.7723*	-0.8772	0.1765	1.0000

Note: lnDEN = Life Insurance Density, PEN = Life Insurance Penetration, lnGDP = Income (GDP Per capita in US \$), URB = Urban Population, FDV = Financial Development, EDU = Territory Education, lnLEX = Life Expectancy, HEXP = Private out of Pocket Health Expenditure, DEP = Young Dependency Ratio

*P<0.05

Table 4 Variance inflation factors

Independent variables	All Variables	Eq – 1	Eq - 2
Income	4.26	4.00	-
Urbanization	6.36	3.07	4.64
Financial Development	5.59	4.24	4.04
Life Expectancy	7.93	3.36	-
Education	6.26	4.50	5.51
Health Expenditure	1.95	1.59	1.17
Young Dependency	16.59	-	6.82

This table presents VIF calculations for three sets of different independent variables. 'All Variable' set includes the original list of independent variables. Eq. 1 excludes variable young dependency and Eq. 2 includes young dependency and exclude income and life expectancy to alleviate multicollinearity. This is applied in Model I and Model II, where life insurance demand is measured by insurance density and insurance penetration, respectively.

Next, we execute the fixed effect model and random effect model to estimate the determinants of life insurance in emerging markets in South Asia. We use Hausman test (Hausman 1978) to determine the most suitable model among Fixed and Random models. If the results of the Huseman test indicate a p-value of less than 0.05, we will use the fixed-effect model. Our results of Hausman test indicate the appropriateness of Fixed-effect model for Eq –I in the case of predicting variable is density and Eq – II, in the case of predicting variable is life insurance penetration. Furthermore, Hausman test confirms the suitability of random-effect model for the Eq – II in the case of predicting variable is life insurance density and Eq – I, in the case of predicting variable is life insurance penetration. Then, we check the most appropriate model among random and OLS models using Breusch–Pagan test. The test results fail to reject the null and conclude that no evidence for significant difference across countries and confirm

random effect is not appropriate, therefore, for checking the robustness of results, we have also applied Feasible Generalized Least Method (FGLS) to address any sensitivity relating to problems of autocorrelation, heteroscedasticity. Furthermore, according to Baltagi (2013), cross-sectional dependence is a problem in a macro panel with long-term data serious (over 20-30 years) hence, we also check cross-sectional dependence using Breusch-Pagan LM test of independence and Pasaran CD test., The results of both tests accept the null hypothesis and confirm residuals are not correlated. Finally, we checked for autocorrelation using the Wooldridge test (Wooldridge 2002), and the test results show the presence of first-order autocorrelations.

Regression Results

Table 05 presents the estimation results of potential determinants of life insurance consumption in the emerging insurance market in South Asia. The Ward statistics and their associated p-values indicate the overall significance of the regression models. Model-I and Model-II, indicate the effect of life insurance density and penetration, respectively. Also, Eq-I estimates the determinants except for young dependency while Eq – II model includes the young dependency and excludes income and life expectancy variables.

We find that income significantly and positively influences life insurance consumption measured with density in random-effect and FGLS estimations but insignificant in the fixed-effect estimation at 5% level. The positive income effect is consistent with the findings of Beck et al. (2003), Outreville (1996), Donghui Li (2007) and Zerriaa et al. (2017), and indicates that when income increases, life insurance becomes more affordable. Also, income elasticity coefficient is 0.6352 which suggests that life insurance demand in emerging markets in South Asia is not income elastic. More specifically, as aggregate per capita income increases by 1 per cent, life insurance demand rises by 0.6352 per cent. The finding is supported with the previous cross country studies on the determinants of life insurance demand. For example, Dale B. Truett and Truett (1990) find that income elasticity is between 0.77 and 3.87 for the United State and Mexico. Kjosevski (2012) find an income elasticity 11.56 for Central and South- Eastern Europe (CSEE). Zerriaa and Noubbigh (2016) find that income elasticity is 0.6207 in the Middle East and North Africa (MENA) region, and Donghui Li (2007) for a sample of 30 OECD countries range between 0.63 and 1.28.

However, we find that negative income elasticity of demand for life insurance estimated with penetration in emerging South Asian markets. The negative effect implies that as income increases, life insurance penetration decreases. This relationship is robust across all estimations and consistent with the findings of Alhassan and Biekpe (2016). The negative effect could be explained by insurance being seen as inferior good by the peoples of the countries selected for the study. Also, high-income inequality of Asian countries could also help explain the negative relationship. High-income inequality suggests that only those in the upper-income group are able to afford life insurance, but their wealth stimulates to invest

in other financial products other than insurance while the lower class cannot afford. Moreover, a relatively large proportion of households in South Asian countries still drive their income from agricultural, and income is subject to large fluctuations in prices of agricultural commodities and climatic conditions (Outreville, xe, and ois 1996).

Table 05: Results of fixed effects, random effects and FGLS regression techniques

	Life Insurance Density (Model - I)					
	Fixed-effects		Random-effects		FGLS	
	Eq - 1	Eq - 2	Eq - 1	Eq - 2	Eq - 1	Eq - 2
Income	.1402745 (.477159)	-	.6352408*** (.1352475)	-	.6352408*** (.1297569)	-
Urbanization	-.0336343 (.0288721)	-.0765124** (.0316909)	-.0607185*** (.0100845)	-.0731699*** (.0147215)	-.0607185*** (.0096751)	-.0731699*** (.0142107)
Financial Development	.0135361 (.0288721)	.0287351*** (.0316909)	.048989*** (.0055307)	.0576804*** (.006406)	.048989*** (.0053062)	.0576804*** (.0061837)
Life Expectancy	13.19763** (.0288721)	-	-5.780906*** (1.081691)	-	-5.780906*** (1.037778)	-
Education	.0350615 (.0288721)	.0573605*** (.0118103)	.0907332*** (.0055307)	.0896513*** (.0155714)	.0907332*** (.0113781)	.0896513*** (.0150312)
Health Expenditure	.0106637 (.0288721)	.005055 (.0087843)	-.0184861*** (.0055307)	-.0408227*** (.0155714)	-.0184861** (.008329)	-.0408227** (.008544)
Young Dependency	-	-.0574692*** (.0140157)	-	.0086784 (.0097524)	-	.0086784 (.0094141)
Constant	-55.93408*** (14.52785)	4.35643** (1.647622)	21.45763*** (4.369943)	2.998358*** (.7624736)	21.45763*** (4.192537)	2.998358*** (.7360213)
R ² within	0.8715	0.8716	0.7288	0.8007		
Between	0.1400	0.5348	0.7543	0.9699		
Overall	0.3535	0.6272	0.7529	0.8873		
F-test chi2 (P-value)	F(6, 78) = 88.21 (0.000)	F(5, 79) = 107.28 (0.000)				
	F(3, 78) = 12.26 (0.000)	F(3, 79) = 28.94 (0.000)				
Hausman test (P-value)			10.98 (0.2028)	10.14 (0.0713)		
Wald test (P-value)	17.41 (0.0016)	3.56 (0.4693)	943.79 (0.000)	645.69 (0.000)	1025.35 (0.000)	692.94 (0.000)
Breusch-Pagan test (P-value)						0.00 (1.000)
Breusch-Pagan LM (P-value)	28.914, (0.1020)	22.157 (0.0011)				
Pasaran CD test (p-value)	1.160 (0.2462)	0.906 (0.3649)				
Wooldridge test (P-value)	58.417 (0.000)					
Observations	88	88	88	88	88	88

Life Insurance Penetration (Model - II)						
	Fixed effects		Random effects		FGLS	
	Eq - 1	Eq - 2	Eq - 1	Eq - 2	Eq - 1	Eq - 2
Income	-.2925022 (.6010444)	-	-.5550288*** (.1451594)	-	-.5550288*** (.1392664)	-
Urbanization	-.1612461*** (.0363681)	-.1749528*** (.0400395)	-.1315842*** (.0108235)	-.1567437*** (.0189286)	-.1315842*** (.0103841)	-.1567437*** (.0182719)
Financial Development	.0668491*** (.010336)	.0608541*** (.0082863)	.0797595*** (.005936)	.1021794*** (.0082367)	.0797595*** (.005695)	.1021794*** (.0079509)
Life Expectancy	-2.030594 (4.746716)	-	-10.30378*** (1.160966)	-	-10.30378*** (1.113834)	-
Education	.0294134 (.0251767)	.005355 (.0149216)	.064847*** (.0127287)	.0478853** (.0200214)	.064847*** (.0122119)	.0478853** (.0193268)
Health Expenditure	-.0499249*** (.0120466)	-.0482936*** (.0110985)	-.0528532*** (.0093177)	-.0409624*** (.0113805)	-.0528532*** (.0089394)	-.0409624*** (.0109857)
Young Dependency	-	-.0102056 (.017708)	-	.0716206*** (.0125395)	-	.0716206*** (.0121045)
Constant	16.72474 (18.29974)	7.46028** (2.081672)	51.81394*** (4.690205)	-.6345708 (.9803726)	51.81394*** (4.499798)	-.6345708 (.9463608)
R ² within	0.5367	0.5341	0.5088	0.4403		
Between	0.4514	0.1439	1.0000	0.9850		
Overall	0.4652	0.1849	0.8957	0.7867		
F-test chi2 (P-value)	F(6,78)= 15.06 (0.000)	F(5,79) = 18.12 (0.000)				
	F(3, 78) = 1.78 (0.1586)	F(3, 79) = 30.91 (0.000)				
Hausman test (P-value)			5.33 (0.5021)	87.24 (0.000)		
Wald test (P-value)			695.80 (0.000)	302.35 (0.000)	755.93 (0.000)	324.47 (0.000)
Breusch-Pagan test (P-value)			0.00 (0.000)			
Breusch-Pagan LM (P-value)	11.534 (0.0732)					
Pasaran CD test (p-value)	-1.036 (0.3004)					
Wooldridge test (P-value)	530.088 (0.000)	388.085 (0.000)				
Observations	88	88	88	88	88	88

The symbols (*), (**), and (***) indicate statistical significance at the 10, 5, and 1 per cent level, respectively. This table presents fixed effects, random effects and FGLS estimates. Life insurance demand is measured by insurance density (Model I) and insurance penetration. (Model II).

Contrary to our expectations, we find that urbanisation negatively influenced whether life insurance demand is measured by density or penetration. The result is consistent with the findings of Africa (Alhassan and Biekpe 2016). The negative relationship suggests that urbanisation reduces life insurance consumption in South Asia. The finding can be justified based on the argument that urbanisation of the region is from the migration of rural poor to the urban centres. These rural migrants are generally poor and remit some of their earnings from the low paying jobs to their rural homes, and poverty level of the rural areas also directly account for the negative impact of urbanisation in South Asia. Also, our finding does not support the view that urbanisation stimulates the distribution of life insurance and less reliance on informal insurance agreement, mainly family and community.

As we expected, financial development also exhibited a significant and positive relationship with life insurance consumption in South Asia. This result confirms the view that the development of other segments of the financial system, specifically the banking sector, benefits the insurance industry and encourage life insurance in South Asia. The coefficients of financial development suggest that an increase in financial development by 1 per cent is associated with an increase of .05768 per cent and .07975 per cent in the life insurance density and penetration, respectively. This result stands in line with the previous empirical studies of Zerriaa and Noubbigh (2016), Outreville (1996), Beck et al. (2003) and Donghui Li (2007). Therefore, decision makers and marketing managers of insurers should focus on developing bancassurance (selling insurance products through banking system), which allows tapping into the large

customer base of banks and get their trust for insurance while increasing awareness among a large population. Many European countries have already shown the success with bancassurance as a dominant distribution channel of life insurance. For example, according to Swiss-Re (2006), the contribution of the bancassurance channel to the life insurance markets in Spain, France, and Italy is 72 per cent, 64 per cent and 59 per cent, respectively.

In line with expectations, young dependency shows a significant and negative effect on life insurance consumption, implying that increasing dependency ratio leads to lower life insurance consumption. This relationship is consistent with the findings of Ward and Zurbruegg (2002) in Asia and validates the life cycle hypothesis. We justify negative relationship by taking into consideration the high young dependency ratio in Asia, which indicate that population is too young to start working and poor working population in the region tries to meet the day-to-day needs of the family and may consider life insurance as an unnecessary expense. Furthermore, cost of fertility, education and children's health care keep increasing in South Asian region in recent years, resulting in a significant increase in the cost of living of families, which lead to constraint the demand for insurance. The result of our study is contrary to the findings that life insurance demand increases with the increase of the number of dependents (Zerriaa and Noubbigh 2016, Millo and Carmeci 2015, Browne and Kim 1993, Outreville 1996).

Education shows a significant and positive influence on whether life insurance demand is measured by density or penetration in South Asia. Notably, a 1 per cent increase in territory education level leads to an increase of .0907 per cent and .0648 per cent in the life insurance density and penetration respectively. Our finding is consistent with the hypothesis that a higher level of education leads to a greater degree of risk aversion and more awareness of the benefits of life insurance. Also, the variable education, captured by tertiary enrolment rate considered as a proxy for the financial literacy of the people (Alhassan and Biekpe 2016). Our results are in line with the permanent income hypothesis and with the findings of Zerriaa and Noubbigh (2016), Dale B. Truett and Truett (1990), Donghui Li (2007), Outreville (1996) and Browne and Kim (1993).

Unlike education, the coefficient of out of pocket health expenditure was found to be significant and negative whether life insurance demand is measured by density or penetration. The negative relationship suggests that increases in out of pocket health expenditure decrease the consumption of life insurance. For example, a 1 per cent increase in private health expenditure results in -.04082 per cent and -.0528 per cent decrease in the life insurance density and penetration respectively. Limitation of publicly funded health care facilities and an increase of private health cost are significant burdens for poor and middle-class families in the South Asian countries. Therefore, in this study, we have considered out of pocket health expenditure while prior researchers have considered public health expenditure as a proxy for this variable to measure the influence on life insurance consumption. The finding supports the view of Maslow's

hierarchy of needs because most of the people in the region attempt to cover basic needs (physiological and safety needs) from their low paying jobs and may consider insurance as an additional burden. Therefore, proper awareness about insurance and its ability to use as a safety device to recover unexpected medical and surgical expenses can lead to an increase in demand for life insurance in the South Asian region.

Contrary to our expectations, life expectancy at birth has a negative and significant effect on the demand for life insurance whether it is measured from penetration or density. This finding indicates that improving life expectancy (reducing mortality rate) leads to a decline in life insurance consumption in South Asia. More specifically, an increase in life expectancy by 1 per cent leads to a decline of 13.1976 percent and 10.3037 percent of life insurance density and penetration, respectively. Our results are in line with the findings of Africa (Alhassan and Biekpe 2016), where life insurance penetration and density is low compared with other regions. Also, the findings support the view that people's poor understanding of insurance and unawareness of the ability of insurance use as a retirement pension supplement to cover the longevity risk. Therefore, awareness of people to use insurance as a voluntary pension plan may increase the demand for life insurance in the South Asian countries.

Conclusions and Policy Implications

Taking motivation from the low life insurance penetration in South Asia, in this study we analysed the determinants of life insurance demand of four (4) emerging insurance market in South Asia. Our sample countries exhibit region specific unique characteristics and structural similarities, yet also exhibit significant differences to draw interesting observations compared with other international studies (Outreville 1996, Beck et al. 2003, Dragos 2014, Browne and Kim 1993, Alhassan and Biekpe 2016).

In South Asia, the reform of economic activities over the past three decades has made remarkable changes in their economic, social and demographic status. Higher economic growth has led to reasonable increases in personal income and living standards of people (Perera, Siriwardana, and Mounter 2017). Patterns of social and demographic structure affect people's attitudes towards risk and insurance (Sen 2008). Hence, this study aimed to examine the impact of potential socioeconomic, demographic and financial variables significantly affecting the life insurance consumption in South Asia using Fixed-effect, Random-effect, and Feasible Generalized Least Square (FGLS) panel regression estimations. From the empirical estimations, we find that economic, demographic and financial variables play a critical role in driving life insurance consumption of south Asia.

Inconsistent with previous research, we find that average life expectancy at birth plays a significant role in life insurance consumption in South Asia. An improved life expectancy (reducing mortality rate) lead to decrease life insurance demand, more specifically, an increase in life expectancy by 1 percent lead to a decline of 13.197 percent and 10.304 per cent of life insurance density and penetration respectively.

Also, empirical estimations show that demographic and economic variables play a crucial role in deciding the behaviour of life insurance consumption in South Asia. Specifically, in addition to average life expectancy, we find education, young dependency and private health expenditure as significant demographic determinants of life insurance. From financial variables, financial development was found to be the primary determinant of life insurance consumption in emerging South Asian markets. Also, we find that income is significantly and positively influence the life insurance consumption measured with density while negative income elasticity of demand estimated with penetration. The negative relationship is robust across all previous estimations and consistent with the findings of Alhassan and Biekpe (2016). We also find a significant negative effect of urbanisation and young dependency and out of pocket health expenditure on life insurance consumption. Overall, households in emerging insurance markets in South Asia appear to evaluate the anticipated benefits of life insurance in terms of derived benefits conditional on the income earner's death as well as the risk of the income earners' permanent disabilities.

The findings of this empirical analysis have broad implications for the development of the life insurance market in South Asia. First, we emphasise the necessity of taking considerable effort to improve the demographic structure; particularly, education and financial system to further stimulate the growth of life insurance consumption in South Asia. Also, the significant factors will give indications for the governments and regulators of the insurance market to make corrective policy decisions to promote insurance consumption.

Further research of this paper can be improved in the following ways. First, from the methodological perspective, a future study could also examine the impact of different income levels (inequality of income) of South Asian countries on the consumption of life insurance. Also, non-linear econometric modelling could also be used to examine the likely non-linear effect of income on life insurance demand. Furthermore, this analysis can also be replicated for the whole countries of the South Asian region based on data availability or non-life insurance market.

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INFORMATION SEARCH AND INTENTIONS TO PURCHASE: THE ROLE OF COUNTRY OF ORIGIN IMAGE, PRODUCT KNOWLEDGE, AND PRODUCT INVOLVEMENT

¹ YOSSIE ROSSANTY

² MUHAMMAD DHARMA TUAH PUTRA NASUTION

(Corresponding Author)

^{1 2}Department of Management

Faculty of Social Sciences

Universitas Pembangunan Panca Budi, Indonesia

Email: ¹ yossie_rossanty@dosen.pancabudi.ac.id,

² dharma_nasution@dosen.pancabudi.ac.id

ABSTRACT

This research purpose is to examine the effect of the country of origin image, product knowledge and product involvement on information search and intentions to purchase. Analysis of data used Structural Equation Modeling which operated by Lisrel version 8.5. Data obtained from 180 respondents from three cities in North Sumatera, Indonesia. The result of the research demonstrates that the country of origin image has a positive and significant effect on information search and intentions to purchase. Furthermore, Product involvement has a positive and significant effect on information search and intentions to purchase. However, product knowledge has not effect on information search and intentions to purchase. The selection of media and technology are accurate to deliver information the launch of a product, and it will increase consumer's knowledge.

Keywords: Information Search, Intentions to Purchase, Country of Origin Image, Product Knowledge, Product Involvement

1. INTRODUCTION

Indonesia agreed for carried out the agreement of ASEAN-China Free Trade Area (ACFTA) in early January 2010 and ASEAN Economic Community (AEC Offices) in January 2016. AEC is a form of integrated economic among of ASEAN member countries. The key features of AEC illustrated on the existence of a single market and production base; the commercial area with the high competitiveness; economic development area with the principles of justice, and the global economy area integrated. The policy of AEC has an impact to create a free market from the variety of sectors such as capital, goods, services, and labor. AEC have consequences on the free flow of goods or services, and capital investments,

include the expertise of human resources. Apart from that, ASEAN and China have an agreement to realize a free trade area with reducing barriers trade of tariffs, and non-tariffs for goods or services, and increase the access to market services, regulations and terms of investment, increasing the relationship economic cooperation between ASEAN and China which close relation. This agreement has the direct impact on the manufacturing companies in Indonesia. The products derived from the country of China has to take control the market in the big city of Indonesia such as textiles until mobile phones. Apart from the low price, Chinese products have pleasing aesthetics. The design of the product is a unique, and it has obtained the attention from consumers in Indonesia. One of the brands originated from China country is Lenovo. Consumers in Indonesia recognize the brand is Lenovo, primarily associated with "Notebooks." According To Consumer Notebook Product Manager, Lenovo Indonesia Christy C (2016) declares that the notebook sales have grown 45 % since January until November 2015 compared with the same period a year ago. In Indonesia, the sales of Lenovo included in the high growth, and the contribution obtained with the premium segment. Indonesian consumers show the appreciation of the Lenovo performance that indicated from the achievement's award of Lenovo as "Best Brand Award 2015" in notebook category.

The research report of Diamantopoulos (2011) explains that the free trade rules have the impact on the number of consumers do not recognize the brand of origin or the product's country of origin. This case is caused the consumers obtain the information is limited in evaluating the product. The product's country of origin will establish a particular perception in consumer's mind, and affect the purchase decision-making process (Wang, 2012). Country of origin formed the consumer's perception that influenced by the "halo effect" especially for products derived from countries have not recognized (Roth, 2008). Country of origin produces a particular image in customer's perception. The customers evaluate the country's image from the characteristics of the population in a country (Maher, 2011). Consumers evaluate the country's image from the aspect of country's advantages and weakness in the past (Lin, 2006). During consumers evaluate the country of origin image as a positive, that will affect on the purchase decision-making of process (Wang, 2012). Moreover, this condition is a psychological-driven that showed on consumer's attitude and behavior on the product or brand (Wang, 2008)

2. LITERATURE REVIEW

2.1 Information Search and Intentions to Purchase

Intention is a motif to particular morality. Intentions to purchase as the motif to act for specific brand or product. Intentions to purchase is "what you think; you will buy." Another definition declares that intentions to purchase are an awareness of a person to purchase the goods. Intentions to buy is the decision to make psychological actions that demonstrated the consumer's behavior on the product or brand. (Wang, 2008). According to Fill (1999) cited Hanzae (2011) explain that the stages of purchase decision-making process which include: problem recognition, information search, evaluation alternative, evaluate to purchase decisions and post-purchase. There is two primary aspects of information search activities: (1) information search derived from an internal aspect. Consumers scan the memory to recall

all experience and knowledge to perceive whether the information acquired a right information or bias; (2) information search derived from an external aspect. Consumers involve the family and friends as a source of reference and directing to the commercial, and advertising. The external information search required due to customers obtain the results is unexpected from internal information. When the consumers have the little information related to the product, will makes the product of country of origin as an instruction indirectly. The product knowledge is not only useful for information search, but knowledge has the influence to purchase decision-making process.

2.2 Country of Origin Image

The definition of the country of origin is the place where the goods produced or assembled in the countries. The country of origin is identical with the existence of the label "made in" or "manufactured in." However, the emergence of the hybrid products resulted in the accuracy or the validity of the information related to the origin of the product due to the material and components from the different countries (Ahmed, 2004). The study conducted by Yasin (2007) declare that the country of origin has the other pronunciation as "manufacture in," "assembly in " and "design in." While, the image of the country is "accurate image, stereotypes, and reputation which stored in consumer's mind and associated with the product's country of origin. This description produces some variables such as products representative, national characteristics, economic and political background, history and traditions (Nagashima, 1977). The country of origin image is a full data accurate and reliable related to aspects of economic, political and social technology in a country (Martin, 1993). The country of origin image was describing the element signals of intrinsic and extrinsic in the form the customer perception of the quality of the product in a country (Hong, 1989; Roth, 1992).

The consumers obtain the benefit in evaluating the product, such as consumers are accessible to the identification of product origin and will support the global companies to increase the exports of the product, then as the guidelines for international companies to compete in the world market. The developed countries as United States, Japan, and Western Europe have produced the high-quality product and famous of the brand. In the study of Wang (2012) mentions that the impact of the country of origin image in product evaluation and purchase decision-making process. Different thinking about the country of origin of the product based on awareness and consumer confidence have the effect on the purchase decision-making process (Torres, 2007).

Furthermore, the relationship between the cognitive country's image and intentions to purchase during the consumers perceived the income level and advance of technology of the country. This fact is related to the quality of products delivered by the country. The country applies the standard of raw materials, practices the expert employee and technology utilized in the country. It has the impact on the image of the product's country of origin. Consumers explored the information on the existence of product's generated from the countries as consideration in consumer's purchase. The purchase decision-making is a systematic process, begins from evaluating the acquisition and the variety of information about the product integrated. All information acquired consumers to stimulate the purchase action (Ahmed, 2004). Later, when the consumers have received the signals of information, the following

signs are the country of origin image, price, and brand. During the country of origin image viewed as negative in consumer's minds, this form has an influence on the product originated from the country.

On the contrary. While the picture of the country of origin has a positive result, the condition affects the product derived from the country. This case indicates the image of the country of origin has an effect on intentions to purchase the products from the particular country. The explanation refers to the finding of Lin (2006) indicate that country of origin image has an effect on the purchase decision-making process. Based on the previous research and explanation, the authors propose the hypothesis as follows:

H1: Country of Origin Image have a positive effect on information search

H2: Country of Origin Image have a positive effect on intentions to purchase

2.3 Product Knowledge

According to the Brucks (1985) cited Hanzae (2011) mentions that product knowledge as the product result of memory and knowledge existing in the mind of an individual. Product knowledge divided into the primary categories: (1) Based on subjective (2) Based on objective (3) Based on the experience. In the study of Lin (2005) indicate that product knowledge has a relationship with recognition and consumers belief on the product. The starting point for users to evaluate products related to the level of knowledge. Product knowledge is the information obtained by an individual from the products. The information has accumulated consumers with the high subjective knowledge, and the impact on the greater consumer attention on the country of origin in evaluating the quality of the product (Lee, 2009). Product knowledge as the knowledge individual from an internal factor. Knowledge leads consumers in selecting the products to make the purchase decision or reject the product. The higher level of product knowledge, the less chance for failure in evaluating the product (Lin, 2005). The relationship of product knowledge has an impact on directly in the form of intentions to purchase.

Moreover, the purchase intentions due to the extent of the product knowledge of the customer. Knowledge does not use only for information search. Knowledge has an influence in the purchase decision-making process. The relationship between the knowledge and the substance of information received has the positive relations. In the study of Lin (2006) found that consumer knowledge on the product has a positive and significant effect on the consumer's purchasing decisions process. Based on the explanation above, the authors proposed the hypothesis as follows:

H3: product knowledge have a positive effect on information search

H4: product knowledge have a positive effect on intentions to purchase

2.4 Product Involvement

The involvement originates from the science of social psychology and recognition about "ego involvement," refers to the relationship between the individual, problem or object (Michaelidou, 2006). In the report of Zaichkowsky, (1985) cited Hanzae (2011) that the level of consumer involvement in a particular object is determined the degree for the product viewed as a relevant personal. Involvement also related to the other concepts such as the perceived risk, information search, identification attribute, loyalty,

retails brand context, leadership, and opinions. Product involvement is defined as customer perception is immortal on the importance of product categories based on the needs of the attached, values and interests (Zaichkowsky, 1985)

Product involvement affects consumers in the decision-making process to purchase the products. The degree of consumers performs in search of information the product, period in adopting, the level of the attitude and preferences about the product may lead, and how the customer perception on the various alternative in the same product category and brand loyalty (Bauer, 2006). It depends on the perceived of the needs, values and consumer interest. Bauer (2006) asserts that it is necessary to know how deeply consumers were doing the process of information searching on the product and the period during the process of adoption until the product evaluation. Friedman (1993) cited Hanzae (2011) proposed when the consumer selects the product with the high-involvement, it indicates the information that consumer obtains more deeply associated with the product purchase. There are two types of product involvement; high-involvement, and low-involvement. The difference is related to the attitude of consumers in information search and purchase. The high product involvement requires an extended period in the process of search information compared with low product involvement. The results of research Lin (2006) revealed that the product involvement has a positive and significant effect on consumer purchasing behavior. Based on the explanations, researchers proposed the hypothesis as follows:

H5: Product involvement have a positive effect on information search

H6: Product involvement have a positive effect on intentions to purchase

3. MATERIAL & METHOD

The research used cross-sectional design and the authors use quantitative data to obtain the primary data. The selection of respondents using the judgmental sampling technique which selected based on the evaluation of the authors which represent a population (Malhotra, 2010). Minimize data sample for analysis multivariate is five times from the number of indicators, the number of samples uses 180 respondents. The research analysis method using Structural Equation Model which operated by Lisrel version 8.5. The level of pre-test the questionnaires were distributed to 30 respondents. The test aims to check for all aspects of the survey such as the content of questions, wording; the form and layout, the level of difficulty, and the instructions to fill the questionnaires. The reliability test showed reliable when the limit of Cronbach's Alpha value ≥ 0.6 . The validity test declares valid, when the limit value is required KMO values between 0.50 until 1, MSA values ≥ 0.50 (Malhotra, 2010) and the factor loading value ≥ 0.50 (Hair et al., 2010).

4. RESULT

4.1 Pretest

The results pre-testing from the variables of the country of origin image, product knowledge, product involvement, information search and intentions to purchase have the Cronbach's Alpha value is above of 0.6. That means the questionnaires research have good reliability level. The value of Keiser-Meyer Olkin

(KMO) shows that the number of Measure of Sampling Adequacy is a larger than 0.5. That means, it overall fit is fulfilled requirements. In the table of the component matrix, each item of the factor loading value is a larger than 0.5. The pretest results of reliability and validity showed in Table 1 below:

Table 1
Pretest Results of Reliability dan Validity

Code	Variable	KMO	Bartlett's Test of Sphericity	Factor Loading (component matrix)	Cronbach's Alpha
COI	Country of Origin Image	0,656	274,313	0,955	0,935
	Country of Origin Image	0,656	274,313	0,664	0,935
	Country of Origin Image	0,656	274,313	0,863	0,935
	Country of Origin Image	0,656	274,313	0,773	0,935
	Country of Origin Image	0,656	274,313	0,825	0,935
	Country of Origin Image	0,656	274,313	0,870	0,935
	Country of Origin Image	0,656	274,313	0,900	0,935
	Country of Origin Image	0,656	274,313	0,816	0,935
PK	Product Knowledge	0,928	196,256	0,943	0,975
	Product Knowledge	0,928	196,256	0,967	0,975
	Product Knowledge	0,928	196,256	0,948	0,975
	Product Knowledge	0,928	196,256	0,948	0,975
	Product Knowledge	0,928	196,256	0,967	0,975
PI	Product Involvement	0,956	297,499	0,972	0,977
	Product Involvement	0,956	297,499	0,920	0,977
	Product Involvement	0,956	297,499	0,972	0,977
	Product Involvement	0,956	297,499	0,869	0,977
	Product Involvement	0,956	297,499	0,899	0,977
	Product Involvement	0,956	297,499	0,957	0,977
	Product Involvement	0,956	297,499	0,972	0,977
IS	Information Search	0,903	160,174	0,955	0,957
	Information Search	0,903	160,174	0,950	0,957

	Information Search	0,903	160,174	0,875	0,957
	Information Search	0,903	160,174	0,864	0,957
	Information Search	0,903	160,174	0,875	0,957
ITP	Intentions to purchase	0,846	99,182	0,889	0,936
	Intentions to purchase	0,846	99,182	0,883	0,936
	Intentions to purchase	0,846	99,182	0,934	0,936
	Intentions to purchase	0,846	99,182	0,955	0,936

4.2 Measurement Model

CR value for each latent variable ≥ 0.7 that including good reliability. While AVE value for each latent variable ≥ 0.5 , that shows adequate convergence if SLF, CR, and AVE fulfill the good rule of thumb (Hair, 2010). Measurement model analysis is convergent validity; it showed in Table 2 below

Table. 2
Convergent Validity

Code	Variable	SLF	Error	SLF^2	CR	AVE
COI	Country of Origin Image	0.749	0.2106	0.561001	0.958735114	0.743869943
		0.7569	0.1938	0.572898		
		0.7577	0.1921	0.574109		
		0.7578	0.1919	0.574261		
		0.7578	0.1919	0.574261		
		0.7577	0.1921	0.574109		
		0.7571	0.1935	0.5732		
		0.7508	0.2068	0.563701		
Total		6.0448	1.5727	4.56754		
PK	Product Knowledge	0.7551	0.1977	0.570176	0.94128468	0.762271707
		0.7671	0.172	0.588442		
		0.7691	0.1676	0.591515		
		0.7671	0.172	0.588442		
		0.755	0.1978	0.570025		
Total		3.8134	0.9071	2.908601		
PI	Product Involvement	0.7516	0.2051	0.564903	0.954082579	0.748008024
		0.7588	0.1897	0.575777		
		0.7597	0.1878	0.577144		
		0.7598	0.1876	0.577296		
		0.7597	0.1878	0.577144		
		0.7589	0.1896	0.575929		
		0.7519	0.2045	0.565354		
Total		5.3004	1.3521	4.013547		

IS	Information Search	0.7554	0.1971	0.570629	0.833322793	0.764783924
		0.7675	0.171	0.589056		
		0.7696	0.1666	0.592284		
		0.7673	0.1715	0.588749		
		0.754	0.2	0.568516		
Total		3.8138	0.9062	2.909235		
ITP	Intentions to purchase	0.7602	0.1867	0.577904	0.928586486	0.764783924
		0.7811	0.1414	0.610117		
		0.7757	0.1533	0.60171		
		0.754	0.2439	0.568516		
Total		3.071	0.7253	2.358248		

4.3 Structural Model

Generally, against various types of a fit index is used to measure the degree of match between the hypotheses model with the data presented. The following are the results of the index testing compliance used can be seen in Table 3 below:

Table. 3
Goodness of Fit Index (GOFI)

Measure	Value	Requirement	Conclusions
RMSEA	0,08238	RMSEA \leq 0,08 = good fit RMSEA $<$ 0,05 = close fit RMSEA 0,08– 0,10 = marginal fit	Marginal Fit
NFI	0,8645	\geq 0,90	Marginal Fit
NNFI	0,8934	\geq 0,90	Marginal Fit
CFI	0,9034	\geq 0,90	Good Fit
IFI	0,908	\geq 0,90	Good Fit
RFI	0,8505	\geq 0,90	Marginal Fit
RMR	0,01541	$<$ 0,05	Good Fit
GFI	0,7610	\geq 0,90	Poor Fit

RMSEA is an index which used to compensate for the chi-square statistic in a large sample. RMSEA value shows a good of fit expected if the model estimated in population. The calculation results demonstrate the value of RMSEA is 0,08238. That means a model is accepted and include marginal fit. Furthermore, GFI value is 0,7610. That indicates the model is a poor fit. The level of acceptance model recommended if the value is greater than 0.9. RMR index represents the average value of all residual standards has a range from 0-1. The model has a compatibility value if that is a smaller than 0.05. In this research, RMR value shows of 0,01541, that including good fit. CFI value is recommended to be accepted if that is above 0.9. Based on the results indicate CFI index is 0,9034. It means it is a good fit. This

research shows the calculation of NNFI is 0,8934. It includes a marginal fit. NFI value is 0,8645. That means a marginal fit. IFIS value is 0,908, and it means a good fit and RFI value is 0,8505, including a marginal fit.

4.4 Hypothesis Testing

The cause and effect relationship analysis by measuring the t-value and structural equation coefficient and t-test value are greater than 1.96. The result shows in Table 4

Table. 4
The Result of Hypothesis Testing

Path	t-value	Conclusion
COI → IS	2,3396 > 1,96	Accepted
COI → ITP	2,2417 > 1,96	Accepted
PK → IS	1,2870 < 1,96	Rejected
PK → ITP	1,2544 < 1,96	Rejected
PI → IS	2,5981 > 1,96	Accepted
PI → ITP	2,0595 > 1,96	Accepted

5. DISCUSSION

Based on results in the table above as follow

The first hypothesis (H1) indicates the effect of the country of origin image on information search is accepted. This case shows t-test value is 2,3396 > t-table value 1.96. That means there is a significant effect on the country of origin image on information search. The result supports the previous research conducted Lin (2006) that shows the country of origin image has an effect on information search. The country of origin image affected the consumer perception about quality. This case is due to the information about the feature and source of products originated from the country. Also, consumer perceptions related to the characteristics of economic, political and culture in the certain country.

The second hypothesis (H2) indicates the effect of the country of origin image on intentions to purchase is accepted. This case shows the t-test value is 2,2417 > t-table value 1.96. That means there is a significant effect of the country of origin image on intentions to purchase. This results in line with the previous research were done by Lin (2006) that demonstrates country of origin image has an effect on intentions to purchase. Consumers will conclude the country's image is based on information about the product. When the country of origin image has a negative perception, consumers will have a negative image on a product originated from that country. Therefore, the image of the country of origin of the products has an important role during the purchase decision process. The third hypothesis (H3): the effect of product knowledge on information search indicate rejected. This case shows the t-test value is 1,2870 < t-table value is 1.96. That means there is not a significant effect of product knowledge on information search. The results contrary with the research of Lin (2006) that find consumer's knowledge on the product has a

positive and significant effect on information search. Consumers who have a less product knowledge will use the signal about the country of origin as indicators in the product information search. The fourth hypothesis (H4): the effect of product knowledge on intentions to purchase indicate rejected. This case shows the t-test value is $1,2544 < t\text{-table value is } 1.9759$. There is not a significant effect of product knowledge on intentions to purchase. The results were contrary to the research of Lin (2006) that find product knowledge has a positive and significant effect on intentions to purchase. Consumers will make the purchase decision after collecting all information about product and memories will as the role important to select the product. The fifth hypothesis (H5): the effect of product involvement on information search show accepted. This case shows the t-test value is $2,5981 > t\text{-table value is } 1.96$. There is a significant effect of the product involvement on information search. In line with the results of research Lin (2006) that found the product involvement has a positive and significant effect on information search. When consumers have involvement on the product increasing, the consumers will search for more information on products. The sixth hypothesis (H6): the effect of product involvement on intentions to purchase indicated accepted. This case shows the t-test value is $2,0595 > t\text{-table value is } 1.96$. There is a significant effect on the product involvement on intentions to purchase. In line with the results of research Lin (2006) that revealed the product involvement has a positive and significant effect on intentions to purchase. Consumers with the high product involvement, the correlation between attitudes and intentions to purchase the product has significantly higher than the low-involvement products

6. CONCLUSION

The influence of country of origin image has a positive and significance on information search and intentions to purchase. The influence of product knowledge has not significance on information search and intentions to purchase. The influence of product involvement has a positive and significance on information search and intentions to purchase.

The limitations of the research due to the authors only use the high involvement product. For the next research, the authors supposed to use the comparison of the high involvement and low involvement product categorized. The authors suggest that Lenovo can provide all information regarding the products feature within the proper media which increase the consumer knowledge during the product will be released. The company can embrace the customers to facilitate the media to exchange the information in social media and formed the user's community. The company can take advantage the Exhibition of Information and Communication Technology to make simple communicate directly with Lenovo company.

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IMPACT OF EXPORTS AND IMPORTS ON ECONOMIC GROWTH IN CASE OF PAKISTAN

Dil jan¹, Maaz Ahmad² and Saeed ullah³

^{1,2,3}MS Research Scholar, Department of economics Islamia College Peshawar

email;diljanecono@yahoo.com.

Abstract;

It is obvious that export and economic growth has a positive relationship, means that as export increases it lead to increase economic growth. The aim of this research study is to find out the impact of export and import on economic growth in the long run. The study has utilized a time series data that cover time period from 1981 to 2016. To check the stationarity of the data we have used (ADF) test ,after confirming that the data set is stationary ,the Auto regressive distributed lag Model (ARDL) or bound testing approach is applied to check the long run relationship among the economic variables. The result of this study shows that export has a positive impact on GDP growth in the long run. The import variable is negative but insignificant.

1. Introduction

International trade is playing an important role in the development of any country, since it offers different advantages to the trading economies of the globe. International trade makes it possible for the trading countries to set up friendly relationship with each other's. Liberalize trade has been the common observable fact for most of the national economies. The volume of international trade of an economy can be summarized by the combine effect of the macroeconomic policies. One can understand the impact of macroeconomics policies by analyzing the long run relationship among the economic variables. According to the classical economists, international trade is essential for the economic growth of any country. However, trade is a vehicle for the transmission of new ideas, technology, and managerial skills. The insight into the dynamic gains from trade is provided by a wide variety of theoretical models in the

tradition of endogenous trade theories.

The impact of trade policy, especially import substitution or export promotion, on growth and development has also been debated in the relevant literature. In 1950s and 1960s, most of the developing countries followed import substitution policies for economic growth, which stressed the developing countries to form their own style of development and control their own destiny by establishing domestically owned firms that could begin to produce for domestic production. Although it was recognized that in all likelihood there would be efficiency losses due to the production gains from increasing domestic production movement down the cost curve would more than offset these inefficiencies.

The export –led growth is a term used loosely to refer to a strategy that encourages and supports the production of exports. The export –led growth hypothesis postulates that economic growth can generate not only by expanding the amount of labor and capital within the economy but also by expanding export. In fact, exports are generally considered to affect positively to economic growth through different means: (i) facilitating the exploitation of economies of scale (ii) relating the foreign exchange constraint, (iii) enhancing efficiency through increase competition, and (iv) promoting the diffusion of technical knowledge. Moreover the growth of export plays an important role in the growth process. It relates a country to its balance of payment constraint by stimulating demand, encouraging saving, and capital accumulation .

As GDP is the combination of several categories of spending, including consumer spending investment and government spending. Exports of goods generate income at home and so they are a component of GDP imports on the other hand generate income abroad so they are subtracted from the actual producing. Higher exports and lower imports add to GDP, while lower exports and higher imports contract GDP.

The fiscal year 2008-09 has been considered crucial to the economy of Pakistan due to some economic and political events. Which are unexpectedly occurring on an internal and external level. The economic performance in the era of 2004 to 2008 was excellent in which economic growth has grown at an average

rate of 7% remained with 16% increase during 2003 to 2006.

Therefore the issue is that Pakistan's exports are highly concentrated on a few items in which cotton, leather, rice, textile, and sports goods, which account 72 percent share in the total exports during 2008.

As it is well known that the level of exports of a country represents an indicator of economic development .The relationship between exports and economic growth have been observed positively correlated. On the other hand the imports of goods negatively correlate with expansion in exports through various incentives such as export subsidies etc. numerous researches have been done to find the relationship among the export, import and GDP growth ,However, the results are mixed for both the developed and developing countries and the topic is still on the agenda among the researchers.

The aim of this study is to find out the correlation among the economic variables such as exports ,imports,and GDP growth. we are trying to investigate the weather exports ,imports FDI affect GDP growth or not ,we expect that exports is positively correlated with GDP whereas imports are negatively correlated.

Objectives of the study.

This study empirically, and basically investigate the long run relationship among the exogenous variables such as exports, imports ,and the endogenous variable GDP growth in case of Pakistan .For this our study has specified two main objectives and it as follows.

- To investigate the long run relationship between exports and GDP growth .
- To find out the impact of imports on GDP growth .

1.3 Hypothesis of the study.

- (1) Gross domestic product (GDP) or market size is positively related with exports in Pakistan .
- (2) Imports are negatively related with Gross domestic product or GDP growth in case of Pakistan

2. LITERATURE REVIEW

Many research studies have been conducted to examine the importance of exports ,imports and

FDI in the process of GDP growth and found that exports and foreign direct investment are positively related to GDP growth while imports are negatively related to GDP growth. (e.g Azam, 2011) examined time series data for the period of 1971 to 2009 ,during the study he used Augmented Dickey fuller (ADF) test to check the stationarity of the data and for cointegration analysis he used Johansson test of co integration .the result of the study shows that exports and FDI has a positive relationship with GDP growth. The coefficients of both variables are statistically significant it means that an increase in exports and FDI will lead to an increase GDP growth.

Atif,(2013) also investigated the determinants of GDP growth for the period 1980 to 2009 in case of Pakistan .ARDL approach to co-integration has been utilized for the estimation purpose. the results of the study shows that the coefficient of exports is significant, this shows that an increase in exports will enhance the growth of GDP .The coefficient of FDI is statistically insignificant. This shows that on average foreign direct investment is not a problem in pakistan during long run period under the study.

Muhen-un-Din (2007) has examined the export-led growth hypothesis for the five largest economies of the south Asian regions using a multivariate time series framework. The south Asian countries represents an interesting case study in View of their increasing outward orientation and adoption of exports promotion policies as part of their growth strategies. the results of the study shows that there a log run relationship among exports, imports and GDP growth in Pakistan and Bangladesh , however for India, Nepal and Sri lanka no evidence for long run relationship among the corresponding variables is found.

Azam et.all (2010) investigated the relationship between exports and economic growth in Pakistan by using time series data for the period 1971 to 2009.The results of the least square indicated strong positive relationship among exports ,FDI and GDP growth. The impact of exports and FDI on economic growth during the study is statistically significant .The positive impact of export demonstrates that the expansion of exports is highly important for accelerating economic growth in a country

Alam (2008) has investigated the export –led growth hypothesis in case of Pakistan .The data used for estimation is quarterly time series data from 1971 to 2007 .The research study has used co-integration and error correction model to check the relationship among export, import and GDP growth. The ADF test was

used for checking the stationarity of the variables and the variables are stationaty at first difference .The results of the study shows that for a country it is important to increase their exports because export and GDP growth is positively related to each other .during the he also found a positive relationship between import and GDP and suggested that the should take positive steps to increase both exports and imports the enhance GDP growth.

Zaheer et,all.(2014) has investigated the impact of export ,import on GDP in case of Pakistan by utilizing time series data for the period 2000 to 2010. Johansson co-integration was used to estimate the data empirically and ADF Test was applied to check the stationarity of the data. During the study the coefficients of export and import are found statistically significant and concluded that there is a strong correlation among the variables under consideration.

Majeed .et.all.(2012) has examined the granger causality between economic growth ,export, and import in case of Pakistan for the period 1976 to 2011. Granger causality and co-integration were employed in the empirical analysis . ADF test were used to check the stationarity of the data .Johansson and Juselius test of co integration were used to determine the presence of co integration vectored among the variables . Both trace and Max-Eigen values indicated on co integration among the variables ,indicating that there is no long run relationship among the variables under consideration. To determine causality among the variables at least in the short run, the Granger causality test was carried out. GDP was found Granger cause to export and export does not Granger cause to GDP at 10% level of significance.

Hatemi (2002) studied casualty between exports, imports and economic growth in of japan . The study utilized granger causality test using the bootstrap simulation technique. The result show that the Granger causality is bidirectional, means that the expansion of export is an integral part of economic growth. However ,they point a causal relationship between internation trade, export and economic growth.

Khan S.A. et.al. (2013) has investigated the import demand and its determinants in case of Pakistan by using an annual time series data for the period 1981 to 2009. The Engle Granger and bound tests were utilizes to investigate the long run relationship between the economic variables. The empirical findings conform long run relationship and shown that the expenditure components are all important determinants

of the total imports demand for Pakistan.

3. DATA SOURCES AND DISCRIPTIONS

This study uses an annual time series data for the period 1989 to 2011. Variables of the study are in millions of rupees the data majorly collected from the following data sources.

- 1) Pakistan economic survey.
- 2) Handbook of statistic, October 2010, publication of state bank of Pakistan.

GDP – is the gross domestic product a proxy for market size. The data for GDP is in millions of rupees
 EXP- is the total export .The data for exports is in millions of dollar and converted to millions of rupees
 i.e. rupee price of dollar.

IMP- is the total import. The data for imports is in millions of dollar and converted to rupees.

4. MODEL AND METHODOLOGY OF THE STUDY

Model of the study

This research study uses the time series data over the period from 1981 to 2016. The data are taken from the economic survey of Pakistan and handbook statistic publication of the state bank of Pakistan. The main objective of this study is to find out the impact of export, import and on economic growth (GDP). On the bases of the pervious literature this study uses gross domestic product or GDP as a responsive variable and export, import as independent variables.

Since the objective of this study is to check the dependence of gross domestic product / per capita income growth of different factors as stated above. This study uses descriptive statistics to show the overall picture of the variables and also uses co-integration approach to find out the effect of those variables on economic growth.

Specification of the model

According to Majeed et.al (2013) that in the process of economic development the growth of GDP is very important for any country. In their research studies they concluded that export , import are also

very important factors that affects GDP growth. The results of the study shows that import and export both are granger cause to GDP growth. Similarly Zaheer et.al.(2014) concluded that exports and imports are the key variables affecting economic growth in the long run. In the light of the above mentioned studies this research study utilizes the following model.

$$GDP = f(\text{Export, import}) \quad (1)$$

By taking log of the above model we have the final econometrics model as follow.

$$\text{LnGDP} = \beta_0 + \beta_1 \text{lnexp}_t + \beta_2 \text{lnimp}_t + \mu_t \quad (2)$$

Where

GDP=Gross domestic product a (proxy for market size)

Exp= Total exports

Imp = Total imports

μ = white noise error term

t = for time period

We expect that the coefficients of export would be positive and the coefficient of import would be negative.

Methodology of the study

This study uses gross domestic product (GDP) export, and import to estimate the specific regression of equation (2).all the data for selected variables are available over time ,thus all the variables are time series. Therefore, it is essential to test the stationarity of the data in advance of the co-integration analysis To know about the nature of the data we have executed the descriptive statistics. In short all the econometrics methods and approaches are adopted for empirical analysis of the study as follows.

Descriptive statistics

This set of analysis gives a complete summary statistics for the data series in the study. By the summary statistics we can show the complete picture of the variables in the study .descriptive statistics

includes information about mean, median, maximum, minimum and the standard errors of the variables . summary statistics are calculated by using the statistical software Eview-6.

Unit Root test

There are many tests that are used by the researchers to test the unit root of the variables .This study utilizes Augmented dickey Fuller (ADF) test for the unit root of the variables. For the analysis of the time series data it is necessary to test for the unit root of the variables in advance of the co-integration. The test equation and hypothesis are as given.

$$\Delta y_t = \beta_0 + \beta_1 t + \gamma y_{t-1} + \sum_{i=1}^p \Delta y_{t-i} + \mu_t \quad (3)$$

The test hypothesis related to the coefficients of the level lagged dependent variable i.e. γ in present case. The test takes the null hypothesis and Alternative hypothesis as given.

Null hypothesis: $\gamma = 0$, (unit root)

Alternative hypothesis: $\gamma \neq 0$, (no unit root)

If the estimate of the coefficients are significantly difference than zero , it means that we reject the null hypothesis and accept the Alternative. The acceptance of the Alternative means that the series is stationary at level. The stationary variables have constant mean, variance, and covariance .If we accept the null hypothesis at level , the variables are said to be integrated first order or non-stationary at level.

Co-integration Approach

Since unit root analysis we can proceed with co-integration tests . We are interested in the long run relationship among the economic variables such as gross domestic product, export, For this co-integration test is an appropriate method. In this study we have utilized Auto regressive distributed lag model ARDL test for the purpose of analysis. The ARDL approach to co-integration based on three steps to test for the long run relationship between dependent and independent variables. To begin the analysis, first employ the error correction representation of ARDL as follows.

$$\Delta \ln GDP = C + \sum \alpha_i \Delta \ln GDP_{t-i} + \sum \beta_i \Delta \ln EXP_{t-i} + \sum \gamma_i \Delta \ln IMP_{t-i} + \delta_1 \Delta \ln GDP_{t-1} + \delta_2 \Delta \ln EXP_{t-1} + \delta_3 \Delta \ln IMP_{t-1} + \mu_t \quad (4)$$

After the OLS results for error correction in the equation no (2), the wald test is tested against the the coefficients of the level lagged variables. The test assumed the Null and Alternative hypothesis as ,

$$H_0 = \delta_1 = \delta_2 = \delta_3 = 0 \quad (\text{no co-integration})$$

$$H_A = \delta_1 = \delta_2 = \delta_3 \neq 0 \quad (\text{co-integration})$$

The study of pesaranetal (2001) provides a set of lower and upper bound critical values. If the value of F statistics is greater than the upper bound critical value means that the variables are co-integrated and if the value of F statistic is lower than the lower bound critical value than there is no co-integration among the variables under consideration.

Once the presence of co-integration is being conformed than one can proceed to investigate the long run coefficients and in the third stage the error correction term of ARDL model.

The general model of ARDL of GDP growth, export and import and the error correction representation of ARDL can be developed as follows.

$$\ln GDP = C + \sum \alpha \ln GDP_{t-1} + \sum \beta \ln EXP_{t-1} + \sum \gamma \ln IMP_{t-1} + \mu_t \quad (5)$$

$$\Delta \ln GDP = C + \sum \alpha_i \Delta \ln GDP_{t-i} + \sum \beta_i \Delta \ln EXP_{t-i} + \sum \gamma_i \Delta \ln IMP_{t-i} + Ect_{t-1} + \mu_t \quad (6)$$

In the equation no (6) the Ect_{t-1} is the lagged of residual form the long run results in the equation no (5).

In all the three equations the common thing is the order of lags. Thus to select the lag length we have used the Schwarz Bayesian Criteria (SBC) in all cases.

5. THE EMPIRICAL ANALYSIS ;

Descriptive statistics

Before we proceed to unit root and co-integration analysis , here reports descriptive statistics which provide the basic information about the characteristics of each variable. Table no 1 presents the summary statistics of the variables over the study period .

Table no 1;

Variables (in log)	Mean	Median	Maximum	Minimum	Std.dev
GDP	15.06616	14.98015	17.63658	14.11293	0.716314
Export	13.68792	13.66085	15.25627	12.43941	0.824188
import	14.05373	13.86196	15.25627	13.20708	0.717745

Keeping in mind the objective of the study , the above table presents the idea about the relationship between dependent and independent variable. The above table no 1 shows the summary statistics of the variables in the study period .

Unit root results

This section contains the results of the unit root tests. In time series analysis it essential to test for the unit root of the variables under consideration in the study period in advance of the co-integration analysis. ADF test is used to test the time series properties of the data i.e. to find the order of the integration and differentiate either the variable is stationary or non -stationary. The test null hypothesis assume unit root in the series while the alternative hypothesis assume no unit root in the series. The rejection of the null hypothesis means that the series is stationary . Table no 2 presents ADF results at level and at first difference.

Table no 2;

Variable (in log)	At level		At first difference	
	Test-statistics	p-values	Test-statistics	p-values
IMPORT	0.288359	0.9741	-4.427113	0.0014**
EXPORT	0.607731	0.9878	-5.522740	0.0001*
GDP	0.785217	0.9921	-3.454308	0.0296***

Co-integration results;

In our analysis we took two variables as explanatory variables. We took gross domestic product (GDP) as a dependent variable . The two explanatory variables explained 88% variation in the dependent variable. The value of F- statistics is greater than the upper bound critical values of pesaran et.al.(2001) at 5% percent level of significance. As the value of F-statistics is greater than the upper bound value ,we can conclude that there is evidence of long run relationship among the variables under consideration.

Table no 3

Dependent variable D(LNGDP)				
variables	coefficients	Std.Error	t-statistics	prob
C	6.889923	3.225937	2.135790	0.0452
D(LNGDP(-1))	1.324155	0.393655	3.363741	0.0031
D(LNEXP)	0.133982	0.261412	0.512532	0.6139
D(LNEXP(-1))	-0.684428	0.339330	-2.016995	0.0573
D(LNEXP(-2))	0.802468	0.298084	2.692088	0.0140
D(LNIMP)	-0.037154	0.264972	-0.140218	0.8899
D(LNIMP(-1))	-0.147471	0.262453	-0.561894	0.5804
D(LNIMP(-2))	-0.582419	0.266375	-2.186464	0.0408
LNGDP(-1)	-0.229163	0.485142	-2.533617	0.0198
LNEXP(-1)	0.742638	0.324877	2.285907	0.0333
LNIMP(-1)	-0.078471	0.051530	-1.522826	0.1560
R squared = 0.88		F-statistic=8.54		
F-statistic	Value 4.4217		Prob 0.0285	

The regression results in the table no 1 are of dynamic nature and not represent the long run estimates. Therefore the normalized long run results are derived from the above regression and in equation no (7)as following.

$$\text{LnGDP} = 6.88 + 3.24\text{LNEXP} - 0.117\text{LNIMP} \quad 7$$

The most significant factor in deterring the economic growth in Pakistan is export ,which has an estimate elasticity 3.24 , shows that in the long run a 1% increase in export will lead more than one percent increase in economic growth. The coefficient of import is negative but insignificant means that import does not affect economic growth in the long run.

Error correction representation

Short run effects are computed by the coefficients of the first differenced variables in equation no . (6)To examine the shot-run dynamics of the model , by estimating the ARDL error correction representation of the equation no .estimates of the error correction representation of ARDL are given bellow as

Table no 4

Dependent variable Dln(GDP)				
C	0.002601	0.012916	0.201408	0.8435
D(LNGDP(-1))	0.935190	0.268849	3.478492*	0.0041
D(LNEXP)	0.014697	0.007156	2.053821***	0.0607
D(LNEXP(-1))	0.012061	0.006660	1.811004	0.0933
D(LNEXP(-2))	-0.005268	0.007229	-0.728718	0.4791
D(LNEXP(-3))	0.013616	0.007096	1.918913***	0.0772
D(LNIMP1)	0.084656	0.034151	2.478908**	0.0277
D(LNIMP1(-1))	-0.102573	0.034247	-2.995125**	0.0103
D(LNIMP1(-2))	0.004271	0.025382	0.168257	0.8690
ECT _{t-1}	-0.865103	0.389711	-2.016058**	0.0215

In the above table *.**.* represents the level of significance at 1 % 5, and 10% level significance respectively .

The above table represents the results of the error correction term .The coefficients of the Error correction term (ECT) is used to measure the speed of adjustment in the model. Most of the coefficients of the variables are significant. However the coefficient of residual lagged variable is significant at 5% level of significance . The value of ECT is (-0.865103) which indicates that the economic growth after short run deviation return to its log run equilibrium with a speed of 86 percent.

Diagnostic test;

In this test we check the problem of autocorrelation in the model . if there is any relation among the error term than there will be the existence of autocorrelation in the model. For checking autocorrelation the most of the researcher uses serial LM correlation test .our model shows no autocorrelation and on Hetroscedaticity.

Table no 5

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2.875007	Prob. F(2,9)	0.1083
Obs*R-squared	8.576284	Prob. Chi-Square(2)	0.0137

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.219599	Prob. F(10,11)	0.7882
Obs*R-squared	7.731119	Prob. Chi-Square(10)	0.6551
Scaled explained SS	2.473626	Prob. Chi-Square(10)	0.9913

Stability diagnostic taste;

For parameters stability check our study apply the CUSUM and CUSUMQ tests, suggested by Brown et al. (1975). In visual the test results can be plotted against the critical bounds in figure. The test statistics within bound indicate stability is parameters, while outside the bound instability. The CUSUM test results have shown in Figure 1 and CUSUMQ test results in Figure 2

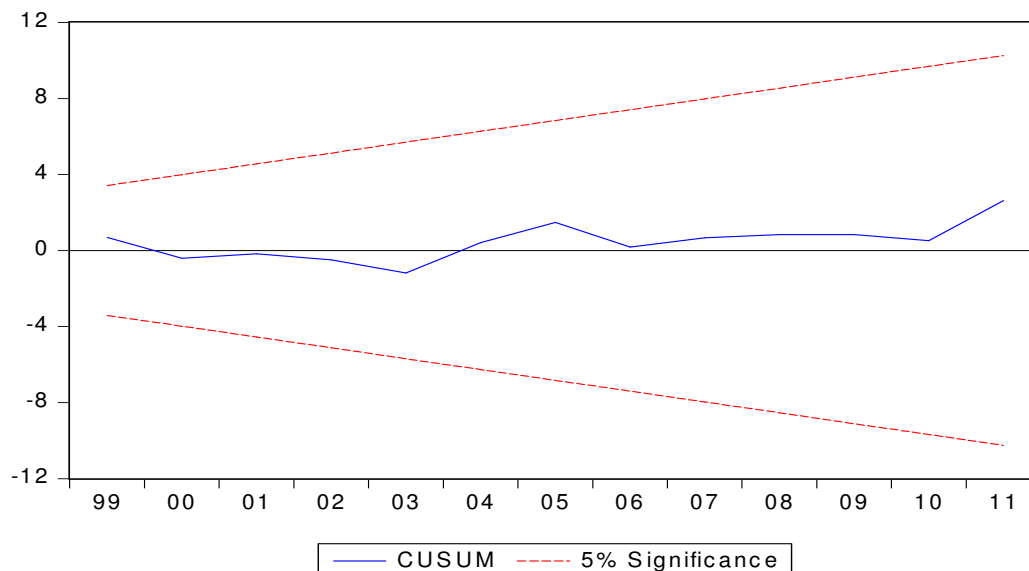
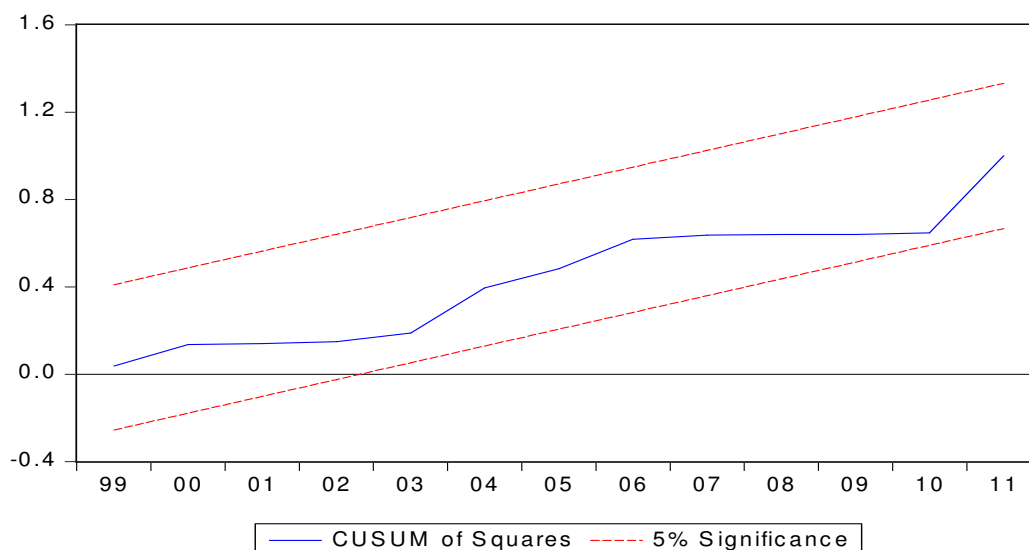
Figure 1: Plot of CUSUM Test Statistic


Figure2: Plot of the CUSUMQ Test Statistic



In the above both figure 1 & 2 the blue lines shows the test results and red line critical bounds .in the figure we can see the both blue lines neither touch the upper bound and nor the lower bound , indicates the structural stability of the parameters.

CONCLUSION

This study has investigated the impact of export and import and GDP growth in case of Pakistan .the study has utilized time series data for the period 1989 to 2011. For the purpose of analysis the study used Augmented Dickey fuller to test the stationarity of the data. To investigate the long run relationship among the variables under consideration the test of co-integration named as Autoregressive distributed lag Model (ARDL) or ARDL bound test to co-integration has used. The results of the study are according to our expectation; the coefficient of the export is positive, which indicates that economic growth and export are positively related. So on the bases this study , we conclude that to enhance a country's economic growth it is necessary to increase export and facilitate the export sector. During the study the coefficient of import is negative but insignificant.

The results of the study strongly support a long run relationship between economic growth and export. In fact export is the most significant factor to enhance economic growth and can play important role in the development process of any country, so it is necessary for any country to increase export in order to

increase economic growth in the long run. Moreover export increase economic growth through access to the world market and hence the economies of scale. Increase in export also increase employment opportunities in the economy. Therefore it is suggested that Pakistan may continue with imports of necessary raw material and technology in order to expand capacity and improve productivity for the purpose of enhancement of exports.

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TOTAL QUALITY MANAGEMENT AND ORGANIZATIONAL PERFORMANCE: A PROPOSED MODEL ON THE MODERATING EFFECT OF TECHNOLOGICAL TURBULENCE.

Waniko Ebenezer Ndabako

School of Entrepreneur and management Studies, Federal University of technology, Minna.

Taofik Abidemi Bello

Najeemdeen Shiyanbade Iliyasu

School of Business management, College of Business, University Utara Malaysia.

Abstract

The study presents a model which depicts the moderating effect of technological turbulence on the relationship between total quality management and organizational performance. A review of related literature brings about the proposed conceptual model. From the conceptual model, it is impact will be stronger when technological turbulence is supportive and taken in to consideration by Nigerian banking industry. Firms that harness opportunities that evolves in the external environment in terms of change in technology have an opportunity in attaining competitive edge and improving performance of their organizations more efficiently and effectively than competitors.

Key words: total quality management, performance, technological turbulence, competitive edge.

Introduction

The banking industry is an important pillar for any economy. It is a step to the economic development of any nation due to the financial services which they provide to the people. The efficient of effective functioning of the commercial bank indicates the financial stability of the country (Kolapo, Ayeni et al. 2012). The rate at which the banking industry provides loans to the public to aid industrialization and small scale business aids in improving the growth and economy of the nation.

A review of literature indicates that organization that employ total quality management can achieve superior organizational performance. For this reason it will be important to look at practices of total quality management in relation to improving performance of Nigerian banks.

A review of literature reveals that the relationship between total quality management and organizational performance has been studied. Some researchers revealed a positive relationship between total quality management and organizational performance (Claver and Tarí 2008, Vanichchinchai and Igel 2011, Morgan 2012, Morgan, Katsikeas et al. 2012, Jiménez-Jiménez, Martinez-Costa et al. 2015, Zeng, Phan et al. 2015). Some studies revealed non- significant relationship between total quality management (Kober, Subraamanniam et al. 2012). Due to variations in the results on marketing capabilities and organizational performance necessitates the introduction of a moderating variable in other to strengthen the relationship

that exists between marketing capabilities and organizational performance.

Researchers have also examined the moderating role of technological turbulence on organizational performance which is a dimension of external environment (Chavez, Yu et al. 2015, Najafi-Tavani, Sharifi et al. 2016, Zulu-Chisanga, Boso et al. 2016). The present study focus is on technological turbulence. Technological turbulence as a moderating variable is important due to the frequent change in the mode of doing business due to the advent of rapid change in technology over a short period of time. Previous researchers focused on competitive intensity and market turbulence while neglecting the effect of technological turbulence as a moderating variable (Trkman and McCormack 2009). The present study proposes the use of technological turbulence as a moderating variable in other to strengthen the relationship that exists between total quality management and organizational performance. Moderators helps in strengthening and clarifying misleading relationship on the relationship between total quality management and organizational performance.

The present study adopts contingency theory and resource base theory in understanding the role of technological turbulence on the relationship between total quality management and organizational performance in Nigerian banking sector. Previous theories such as scientific management theory by Frederick Taylor and theory by Max Weber known as Bureaucracy theory focused more on the internal resources of a firm (Pheng and Shang, 2011). According to contingency theory, an organization performs optimally when their structure is targeted to face contingencies imposed by size, technology and environment in which the firm operates (Donaldson 1995, Donaldson and Preston 1995, Otley 2016).

The basic premise of contingency theory is understanding how organizations align their performance with both external and internal environment (Homburg, Hoyer et al. 2002, Holm, Kumar et al. 2012). The theory assumes that for an organization to improve its performance and attain profit in terms of improve financial performance, it must be cognizant to what happens in the external environment (Abidemi, Halim et al. 2017). The theory emphasizes on under and which contingency variable helps in achieving improved financial performance. Hence, organizations should not only focus on improving internal resources, acquiring resources, or developing resources but should also pay attention on enhancing its capabilities so as to cope with what happens externally (external environment).

Contingency organization can achieve competitive edge by studying their external environment and implement specific strategies that is appropriate in tackling the contingencies in the external environment (Johannesson and Palona 2010). That is organizations have to interact with its environment. Hence, contingency theory state how an organization behaves in other to survive.

Organizations are referred to as contingency based when they adapt to business environment in situations like choice of innovation in dealing with engineering issues (Puranam, Alexy et al. 2014). Technological turbulence which makes previous technologies used by a firm obsolete allows organizations to achieve an edge by taking advantage of latest technologies which creates new opportunities to leverage on by organizations and further leads to superior organizational performance (García-Villaverde, Ruiz-Ortega et al. 2013).

The resource base theory states that for a firm to achieve competitive edge in needs to recruit resources (Penrose). Resource are assets, capabilities and information which is owned and controlled by the firm in tackling and implementing strategy (Barney 1991). According to the resources base theory, the two basic concepts which organizations need to achieve competitive edge and achieve superior performance are known as resources and capabilities (Bell and Figueiredo 2012).

The purpose of the paper is to present a conceptual framework that shows the moderating effect of technological turbulence on the relationship between total quality management and organizational performance of Nigerian banks. The proposed model will show the moderating effect of technological turbulence on the relationship between total quality management (TQM) and organizational performance which will be developed and explained. The other sections of the conceptual paper reviews literature on total quality management, technological turbulence and organizational performance so as to formulate prepositions showing the relationship between the variables under discussion. Finally, the proposed methodology, conclusion and implication of the study will be discussed.

Literatutture review

Total quality management

Organizations that places emphasis on quality stand a competitive edge because quality is a significant driver of success in today's competitive environment (Demirbag, Tatoglu et al. 2006). Organizations that attains favorable market position need to place emphasis on effective strategies such as total quality management. Total quality management refers to a management approach that places emphasis on continuous improvement in all business operations or organizational functions in other to produce or offer services that satisfies the needs and expectations of customers (Demirbag, Tatoglu et al. 2006). In other words, total quality management aims at improving organizational performance and also offers improve quality in catering for customer's needs (Kaur, Singh et al. 2012). In the past, TQM was mainly used in manufacturing industries but lately it is being applied to the service sectors since it has been recognized as a primary driver in achieving competitive edge and improving performance (Subrahmanya Bhat and Rajashekhar 2009, Talib, Rahman et al. 2011). Furthermore, TQM can assist mangers in managing the affairs of their organization and improve performance (Konecny and Thun 2011).

Similarly, a critical review of literature revealed that the relationship between TQM and performance has been studied and examined. Nonetheless, majority of these studies were conducted in developed countries, the result may vary from developing nations such as Nigeria due to different context and different cultures. In the same vein, the results of TQM and organizational performance varies but majority of the studies signifies a significant positive relationship between TQM and organizational performance (Yeung and Chan 1998, Hendricks and Singhal 2001, Arumugam, Ooi et al. 2008, Miyagawa and Yoshida 2010, Corredor and Goñi 2011, Gunday, Ulusoy et al. 2011, Talib, Rahman et al. 2011, Al-Swidi and Mahmood 2012).

However, some studies also revealed insignificant relationship between TQM and organizational performance such as (Hendricks and Singhal 1996, Shin, Kalinowski et al. 1998, Prajogo and Sohal 2004, Kannan and Tan 2005, Kober, Subraamanniam et al. 2012). Due to this inconsistent relationship it is

pertinent to carry out another study in examining the relationship between TQM and organizational performance relationship in the context of banking sector in Nigeria where there lack of empirical evidence (Meftah Abusa and Gibson 2013).

Thus, it is proposed that TQM as a positive relationship on organizational performance in Nigeria banking industry.

Technological turbulence as a moderator

For a better understanding of the varying situation in which total quality management as an effect on financial performance requires contingency factor that emphasizes the various level of technological turbulence. External environment usually as an effect on independent variables there by altering their impact on financial performance in the context of contingency. Previous researchers have also acknowledges that that external environment acts as a moderating variable (Zhang and Duan 2010, Wang and Fang 2012, Navarro-García, Arenas-Gaitán et al. 2014).

Technological turbulence provides an avenue in which firms can seek and collect information from customers on how to better serve them through the use of social media (Risselada, Verhoef et al. 2014). Information technology provides an avenue for organization to develop capabilities in various fields such as product development, marketing strategies, innovation and mergers and acquisitions (Schilke 2014). An organization that seeks out new technologies can provide valuable services to customers and offers new innovation since previous technologies becomes obsolete (Betta, Jones et al. 2010). The use of technological turbulence as a moderating variable gives an insight on the importance of information technology to organizations (Cao and Zhang 2011, Abidemi, Halim et al. 2017). Technological turbulence leads to achieving success when other organizational factors such as total quality management are combined together. Technological turbulence is seen as a moderating variable which leads to increase in financial performance through organizational factors that is known to be resource dependent. An organization that invest heavily in technological turbulence such as the banking industry as the chance of gaining information about prospective customer's needs, which leads to creating superior services to cater for the needs and also provides market for their services (Zhang and Duan 2010). Organizations that leverages on information technology stand a better chance of improving performance and increasing market share (Lin and Wu 2014).

Furthermore, total quality management inclined firms seek new technologies so has to improve the quality of service provided to their customers. Technological turbulence provides an avenue for banks to adapt to market and technological changes, organizations that fails to adapt to changes or respond adequately to new opportunities has led to their failure or demise of these firms (Kumar, Jones et al. 2011). Hence, technological turbulence moderates the relationship between total quality management and organizational performance.

Total quality management, technological turbulence and organizational performance

Business firms are set up for the sole purpose of making profit. Performance can be measured objectively using financial reports or subjectively using manager's perception (Abidemi, Halim et al. 2017).

Subjective measures of organizational performance reflect measures that are directed at firm's key informants such as managers, chief executive officers, directors and marketing managers (Wall, Michie et al. 2004). It has been argued that objective measurement of performance is a lag measure because it is based on past events and only measures a single indicator unlike subjective measures which is based on the present event and can measure various indicators (Dess and Robinson 1984, Wall, Michie et al. 2004). Organizations such as the banking sector can improve its performance and attain competitive edge by improving the quality of its services which is an internal resource of the firm and align its resources properly with that of the technological environment (Abidemi, Halim et al. 2017).

Previous empirical evidence has demonstrated and acknowledged that total quality management is one of the most important strategies which organizations can use in retaining and gaining customers and improve performance of such organizations measured in terms financial and non-financial performance.

In the same vein, review of literature shows that technological turbulence can moderate performance outcomes in varying conditions (Cruz-González, López-Sáez et al. 2015, Abidemi, Halim et al. 2017). Technological turbulence is an important dimension of external environment which has not received much attention from researchers unlike market turbulence and competitive intensity which is used frequently in research (L. Sanders Jones and Linderman 2014, Tsai and Hsu 2014, Bai and Chang 2015). Organizations that adapts the latest technology attains competitive edge over competitors and also improve organizational performance (Tsai and Yang 2014). That is organizations that adopts change in technology stand a chance of meeting customer's specification and achieving customer satisfaction which leads to improved organizational performance.

A review of related literature showed that technological turbulence helps marketing firms in attaining competitive edge by offering superior products and improved quality of services (Calantone, Garcia et al. 2003, Fernández, Del Rio et al. 2010). Similarly, it has been revealed that technological turbulence has both positive and negative impact on organizational performance activities (Kohli and Jaworski 1990, Jaworski and Kohli 1993, Chavez, Yu et al. 2015, Cruz-González, López-Sáez et al. 2015). The rapid change in technology creates new offerings in the market place thereby making available technology obsolete (Tsai and Yang 2014) . Organization that implement total quality management in their firms and implements and monitor it and leverages on latest technologies so has to better satisfy prospective customers leads to superior organizational performance and improved quality of services by harnessing latest technologies. It is imperative to note that organization planning and decision making is contingent on the external environment (Wiklund and Shepherd 2005, Mohamad, Ramayah et al. 2011). Internal organizational resources and capabilities are what firms use in tackling opportunities in the external environment.

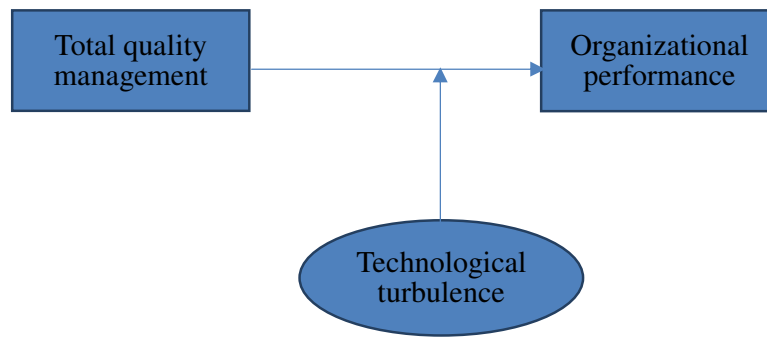


Figure 2.1 conceptual model

Proposed conceptual model

As mentioned previously, the aim of the paper is to present a model which shows the relationship between total quality management, technological turbulence and organizational performance. A review of the literature brings about the proposed model. The model depicts the moderating effect of technological turbulence on the relationship between total quality management and organizational performance. The thick line depicts direct relationship while the thin line shows the moderating variable. The proposed model reveals that the relationship between total quality management and organizational performance is contingent on the moderating variable which is technological turbulence. In the same vein, the proposed model shows that technological turbulence as an influence on total quality management and organizational performance.

Conclusion

The study presents a model that shows the moderating role of technological turbulence on the relationship between total quality management and organizational performance. A review of related literatures reveals that total quality management leads to improved organizational performance. Similarly, technological turbulence is an antecedent to organizational performance. The proposed conceptual frame work reveals that banking industry can seek opportunities in the external environment by adapting to change in the technological environment so as to provide improved services to its customers at a faster rate than those of competitors, provide improved quality of services to customers more efficiently than competitors (Bello and Alshaubi 2017).

Organizations that makes use of the latest technologies can achieve superior organizational performance, retaining and attracting customers than organizations that fails to adopt new technologies and provide superior services quality to customers. Nigeria banking industry needs to focus on improving its total quality management efficiently, effectively and make use of available resources efficiently so as to attain competitive advantage and also improve performance of the sector. By leveraging on new technology makes previous technology obsolete, which makes firms to be able to cater for the needs and wants of customers at a more reliable and faster pace. Organizations have to align its resources and capabilities with those of the external environment in terms of change in the way of doing things or change in

technology so as to gain competitive edge and offer superior services to customers. It is important to harness technology with organizational capabilities. The present study aims to fill the gap in the literature by studying technological turbulence as a moderating variable on the relationship between total quality management organizational performance in Nigerian banking sector. The implication of the conceptual model is that managers have to emphasize on quality of services in order to gain competitive edge and achieve improved organizational performance. It also implies that for organizations to achieve success in the market place, they have to leverage on opportunities which is presented in the external environment.

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DOES OPTIMISM AND WORK ENGAGEMENT MATTER TO IMPROVE JOB PERFORMANCE? AN EMPIRICAL STUDY

Muhammad Naveed Jabbar¹

Ph.D. Scholar

University of Utara Malaysia

m.naveedjabbar@gmail.com

Muhammad Nawaz^{2*}

(Corresponding author)

Ph.D. Scholar (Business Administration)

National College of Business Administration & Economics

m_nawaz_progrogressive@yahoo.com

+923217060417

Faisal Ur Rehman³

M.Phil. (Business Administration)

National College of Business Administration & Economics

faisal.rehman@lcwu.edu.pk

Ghulam Abbas Bhatti⁴

Ph.D. Scholar (Business Administration)

National College of Business Administration & Economics

abbas.haidar7@gmail.com

Anum Choudhary⁵

anumchoudhary@hotmail.com

ABSTRACT

This study was conducted to find out the impact of optimistic behavior and work engagement on the job performance of the employees. Population was comprised of teachers from private universities. There were 284 (experienced were 144, inexperienced were 140) respondents which were selected by simple random sampling technique. Optimism, work engagement and employees' job performance were main variables in this study. It was found that academic staff from universities put their efforts to improve the quality of service in the academic and non-academic activities so that they may swiftly respond the target, and foster a stronger relationship with their adjoining economic and productive system. To provide a wide analysis about the impact of optimism and work engagement on employees' job performance through

employees' naked eyes was the originality of this study.

Keywords: Optimism, Work engagement, Employees' job performance

1. INTRODUCTION

Teacher's job performance is considered as the most important element behind the educational developments throughout the world. There is need of sense of accountability and honor to work hard during job hours which is based on the teacher's optimistic approach towards work engagement. It imposes behavioral patterns that keep in line with the nature of work. Optimism and work management provide opportunities for teachers to acquire autonomy in their work. Teachers' optimism ensures a range of benefits to the institution including: improvement of job performance through their extra work engagement. It eventually helps in achieving a privileged position for the organization to create the competitive environment.

As per self-determination theory (Monk, 1994), employees' behavior is an important variable. Social exchange theory (Nash, 2008) found that employees who receive benefits from their organization, perform their duties well and their work engagement upturns. The main focus of this study is to explore the impact of employee engagement and optimism on job performance. Employee engagement has a vital role in the growth of a business organization (Lzumi, 2002). Work management builds the confidence in the employees for the effective performance (Irving & Meyer, 1999). Work management helps the employees to create their good reputation for a competitive environment during working hours (Locke, E. 1998). Optimistic behavior of the employees affect them to be more associated with that organization which is involved in employee management activities (Rivkin, 2005). If we narrate the objectives of the study then following points will be considered as most important;

1. To find out the relationship among optimism, work engagement and job performance.
2. To investigate the difference of opinion of the teachers as less experienced and more experienced teachers.
3. To investigate the difference of opinion among teachers regarding their qualification.

2. REVIEW OF THE LITERATURE

Work Engagement

Work engagement has been popular within human resource engagement study. Work engagement is a process to ensure employees' focus in achieving the organization's mission (Ashton, 1996). Work engagement means to plan work in advance so that expectations and goals can be achieved more effectively.

Optimism

Optimism is a source to create the best environment for the completion of organizational objectives. Optimistic approach enables employees to perform heartedly which may result in best performance (Bajah, 1979). Optimistic approach develops the best level of performance of the employees through inner motivation (Wilson, 2001). Optimism effects workplace performance positively (Hart, Oliver & Bengt Holmstrom, 1987).

Job Performance

Maslow's hierarchy of needs theory (1943) explored that the focus on the employees' need enhances the growth of production. Interpersonal behavior, clear job discrepancies, work environment and compensation can play a vital role in the best performance of the employees. This may be the first use of discrepancy theory in personnel engagement. Since then, numerous organizational researchers have proposed discrepancy theories of pay and job performance (Fetler, M. 1999).

According to Ferguson & Ladd, 1996, every business organization laid stress to adopt the best attitude towards the customers for the completion of their common goals. Job description is not directly related to the employees' behavior and attitude but it may be the stepping stone for the effectiveness of the performance (Laffaldano & Muchinsky, 1985). Job performance is a pleasurable or positive emotional state which has emotional, cognitive, and behavioral components (Locke, E. A. 1976). Optimism and work management has positive relationship (Champoux, 1992). Job discrepancies and work environment play a vital role in the better performance of the employees (Xie & Johns 1995).

Environment and transformational behavior of the leadership provides the effective outcome (Cooper & Artz, 1995). When professional growth and commitment becomes one's energy then it automatically brings willingness and confidence in teachers to take active part for the betterment of their performance (Njeru & Orodho, 2003). Shapiro and Wahba, (1978) proposed that leadership plays a vital role in the establishment of freedom. The leader-employee relationship regarding empowerment is to get practically engaged in the best performance while following the systematic process (Adu & Olatundun, 2007).

3. RESEARCH METHODOLOGY

In this study the independent variable is optimism, work engagement and dependent variable is employees' job performance at higher education level. The study is descriptive in its nature. The private university teachers were the population of the study. 284 respondents were selected by using simple random sampling approach. Survey method was adopted for data collection. Reliability of the scale was checked by using Cronbach's Alpha which was .867. Response rate was 81%.

DATA ANALYSIS

Descriptive Analysis

<i>Statements</i>	<i>M</i>	<i>SD</i>
Optimism	3.91	.63
Work Management	3.93	.58
Job Performance	3.87	.80

Overall Mean= (M= 3.90, SD= .67)

Mean of the statements regarding optimism, work management and job performance promoted by the university teachers is ranging from M= (3.87-3.93), SD= (.58-.80) and total (M=3.90, SD=.67). It was found all the statements shown satisfied.

Independent Sample t-test between more experienced (n= 144) and less experienced (n=140) teachers

Statement	More Experienced		Less experienced		T	Sig
	M	SD	M	SD		
Optimism	3.82	.86	3.88	.90	.04	.96
Work Management	3.72	.92	3.18	.98	.07	.02*
Job Performance	3.78	.84	2.72	.86	.12	.00*

Level of significance * ≤ 05 , ** ≤ 02

Independent sample t-test was conducted to compare the scores of teachers. There was a statistical difference in optimism but not reaching at significance difference between more experienced score (M=3.82, SD=.86) and less experienced score (M=3.88, SD=.90). There was a statistical significance difference in work management because more experienced score was greater (M= 3.72, SD= .92) than less experienced (M=3.18, SD=.98). There was also a statistical significance difference in job performance because more experienced score was greater (M= 3.78, SD= .84) than less experienced (M=2.72, SD=.86).

Analysis of variance regarding teachers' qualification groups (n=284)

Source of variation		SS	df	MS	F	Sig.
Job performance	Between Groups	.23	2	.11	.181	.835
	Within Groups	95	147	.64		
Optimism	Between Groups	16.75	2	8.37	28.62	.000
	Within Groups	43.01	147	.29		
Work engagement	Between Groups	7.74	2	3.87	13.20	.000
	Within Groups	43.11	147	.293		

Level of significance * ≤ 05 , ** ≤ 02

ANOVA was conducted regarding qualification groups (Master, M. Phil and Ph. D) of teachers. There was not a significance difference in job performance $F(2,147) = .181, p = .835$. Which is not significant at $\alpha = .05$. There was a significance difference in optimism and work management.

<i>Post Hoc for qualification group of teachers regarding optimism</i>							
<i>Master</i>		<i>M. Phil</i>		<i>PHD</i>		<i>sig</i>	<i>Post Hoc</i>
<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
3.92	.53	3.81	.61			.00	Master > M. Phil
3.92	.53			4.33	.29	.00	PHD > Master
		3.81	.61	4.33	.29	.00	PHD > M. Phil

Level of significance $* \leq .05, ** \leq .02$

It is indicated mean of the teachers about qualification Master= 3.92, M. Phil=3.81 and Ph. D. =4.33, $p = .00$. Teachers have significance different regarding qualification in optimism. It was found regarding qualification PHD > Master > M. Phil.

<i>Post Hoc for qualification group of teachers regarding work management</i>							
<i>Master</i>		<i>M. Phil</i>		<i>PHD</i>		<i>sig</i>	<i>Post Hoc</i>
<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
3.84	.59	3.96	.52			.00	M. Phil > Master
3.84	.59			4.32	.28	.00	PHD > Master
		3.96	.52	4.32	.28	.00	PHD > M. Phil

Level of significance $* \leq .05, ** \leq .02$

It is indicated mean of the teachers about qualification Master= 3.84, M. Phil=3.96 and Ph. D=4.32, $p = .00$. Teachers have significance different regarding qualification in work management. It was found regarding qualification PHD > Master > M. Phil.

4. CONCLUSION

It was concluded that the proposed statements were shown satisfied. There was no significance difference in optimism but statistical difference was found in work management and job performance between more and less experienced teachers and same is the case with work engagement when we take qualification of the respondents as the determining factor.

DISCUSSION AND FUTURE DIRECTION

It was clearly found that university teachers believed on optimism and work management for their job performance. The study showed that optimism and work management play a vital role for the effective performance of the employees at university level. Job performance is more than effective because, comparatively, they help the community more conveniently to grow in a positive direction. This study will also prove the purpose that to what extent the job performance makes the difference, and up to what ability it leads the working environment. Their performance level will reveal the level of performance. This study will become helpful to let others know that how teachers feel confident in their jobs and work places. Optimistic behavior is the only thing that brings the best outcome of devoted efforts.

The desired outputs can only become possible when teachers are empowered and are given freedom. Eventually we may say that the gains through teacher performance will produce gains in accomplishment of organizational objectives. A number of research studies should be conducted for the awareness of optimism, work management and job performance. This effort will be proved as stepping stone for the growth of educational institutions like other business organizations.

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ISSUES IN CONTEMPORARY MARKETING EDUCATION

AGU GODSWILL AGU, Ph.D.

DEPARTMENT OF MARKETING

ABIA STATE UNIVERSITY

talk2godsag@yahoo.com

The term “Marketing” has gained preeminence in business survival strategies more than production, product, selling, trading, distribution and other orientations which were previously practiced by business organizations. Today, organizations of different sizes, types, missions and scope, such as manufacturing outfits, service providers, government organizations, religious movements and other not-for-profit organizations have realized the inevitability of marketing in their quest for survival. It is surprising however to observe that most of these organizations are yet to realize the danger of entrusting the marketing functions/units into the hands of non-marketing graduates. Marketing, to them is something anybody can do. This ideology and orientation has resulted in colossal/loss of customers, revenue and profit to several organizations (Agu, 2016).

The 21st century marketing education is becoming more practical and more sophisticated. This makes it difficult for people who are not willing to undergo deep marketing trainings to cope with its current challenges in the market place.

What is Marketing?

Being a controversial and practice-oriented discipline that focuses on consumers whose behaviour remains fickle especially in the 21st century, the definitions of Marketing have continued to attract criticisms right from the 1935 definition by National Association of Marketing Teachers (Agu, 2016). In 2008, the NAMT (now American Marketing Association) revisited its 2004 definition of marketing to read thus (Agu, 2016) “Marketing is the activity, set of institutions and processes for creating, communicating, delivering and exchanging offerings that have value for customers, clients, partners and the society at large”.

The definition captured the expanded side of Marketing; not just as a function in an organization. Marketing is now seen as a science, an educational process, a philosophy and a major player in the society. In an attempt to remedy the lapses identified by scholars in the AMA 2004 definition of Marketing, Okpara (2012) proffered a definition thus:

“Marketing is the individual or institutional activities designed to create “customer” satisfaction and relationship by striving to make offers and acceptances mutually easier and favourable”.

This definition, according to the originator, covers the limitations in AMA’s(2004) definition as pointed out by Mick (2007), Zinkhan and Williams (2007), Gronroos (2006).

The short falls are the AMA 2004 definition are:

- Overlooking the Marketer's moral responsibility for the sociological condition of the world.
- Limiting Marketing as an organizational function only; etc.

While tracing the history of Marketing, Ogbuji (2012) and Onah (2008) disclosed that modern marketing started in the 18th century and evolved from emphasis on production and product between 1869 – 1930, through the sales era of 1930 – 1950, to the Marketing concept era of the 1960s. Onah (2008) described Marketing as that which emphasizes consumer satisfaction, social welfare and relationship. Based on this assertion, Ogbuji (2012) adduces a definition thus:

“Marketing consists of all individual and organizational activities, geared towards the identification of consumer needs/wants and the provision and delivery of goods and services, that will satisfy these needs/wants at a profit to the individual or organization”

In a latest definition of Marketing, Agu (2016) bemoaned the much lopsidedness of Marketing definitions towards the theoretical perspective. He noted that by its name, Marketing and its explanations ought to be more practice-oriented. He therefore, proffered a practice-oriented definition of Marketing thus:

“The practice of creating, delivering and exchanging value for the benefit of all stakeholders at a profit to the organization or individual”

From all these definitions, we can summarize by answering our earlier posed question thus:

1. **By its name**, marketing is a practice, “doing” which involves execution of actions and creation (innovation). This practice however, is strengthened and learned by the adoption of tested theories (The knowledge side of marketing). For effective results, scholars have continued to advocate proper synergy with more emphasis on practice (Agu, 2016; Anyanwu, 2013; Okpara, 2012; Agu, Kalu & Nkanikpo, 2015).
2. **By its nature**, Marketing is controversial, eclectic and convertible (Okpara, 2012; Hunt, 1976; Agu, 2016). Marketing is controversial in theory and practice. In theory, Marketing scholars are yet to agree on the exact definition of marketing. In practice, Marketing has generated heated arguments in favour and or against its activities among consumers and the general public. Again, Marketing as an area of study is eclectic as it is a relatively new course of study. It therefore borrows from diverse disciplines such as Economics, Mathematics, Sociology, Psychology, etc. to establish its substructure. Being convertible in nature, Marketing is pervasive as it affects all. It is felt in virtually all works of life. In fact, there is the Marketing angle to everything we do in life.
3. **By its origin**, Marketing is a product of “exchange”. According to Agu (2016), exchange is the core concept in marketing and it is the process of obtaining a desired product (goods, services, ideas, events, etc) from someone by offering something in return. As a value-creating process that seeks to leave parties involved better off, Kotler and Keller (2007) identified five conditions that must be satisfied for an exchange to exist:
 - i. There are at least two parties.
 - ii. Each party has something that must be of value to the other party.
 - iii. Each party is capable of communication and delivery.
 - iv. Each party is free to accept or reject the exchange offer.
 - v. Each party believes it is appropriate or desirable to deal with the other party.

Therefore, without exchange there is no marketing.

4. **By its scope** all marketing phenomena, issues, problems, models, theories and researches can be classified into three categorical dichotomies of profit sector versus non-profit sector, micro versus macro and positive versus normative (Hunt, 1976 in Okpara, 2012). The table below shows the scope as presented by Hunt (1976):

Table 1: The Scope of Marketing

	Positive	Normative
Micro	<ol style="list-style-type: none"> 1. Problem, Issues, theories & researches concerning: <ol style="list-style-type: none"> a. Individual consumer buying behaviour; b. How firms determine prices; c. How firms determine products; d. How firms determine promotion; e. How firms determine channels of distribution; f. Case study of Marketing practices. 	<ol style="list-style-type: none"> 2. Problem, issues, normative models & researches concerning how firms should: <ol style="list-style-type: none"> a. Determine the marketing mix b. Make pricing decision c. Make product d. Make Promotion e. Make packaging f. Make purchasing g. Make international marketing h. Organize their marketing department i. Control their marketing efforts j. Plan their marketing strategy k. Apply systems theory to marketing problems. l. Manage retail establishments m. Manage wholesale establishments n. Implement the marketing concept.
PROFIT SECTOR	<ol style="list-style-type: none"> 3. Problem, Issues, theories & research concerning: <ol style="list-style-type: none"> a. Aggregate consumption pattern b. Institutional approach to marketing c. Commodity approach to marketing d. Legal aspects of marketing e. Comparative marketing f. The efficiency of marketing systems g. Whether marketing spurs or retards economic development 	<ol style="list-style-type: none"> 4. Problem, issues, normative models & research concerning: <ol style="list-style-type: none"> a. How marketing can be made more efficient b. Whether distribution costs too much c. Whether advertising is socially desirable d. Whether consumer sovereignty is desirable e. Whether stimulating demand is desirable f. What kinds of laws regulating marketing are optional
Macro		

	<ul style="list-style-type: none"> h. Power and conflict relationships in channels of distribution i. The universality of marketing functions j. The consistency of marketing concept with consumer interest. 	<ul style="list-style-type: none"> g. Whether marketing should have optimal social responsibilities h. Whether vertical marketing systems are socially desirable.
Micro	<p>5. Problem, issues, theories & research concerning:</p> <ul style="list-style-type: none"> a. Consumers purchase of public goods b. How non-profit organizations determine prices, products, promotion and place c. Case studies of public goods marketing. 	<p>6. Problem, issues, normative models & research concerning how non-profits should:</p> <ul style="list-style-type: none"> a. Determine the marketing mix (social marketing) b. Make price, product, promotion, packaging, purchase and international marketing decision c. Organize their marketing efforts d. Plan their marketing strategy e. Apply systems theory to marketing problems.
PROFIT SECTOR	<p>7. Problem, issues, theories & research concerning:</p> <ul style="list-style-type: none"> a. The institutional framework for public goods b. Whether television advertising influences elections c. Whether public service advertising influences behaviour d. Whether existing distribution systems for public goods are efficient 	<p>8. Problem, issues, normative models & research concerning:</p> <ul style="list-style-type: none"> a. Whether society should allow politicians to be ‘solid’ like toothpaste b. Whether the demand for public goods should be stimulated c. Whether Armed Forces should be allowed to advertise for recruits.
Macro		

5. **By its position** in the organization, Marketing is the breadwinner. The functional unit that creates and retains customers, thereby converting the products of the organization into revenue (cash) that would be used to cater for the rest of others functional units. It is therefore seen as the “First among equals”, “the goose that lays the golden egg” (Okpara, 2012) as well as the Soutien de famille (real bread winner) (Agu, 2016).
6. **By its mandate**, the 21st century Marketing seeks to promote consumer, societal and organizational well-being by creating and sustaining mutually benefiting relationships among the

groups. This new marketing order postulated by Agu, Okpara and Eluwa (2017) is depicted in the diagram below:

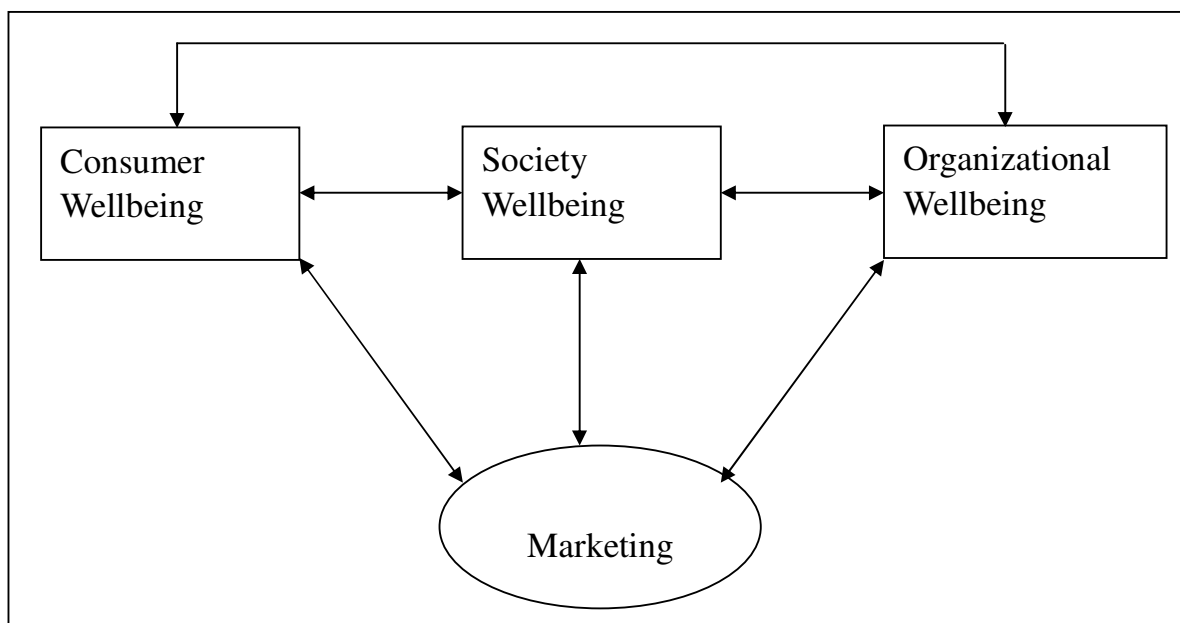


Fig.1: The Cardinal Mandate of Marketing.

7. **By the competition**, Marketing relies on the traditional 4Ps and or the extended 7Ps as its arsenal. The Ps are: product, price, place, promotion, people, physical evidence and process. These are the marketing weapons in the market place. To win the war (customer patronage and loyalty) in the battle field (the market place), the marketer blends these tools after a carefully executed marketing research and launches attack (introduction of the offerings) at the right time, right place, right quality and right quantity.

Methods of Teaching Marketing Education

Marketing education as a professional course could be delivered through many vehicles. The marketing literature in Nigeria has more interest on the methods of studying marketing such as the barter, commodity, functional, institutional, system, managerial and economic approaches (Okpara, 2012; Ogbuji, 2012; Agu, 2016). Our interest here is to expose alternative methods and approaches that marketing educators can adopt while teaching marketing. Like other management science courses, marketing could be inculcated by the approaches listed by Kalu, Agu and Awa (2012):

- a) The lecture method
- b) Discussion Method
- c) Seminar Method
- d) Group Work Method
- e) The Case Study Method
- f) On-the-Job Training

Other result oriented approaches are:

- g) The Industrial Attachment Method
- h) The Marketing Laboratory Experimental Approach
- i) Classroom Practical Assignments
- j) Excursions
- k) Industry-Guest Lecturer Approach
- l) Marketing Practice Approach (Mini-Mart/Kiosk)
- m) The Quiz Approach/Questioning Method
- n) Gamification Approach
- o) Carton/ Pictorial Approach (Use of Multimedia).

QUALITY OF MARKETING EDUCATION AND THE PERFORMANCE OF MARKETING GRADUATES IN NIGERIA: NEED FOR THEORY-PRACTICE SYNERGY

AGU GODSWILL AGU, Ph.D.

DEPARTMENT OF MARKETING

ABIA STATE UNIVERSITY

talk2godsag@yahoo.com

Abstract

This study surveyed the views of marketing educators, practitioners and graduating students over the increasing gap between marketing theory and practice in Nigeria which has led to the displacement of marketing graduates from marketing positions in many companies across various industries. The survey research design was adopted while a convenience sample size of 180 respondents was used. The respondents were drawn from Marketing lecturers and students in tertiary institutions offering Marketing in the South-east and South-south, as well as industry managers. The study revealed that the level of synergy between marketing theory and practice in Nigeria was poor which results in poor performance of marketing graduates and that the quality of marketing education and methods adopted in teaching the subject matter have high impact on graduates' performance. It was recommended among others that tertiary institutions offering marketing should seek strong linkage, relationship and knowledge coalition with industry players and employers of labour and that NUC, NIMN and institutional authorities should put an eagle eye on the quality of lecturers, materials and learning environment in order to boost the quality and relevance of marketing education.

Key Words: Marketing Education, Theory, Practice, Synergy.

Introduction

Marketing in Nigeria is growing in principle (theory), practice and professionalism. In principle, an increasing number of tertiary institutions (federal, state and private universities and polytechnics) offer marketing as a full-fledged discipline. This is against the sole offer by University of Nigeria, Enugu Campus in 1972 (Okpara, 2012). In practice, the intensity of competition in virtually all sectors of the economy has positioned marketing as an inevitable functional unit in profit-oriented and non

profit-oriented organizations. The horn of marketing has been raised high in the activities of such professional bodies such as National Institute of Marketing of Nigeria, Advertising Practitioners Council of Nigeria, Chartered Institute of Purchasing and Supply, Nigerian Institute of Public Relations, etc. This accounts for the increasing number of marketing graduates and professionals certificated annually. Marketing according to Pride and Ferrel (1985) consists of individual and organizational activities aimed at facilitating and expediting exchanges within a set of dynamic environmental factors. Marketing functions can be performed at the micro and macro levels. The micro functions which are performed within the organizational setting include the following: marketing research, product planning and management, price management, distribution management, sales forecasting, training of sales personnel, market planning, after sales services etc, Anyanwu, (2000). Also, Agbonifoh, Ogwo, Nnolim and Nkamnebe (2007) recognized three sub-sections of the macro functions of marketing as merchandising (buying, selling, standardization, grading), physical distribution (transportation, storage) and auxiliary functions (market information, risk bearing and financing).

In view of these functions, and the science/art debate about marketing, Anyanwu (2000) suggests that marketing should better be seen as a practice and its qualified members regarded as **marketing practitioners**. To achieve this, the call for theory-practice synergy is therefore imperative. Marketing theory emphasis the knowing and the academic side while marketing practice or art emphasizes the doing rather than the knowing. In Nigeria today, Marketing is offered in many tertiary institutions (Universities; private, federal and state, polytechnics of all kinds, colleges of education, etc.). Graduates of marketing come in different categories in Nigeria depending on the certificate obtained. There are National Diploma (ND), Higher National Diploma (HND), Bachelor of Science (B.Sc.), Post Graduate Diploma (PGD), Master of Business Administration in Marketing (MBA), Master of Science in Marketing (M.Sc.) and Doctoral Degrees (Ph.D.).

Statement of the Problem

There is a mismatch in the number of marketing graduates produced and the number of marketing jobs secured by marketing graduates in Nigeria. From the etymological meaning of the subject matter, marketing is more of a practice (art) than theory (Anyanwu, 2003; Okpara, 2012; Pearce & Bonner, 2007). Kotler and Keller (2007) also assert that there has been a constant tension between the formulation side of marketing and the creative side. Marketing educators place too much emphasis on purely academic and theorizing issues, yet our discipline is fundamentally applied. This lopsided and imbalanced training to marketing graduates has led to the performance of marketing functions by non-marketing graduates in leading organizations in Nigeria. This is simply because most marketing graduates are academically sound, but worth very little in practical relevance which is the basic skill employers look out for. Observations show that over 65% of marketing managers in banking, transportation, telecommunication, manufacturing, insurance, pharmaceutical and hotel services are non-marketing graduates. It is embarrassing to note that it has become a culture in most organizations to leave marketing vacancies open for graduates in all disciplines. To worsen it, most graduates, in many instances can hardly justify their certificates in practice when employed. In many tertiary institutions, little or no attention is paid to the

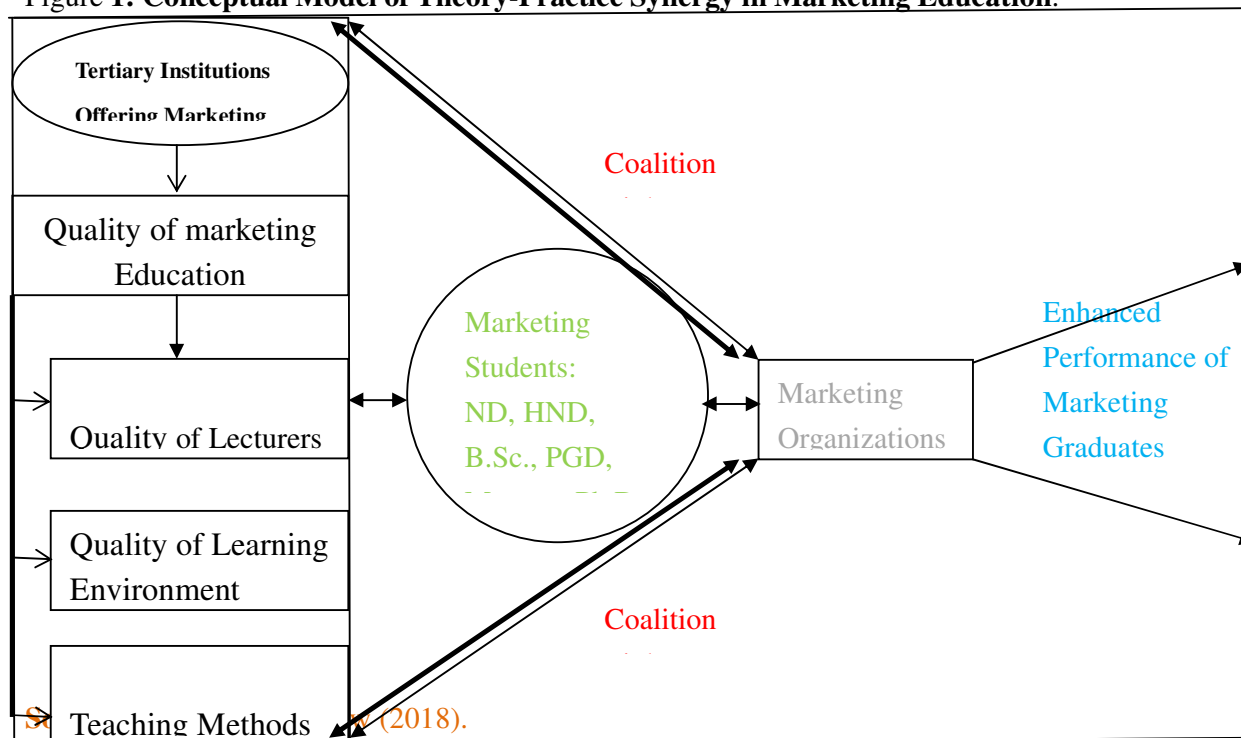
practical aspect. In today's globally competitive knowledge economy, organizations favour graduates that can produce results in the market place. Hence, there is the need to update marketing curricula to capture the existing practical gap. Clark (2001) suggested that university departments will need to change their curricula every two or three years in order to ensure that the content of their teaching reflects the rapid advancing frontiers of scientific knowledge. It is therefore worrisome to note that marketing education has been rated far below expectations in Nigeria when evaluated in terms of labour market absorption and employers assessment of graduates' performance vis-a-vis other graduates. More, reviewed literature shows an obvious lack of recent empirical studies on the link between marketing theory and practice in Nigeria. This study was therefore conducted to find out reasons accounting for the widening gap between marketing theory and marketing practice represented by the teaming number of marketing graduates and the very little number of these graduates securing and occupying sensitive marketing positions in leading industries. To achieve this, the following research questions were raised:

- (1) Does the quality of marketing education influence the performance of marketing graduates in organizations?
- (2) To what extent do the teaching methods adopted by tertiary institutions in teaching marketing influence the performance of marketing graduates in organizations?
- (3) To what extent does the quality of lecturers influence the performance of marketing graduates in organizations?
- (4) To what extent does the quality of learning environment influence the performance of marketing graduates in organizations?

Conceptual Framework

. The figure below shows a conceptual model of synergy between marketing theory and marketing practice:

Figure 1: Conceptual Model of Theory-Practice Synergy in Marketing Education.



Review of Related Literature

Studies have been carried out on the relationship between the quality of education (quality of teachers, quality of learning environment, and method of teaching) and the performance of students. Few researchers have also considered the effect of education quality on the employability of graduates of the system. As observed by Tebabal and Kahssay (2011), the primary purpose of teaching at any level of education is to bring a fundamental change in the learner. To facilitate practice of knowledge transmission, teachers are expected to apply appropriate teaching methods that best suit specific objectives and level exit outcomes (Gayanpfu, 2013). Again, Adunola (2011) maintains that teachers need to be conversant with the numerous teaching strategies that take recognition of the complexity of the concepts to be covered. To prepare students of marketing to be employable in the information technology oriented and highly competitive sectors of the global economy, there is the need to align the teaching methods, the teaching environment and the quality of lecturers with global best practices.

Empirical Review

In a study involving 109 students, Gayanpfu (2013) observed that there is a significant relationship between teaching methods and students academic performance. This is also supported by the empirical studies of Adunola (2011), Tebabal and Kahssey (2011), Luntanya (2014) and Harvey (2005). Above all, Trant (2012) in his study that involved Vietnamese higher students found that a positive relationship exists between teaching systems and the issue of graduate employability. However, Nazi and Can (2010)

discovered in a study involving two groups of accounting students that there was no significant difference in the performance of students who were taught the subject matter using different approaches.

The quality of teachers (lecturers) has been found to have significant effect on the performance of students and their career prospects. Harvey (2005) noted that the nature of teaching and learning practices should aim at developing students to be effective workers. Trant (2012) observed that the main driver of the variation in students learning at school is the quality of the lecturer. Luntanya (2014) asserts that the quality of an education cannot exceed the quality of its teachers. Higgin (2015) observed that students placed with high-performing teachers will progress three times as fast as those placed with low-performing teachers. Finally, a number of scholars have found strong relationship between learning environment and quality of graduates produced. The studies of Higgin (2015) Kamaraddin and Kamarazaman (2001) confirm this. However, Lawrence (2012) found no relationship between the two in his study. From these reviewed literatures, the following research hypotheses were derived:

- H₀₁:** The quality of marketing education does not influence the performance of marketing graduates in organizations.
- H₀₂:** The teaching methods adopted by tertiary institutions in teaching marketing do not influence the performance of marketing graduates in organizations.
- H₀₃:** The quality of lecturers does influence the performance of marketing graduates in organizations.
- H₀₄:** The quality of learning environment does influence the performance of marketing graduates in organizations.

Research Methodology

The survey research design was adopted in this study with the questionnaire, oral interview and observation used in eliciting needed data. Copies of the questionnaire were distributed to a randomly selected sample size of 180 respondents conveniently determined for the study. This number was made up of marketing educators, marketing final year students drawn from ten tertiary institutions offering marketing as well as industrial managers from banking, hospitality, transport, insurance, pharmaceutical and telecommunication organizations within the South-East and South-South states. The hypotheses stated in this study were tested using One Sample t-test in the SPSS version 21. T-test is based on t-distribution and is considered an appropriate tool for finding the significance of a sample mean in case of small sample when population variance is unknown (Kothari, 2012). The reliability of the instrument was determined using the Cronbach Alpha test which showed a correlation value of **0.72, 0.79, 0.81 and 0.76** respectively for the four variables; quality of marketing education, teaching method, quality of lecturers and quality of learning environment. The content and face validity of the instrument were determined by expert opinion.

Data Presentation and Analysis

All the collected data were analyzed using simple percentages and tables.

Table 1: Administration and Retrieval of Questionnaire

Group	No. Issued	No. Retrieved/ Used	Percentage Retrieved
Educators	60	52	87%
Students (final year)	60	56	93%
Industry Managers	60	43	72%
Total	180	151	84 %

Table one above shows that 60 copies of the questionnaire were administered on each of the three groups, 52 (87%), 56(93%) and 43(72%) were retrieved from marketing educators, marketing final year students and industrial managers respectively. In all, a total of 151 representing (84%) of the 180 copies distributed were retrieved.

Table 2: Analysis of Demographic Variables

To be analyzed here are **the age**; sex, marital status and educational background of respondents.

Options	Frequency	Percentage
Sex:		
Male	83	54.97
Female	68	45.03
Marital Status:		
Married	71	47.02
Single	80	52.98
Educational Background:		
Olevel (final years)	60	37.09
ND	15	10.00
HND	20	13.00
B.Sc	12	8.00
Masters and above	48	31.79
Age Bracket:		
18-30	62	41.06
31-40	32	21.19
41-50	35	23.18
51 and above	22	14.57

The table above shows that 83 (55%) and 68 (45%) were males and females respectively. 71(47%) and 80(53%) were married and single respectively. Also, 56(37%), 15(10%), 20(13%), 12(8%) and 48(32%)

had Olevel, ND, HND, B.Sc and Masters above respectively. Again, 62(41%), 32(21%), 35(23%) and 22(15%) were in the age brackets of 18-30, 31-40, 41-50 and 57 and above respectively.

Table 3: Rating of the Extent of Synergy between Marketing Theory and Practice in Nigerian Tertiary Institutions

Option	Frequency	Percentage	Mean score
Excellent	0	0	0.00
Very good	8	5.30	0.26
Good	26	17.22	0.69
Fair	34	22.52	0.68
Poor	43	28.48	0.57
Very poor	40	26.49	0.26
Total	157	100.00	2.46= POOR

Table 3 analyzed respondents rating of the current synergy between theory and practice in marketing education, none rated it excellent. 8(5%), 26(17%) 34(23%), 43(28%) and 40(26%) rated it very good, good, fair, poor and very poor respectively. The mean value analysis gave a grand total of 2.46 on a six scale option. This means that the synergy between marketing theory and marketing practice is poor.

Table 4: Rating of the Effect of Quality of Marketing Education on the Performance of Marketing Graduates in the Field

Criteria	VH	H	L	VL	Mean score	Result
Quality of educators	83	57	9	2	3.46	High
Quality of teaching						
Materials	48	79	16	8	3.10	High
Quality of learning environment	93	44	11	3	3.50	Very High
Total	224	180	36	13	3.36	High
	49%	40%	8%	3%		

Table 4 shows respondents' rating of the effect of quality of marketing education on the performance of marketing graduates in the industry. The three criteria assessed were the quality of educators with a mean score of 3.46 (High), the quality of teaching materials with a mean score of 3.10 (High) and the quality of learning environment with a mean score of 3.50 (Very High). In all, a total of 224 votes (49%), 180 (40%), 36 (8%) and 13 (3%) were recorded for very high, high, low and very low respectively. The cumulative mean score was 3.36 which means that the quality of marketing education has **High effect** on graduates performance in the field.

Table 5: Rating of the Impact of Teaching Method Adopted on the Performance of

Marketing Graduates.

Options	Very high	High	Low	VL	Mean score	Result
Class room lectures	46	40	48	17	2.76	High
Case Analysis	74	72	5	-	3.46	High
Discussion method	52	56	21	22	2.92	High
Group work	63	48	31	9	3.09	High
Seminars/workshops excursions/	88	52	11	-	3.51	Very High
Participation	90	61	-	-	3.59	Very
High Industrial Training	56	64	20	11	3.08	High
Total	469	393	136	59	3.21	High
	44%	37%	13%	6%		

The above table shows respondents' rating of the effect of teaching methods on the performance of marketing graduates. Seven methods of teaching marketing as suggested by Kalu, Agu, and Amaechi (2012) were used. The class room lecture method was rated high with a mean score of (2.76%). Case method, discussion method, group work method, and industrial training method were also rated high with mean score average of 3.46, 2.92, 3.09 and 3.08 respectively. Seminar/workshop methods and excursion/participation methods were rated very high with mean score averages of 3.57 and 3.59 respectively. In all, 469 (44%), 393 (37%), 136 (13%), and 59 (6%) rated the impact of teaching method on the performance of marketing graduates very high, high, low and very low respectively. The cumulative mean score average of 3.21 shows that the teaching method has **High** impact on graduates' performance.

Table 6: Graduates' Performance When Theory-Practice Synergy is neglected

Option	Frequency	Percentage
Very High	7	4.64
High	18	11.92
Low	53	35.10
Very Low	73	48.34
Total	157	100.00

The table above shows that 7 (5%), 18 (12%), 53 (35%) and 73 (48%), rated performance of students when theory-practice synergy is neglected very high, high, low and very low respectively. When a mean score of 1.72, the result shows that graduate's performance will be low when theory-practice

synergy is neglected in the teaching of marketing.

Test of Hypotheses

All the stated hypotheses were tested using the student t-test as disclosed.

Rule: At **0.05** level of significance and an appropriate degree of freedom, if the critical value of t is less than the calculated value of t and the Alpha (0.05) is greater than the p-value, **reject H_0** and **accept H_1** .

The table below shows the results of the four tested hypotheses:

Table 7: Results of Tested Hypotheses

Hypothesis	Source of Date	T-Cal	P-Values	DF	T-Critical	Decision
One	Table 4	3.593	0.004	11	2.201	Reject Null
Two	Table 4	3.222	0.015	7	2.365	Reject Null
Three	Table 4	3.124	0.017	7	2.365	Reject Null
Four	Table 5	6.639	0.000	27	2.012	Reject Null

The test was calculated at an alpha level of 0.05 which was compared with the p-value (sig. 2 tailed).

Summary of Findings

The following key findings were made in the course of this study:

- (1) The study discovered that the level of synergy between marketing theory and practice in Nigerian tertiary institutions was rated poor. The theory-practice gap leads to very poor performance of marketing graduates in the marketplace.
- (2) The study also revealed, from the tested hypotheses, that the quality of marketing education represented by the quality of educators (lecturers), quality of teaching materials (textbooks, teaching aids such as technological facilities etc) and quality of learning environment have high impact on the performance of marketing graduates. In contrast, most of the institutions have very poor learning environment. This is in line with the findings of Gayanpfu (2013), Adunola (2011), Tebabal and Kahssay (2011), Luntanya (2014), Harvey (2005) and Trant (2012), while it contradicts Nazi and Can (2010) findings.
- (3) It was also revealed, from the fourth hypothesis tested, that the teaching method adopted in the teaching of marketing affects performance of marketing graduates to a high extent. The teaching dimensions examined were classroom lecture method, case method, decision method, group work method, seminar/workshop, excursion/participation as well as industrial training methods. However, the impact of seminar/workshop and excursion methods was rated very high on graduates' performance. Nevertheless, classroom lecture accounts for over 80% of the teaching methods presently adopted in tertiary institutions. Most of the institutions have scrapped the industrial training programme while excursions were never in the curricular of most marketing departments. Higgin (2015) and Kamaraddin and Kamarazama (2001) assertions are in line with these findings while the assertion of Lawrence (2012) negates it.

Conclusion

There is an urgent need to rethink, redirect and reposition the quality of marketing education in Nigeria

by ensuring that the gap existing between theory and practice is bridged. When this is achieved, marketing graduates will be sought-after products in the labour market in view of the important position marketing occupies as a functional unit in an organization.

Recommendations

Based on the findings of the study, we recommend as follows:

- (1) That tertiary institutions offering marketing should seek strong linkage, relationship and knowledge coalition with industry players and employers of labour. This will help to identify the modern complementary skills which marketing graduates are expected to possess. Efforts should be made to update the syllabus to include such practical aspects of marketing that will help to build the creative, communication, organizational, interpersonal and reflective skills of the graduates. Our new model can serve as a guide.
- (2) To boost the quality and relevance of marketing education in Nigeria, NUC, NIMN and institutional authorities should put an eagle eye on the quality of lecturers, materials and learning environment in our tertiary institutions. This view is in line with the assertions of Hunt (1994), Dimas et al (2011), Harvey et al (1993), Layland (2012) and Williams et al (2003), that there is the need to assess, evaluate, implement, adapt and assimilate teaching methods, learning activities, institutional materials, resources and technologies to strengthen the effectiveness and quality of education to match institutional studies with the problems of the labour market.
- (3) Efforts should be made to allocate reasonable credit load and pay serious attention to such practical methods of marketing education as case analysis, seminars, workshop, industrial training, project research, group work, discussions etc. This will help in monitoring students' progress and performance with a view to proffering timely corrective measures before graduation.
- (4) Also, employers of labour should provide receptive and friendly atmosphere to students who wish to update their knowledge in the industry through researches, industrial training etc. This will help to reduce the cost of retraining after employment.

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INVESTIGATING THE ROLE OF TOURISM IN THE CONSERVATION AND SUSTAINABLE DEVELOPMENT OF THE ENVIRONMENT: A GEOGRAPHIC APPROACH

MAHTAB JAFARI*

Abstract: Tourism is always embracing economy, social and environmental impacts. For this reason, the policy of sustainable development of tourism is necessary. The general approach is that governments have paid attention to tourism ecologically in the long run. This is approved and financially self-sufficient, and from the perspective of social and moral for local communities is beneficial and promising. The aim of this study is to evaluate the effects of wetland ecosystem conservation and environmental sustainability of tourism in rural areas. The purpose of applied research and in terms of data collection is descriptive and analytical. The study population consists of 3 villages' khawmirabad rural district, Sarkol Zarivar which in the whole 93 villages of this area, a number of villages was selected. Sample households of the village and randomly classified and 12 villages were selected. Cochran formula used to determine the sample size and questionnaire to 330 randomly selected villages were selected among heads of households. The validity of the test Cronbach's alpha was 0.77 percent. For statistical analysis of data from one sample -t-test, chi-square test and ANOVA test in spss software is used. The results show that tourism in economic and socio-cultural aspects have a positive impact on the wetland ecosystem conservation and sustainable rural environment.

Keywords: environment, conservation, sustainable development, geographic approach, tourism

INTRODUCTION

In the present era of tourism, the tourism economy is becoming one of the fastest growth industries in the world, a tool for the creation of national income and one of the main pillars of the global economy; also, of concepts, forms of development considered¹. Natural tourism activity is a complex with other sectors of society and the economy, having in common the effects and consequences of different which should be in the process of planning all its aspects considered the take up of negative factors and threat prevention and the effects of economic, social and environmental aspects related to the increase². Tourism and environment are mutually dependent. Thus, development and management of tourism so that the environment is a key factor in achieving sustainable development is taken into account³. Tourists need to be part of the natural, cultural and human environment, to maintaining the balance between them⁴,

* Mahtab Jafari (✉)

Department of Political Geography, Faculty of Geography, University of Tehran, Iran

¹ N. Rattanasuwongchai (1998): *Rural Tourism: The Impact on Rural Communities*, 2. Thailand Food and Fertilizer Technology Center.

² T.K. Reinhold and A. Diara (2000). "The role of tourism in development planning". Department of Business Management.

³ World Tourism Organization 1379, "National and regional tourism planning". Translated by M.A. Zadeh. Tehran: Cultural Research Bureau, p.73.

⁴ M. Altinay, K. Hussain (2005). "Sustainable Tourism Development: A Case Study of North Cyprus". *International Journal*

because the vast majority of recreational activities directly depends on natural resources in the destination¹; the negative environmental impact of tourism including air pollution, soil pollution, water pollution, traffic congestion problems, poured spraying waste, damage to historical buildings, destruction of natural herbs, destruction of wildlife, etc.²

Wetlands are beautiful sights. It is necessary the tourism industry to develop properly planned and managed, as a creator or drive the development process to achieve sustainable development in the local communities and aquatic ecosystems and wetlands.

Wetlands of inertia relative water have been developed among many ecosystems production in the world, comparable to rain forests and coral reefs, which include a variety of species of microorganisms, plants, insects, amphibians, reptiles, birds, fish and mammals³. The regeneration of these natural ecosystems engages the restoration of natural materials and rustic design of the most important research areas and many of the country's executive. The aim of this study is to evaluate the effects of wetland ecosystem conservation and environmental sustainability of tourism in rural areas surrounding the Zarivar, located in the city of Marivan.

THEORETICAL FRAMEWORK

Tourism, as an important form of human activities, has an important impact. The effects in the region of tourism destination interact with the local environment, economy, culture and society is evident. Also, a large part of the activities of tourism planning is done on the effects of tourism⁴. The effects of tourism development, the complex process of change and exchange between tourists and destination host settlements are included⁵.

The environmental dimension of tourism, one of the favorite areas of geographers, is the reason for the implication of geography with a robust approach in the field of human relations and the environment⁶. The analysis of tourism on the environment and resources is an area in which natural and human geographers study problems related to tourism.

Lagoon refers to a place where water is the main factor for the environment, plants and animals, all areas, rivers, lakes, littoral, mangrove forest, hatcheries, channels, etc. where the maximum water depth of more than 3 meters during low tide are not applicable. The need for environmental protection and utilization of natural resources, including sustainable development is a necessity. Park managers, protected areas and wetlands face many decisions that need to be appropriately adopted. Cover and dynamic monitoring of land use and landscape in protected areas and wetlands need to understand how they effect on nature; the process of reconstruction and rehabilitation and that of protection on long term

of Contemporary Hospitality Management, Volume 17, Issue 3, p.274.

¹ Sara Dolnicar, Friedrich Leisch (2008). "Selective Marketing for Environmentally Sustainable Tourism". *Tourism Management*, Volume 29, Issue 4, p.672.

² M. Altinay, K. Hussain, *op.cit.*, p.277.

³ Nejma Danielle Piagentini (2006). *The Science and Policy that Compels the Wetland Mitigation of Phosphate-Mined Lands*. Master of Science Thesis, University of South Florida, p.1.

⁴ Peter Mason (2003). *Tourism Impacts, Planning and Management*. Jordan Hill: Routledge, p.10.

⁵ Y. Yoon (2002). *Development of a Structural Model for Tourism Destination Competitiveness from Stakeholders, Perspectives*. PhD Thesis. Virgin Polytechnic Institute State University, p.14.

⁶ Lisle S. Mitchell, Peter E. Murphy (1991). "Geography and tourism". *Annals of Tourism Research*, Volume 18, Issue 1, p.57.

are very important.

Wetlands are some of the most important ecosystems on Earth. Safe areas for wildlife in these areas are, however, threatened. Wetlands through water are biologically the most diverse ecosystems of the Earth. They have spread across the world and play an important role in the water cycle, control the regional floods, prevent erosion, water treatment and recirculation of nutrients. They also are transitional zones between land and water environments and, as resources, they become attractive. Negative human activities greatly affect the wetland ecosystem¹. Human impacts on wetlands can include physical changes, such as deposition and changes in water flow; also, general biological changes such as loss of biodiversity, the introduction of invasive species and changes in the structure of society².

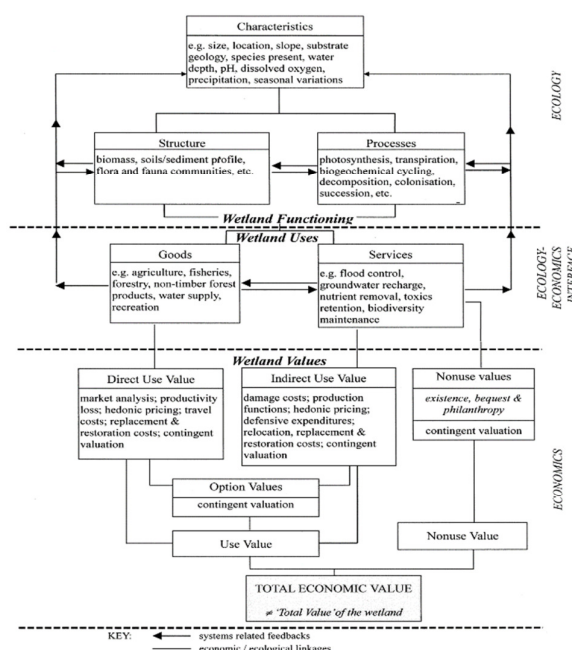


Fig. 1. Connections among wetland functions, uses and values. Source: K.T. Turner (2000)³

Table 1.a. National studies in the field of research

Writer(s)	Subject	Results
)		

¹ William J. Mitsch and James G. Gosselink (2000). *Wetlands*. Third edition. New York: John Wiley & Sons

² John A. Freeland and Jim L. Richardson (1997). *Soils and Sediments as Indicators of Agricultural Impacts on Northern Prairie Wetlands*. In: S.A. Peterson, L. Carpenter, G. Guntenspergen and L.M. Cowardin (eds.), *Pilot Test of Wetland Condition Indicators in the Prairie Pothole Region of the United States*. Washington DC: US Environmental Protection Agency.

³ K.T. Turner, J. Bergh, T. Barendregt, J. Straaten and E. Maltby (2000). "Ecological-economic analysis of wetlands: scientific integration for management and policy". *Ecological Economics*, Volume 35, Issue 1: 7–23.

Hassan Ismail-Zadeh et al. (2015)	Sustainable tourism in wetlands ecosystem. (Case study: lagoon city cash)	Results show that a total of 33 variables measuring institutional economics, social, cultural and ecological environmental study sustainable tourism in wetland ecosystems, 3 variables from the perspective of the people and every 33 variables, from the perspective of the authorities about have been confirmed. However, the analysis of two views converge (consistency) in the 3-variable divergence (anisotropy) has been observed in five variables.
Danehkar et al (2012)	Designed to nature-based tourism in the wetland using Spatial Multi Criteria Evaluation (SMCE)	According to the results of the implementation of a hierarchical approach in prioritizing the main criteria tourism, landscape criteria with the highest weighting coefficient allocated to the first priority. With regard to border the lagoon on the development of aquatic plants in the end zone three weights recreation including ecotourism, nature based tourism without physical development and physical development of nature-based tourism in the chaghakhur wetland identification and location.
Saman Gulali Zadeh (2013)	The effect of different methods of natural ecosystems tourism on the parameters of environmental education	Participation in the Environmental Education considerable increases knowledge and considerable changes in their attitudes and behavior. The results show that the difference between the two groups of the tips mentioned in this study influence the environmental education.
Narges Vazin (2014)	Develop a model for strategic	The results show the capacity of ecotourism wetlands was high in the studied area, the capacity of ecotourism

	planning of wetland ecotourism towards wetland ecosystem health and sustainable development of rural communities , the range wetlands Miyankaleh	based on the Likert scale in most parameters determined optimal level of numerical control (number 3) is evaluated and alpha level of 0.05 . Was significant.
Sajad Astani (2013)	Zoning and Wetlands International Tourism Climate Assessment Shadegan using geographic information system and single model	Results indicate that the Tourism Climate Index in April in the northern part of the lagoon Yahoo Messenger has good conditions in the central and southern part an excellent rating. The total wetland area in March compared to the other months of the year shows that the situation is more favorable.
Hosein Negares h (2013)	The feasibility of developing tourism Poldokhtar wetlands based on SWOT analysis	The results showed, for the study area, 21 internal strengths. And external opportunities as regional advantages and weaknesses internal and external threats as bottlenecks 22 feasibility of developing tourism in the region. Conclusion: the threshold of the high vulnerability of wetlands for tourism, which requires review and appropriate politics.
Mohsen Ranjbar et al (2011)	Anzali Lagoon role in sustainable	City Bandar Anzali most points demographic adjacent wetland is a wetland with an approximate length of 33 km and a width of 18 km from the north

	tourism development and sustainable planning	to the city of Bandar Anzali and the Caspian Sea, east to the village of Hasan River, from West to villages shoots ration of the Ali Abad Kaporchal and from the south Handekhale villages and Nokhaleh ends. Proximity to the major cities of Rasht, Anzali, Someye sara roads, as well as a lot of it in terms of tourism has become one of the country's major hubs. Every year a large number of tourists nationwide during the holiday season, especially in spring and summer, travel to the area.
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Source: Findings, 2017

Table 1.b International studies in the field of research

Writer(s)	Subject	Results
Hailun et al.	Lake Wetland Management System Case Study wetland ecotourism compatibility with Jin Yan	Wetland ecotourism sustainable development must rely on the support of local community residents and community involvement of local communities as an important part of the wetland ecotourism management. It must be said that in addition to evaluating the ecological natural phenomenon, the conditions of local communities in all aspects, including capacity development of eco-tourism, financial strength, attitude and understanding of local communities can contribute a prerequisite for the successful implementation of ecotourism.
SONG et al..	The effects on tourism and sustainable	A unique wetland ecosystem of rich biodiversity, functioning and values of environmental,

	development of regional wetland Ning Guy	economic and social lot. Cultural specificity / cultural heritage and biodiversity of wetland ecosystems have added value. Wetlands having unique natural and cultural landscape are appropriate for ecotourism development.
Dong	Check the status of the development of tourism and protection of wetland resources in Dongting Lake	In summary, managing wetland tourism can realize economic development, tourism, and yet can support wetland ecological conservation.
Lili et al.	A preliminary study on tourist behavior in a pond	The kinds of wetland ecosystem services, tourism and science education are very important functions, and wetland ecotourism, and tourism training and new exploitation of wetland resources are applicable.
Liu et al.	Case study analyzes the effects of ecotourism on Sustainable Development Lagoon Jin Yan	Lagoon wetland ecotourism is based on natural resources. In fact, ecotourism wetlands include wetland ecological culture, which is ethical and responsible ecotourism characteristics of wetlands; wetland protection into account and sustainable development of wetlands protection.
Wang	Study the development of tourism and wetland ecosystems	Because of its wetlands rich in biodiversity and cultural diversity, value and function of environmental education tourism is responsible travel to natural environments that protect the environment, and the economy helps Aboriginal people.

		Especially in sensitive and protected areas to reduce the negative environmental effects caused by the operation will be balanced environment.
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Source: Findings, 2017

METHODOLOGY

The purpose of this study in terms of data collection is descriptive and analytical. Data collection in the theoretical part of the documentary and in the field of survey based on interviews and questionnaires were used. The aim of this study was to evaluate the effects of wetland ecosystem conservation and environmental sustainability of tourism in rural areas. The study population consists of villages 3 khawmirabad rural district, Sarkol and zarivar which of the 93 villages of this area, a number of villages were selected. Sample households of the village and randomly classified and 12 villages were selected. In field studies, collecting required data, preparing questionnaire and getting interviews between the villages were the most important part. A questionnaire was designed including household questionnaire. The questionnaire consisted of closed questions. In designing questions, the Likert scale was used. The validity of the test Cronbach's alpha was 0.77 percent. For statistical analysis of data from one sample t test, chi-square test and ANOVA test in spss software were used.

Table 2. Sample villages and distributed questionnaires among them

Rural district	The name of the village	The number of households	Total population	The number of questionnaires
Zarivar	Kani kabod	41	181	7
	siyanav	196	845	33
	Kani Sanan	171	660	28
	Dara tefey	244	924	41
	ney	656	2560	55
khawmirabad	Savjey	280	1152	44
	Anjiran	111	455	22
	Yangijeh	90	362	17
Sarkol	Balek	139	529	24
	Darziyan	112	451	21
	Sharani	113	472	23
	marg	89	365	15
Total	12	41	8956	330

Source: Findings, 2017

RESEARCH AREA

Lagoon flows 3 km West Marivan in Kurdistan province and the tourist attractions of the province. Sweet pond water is boiling and is funded from a number of source floors. In winter the lake freezes completely. The wetlands in longitude '8 ° 46 latitude '32 ° 35 and the height of 1285 meters above sea level is located. During Zarivar Lake about 5 km and a width of about 1.6 km. The extent of wetlands because of changes in the volume of water in different seasons changing and the maximum depth of 5.5 meters. The lagoon's largest and most beautiful fresh water lake west of Iran and one of the most unique freshwater lake in the world and all circumstances considered a wetland of international development. Approximate size pond water is about 30 million cubic meters. Wetland about 22, 5 km and the average rainfall is 786 mm per year. Relative humidity equal to 4/58 percent and average annual evaporation of 1900 mm has been reported (Environmental Protection Agency, 1393). Villages of 200 meters to 3 kilometers lagoon flows have been chosen. The main activity is agriculture and horticulture villages and, in some cases, the work in border markets. Despite the economic situation and the Lake tourists in the villages around, the wetlands have been affected.

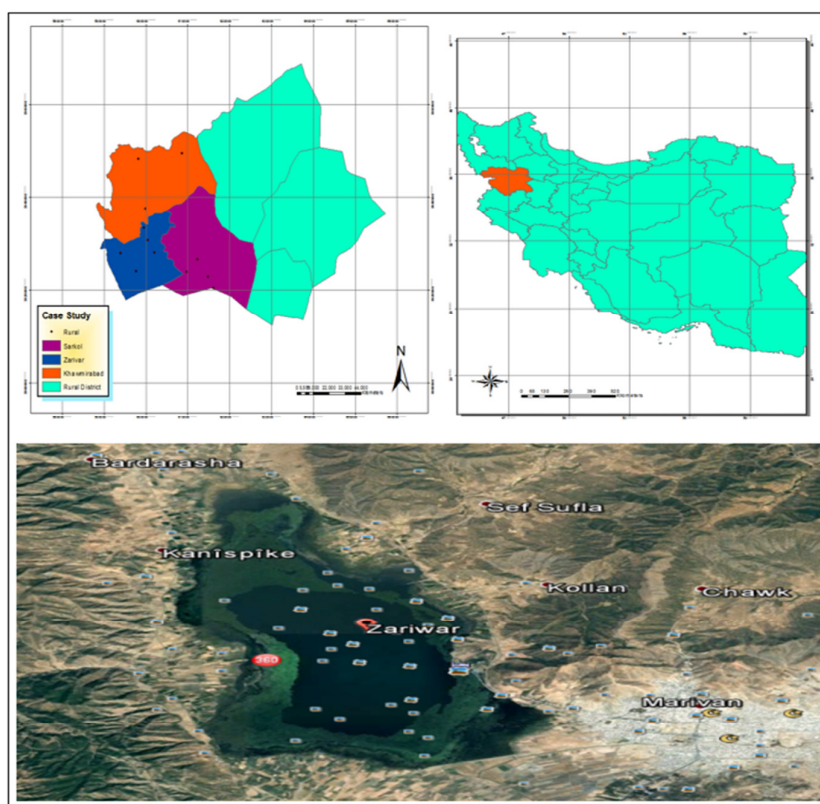


Figure 2. Location of the study area

DESCRIPTIVE FINDINGS

Check the individual characteristics of the respondents indicate that all respondents were male, 15.1% of respondents aged 25-15 years in terms of age, 33.5% of respondents aged 35-25 years, 30.3% of

respondents age 45-35 years, 16.1% of respondents aged 55-45 years and 5.0% in those aged over 55 years have been. In terms of education, 1.8 percent illiterate, 20.6% of subjects at the elementary level, 28.9 percent of people in the middle, 27.1 percent of high school and 21.6 percent of those in upper secondary level. Nearly 80 percent of people have their home at his residence. Job status among respondents are 37.2% of agricultural jobs, 20.2% of public service jobs (shops, taxi driver between rural-urban), 5.5% of government employees, 14.2% of self-employed workers and 22.5% of other work.

Table 3. The individual characteristics of respondents in rural areas, border areas

Individual characteristics of respondents			
Index	Classification	Frequency	Percent
Age	15 - 25	1338	100
	25-35	0	0
	35-45	33	15.1
	45-55	73	33.5
	55 >	66	30.3
Level of education	Illiterate	35	16.1
	Primary	11	5.0
	Guidance	4	1.8
	High school	45	20.6
	High school graduate or higher	63	28.9
Main job	Farmer	59	27.1
	Public services	47	21.6
	Government's employee	173	79.4
	Working	20	9.2
	Dehyaran	25	11.5
	Other	81	37.2
Job Satisfaction	Too much	44	20.2
	A lot	12	5.5
	So much for	31	14.2
	Little	49	22.5
	Very little	1338	100

Source: Findings, 2017

Table 5. Dimensions and indicators measured in this study

Dimension	Criteria
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Ecological-environmental	Diversity of flora and fauna, water resources management, management of wastewater agriculture, organic farming, water pollution lake, nature conservation and biodiversity, the pollution of the environment, increase public participation in protecting ecosystems, use of building materials suitable for harvesting allowed water from the wetland and watershed wetlands, lack of wastewater management alternatives, the harm to the animals wetlands) wildlife (land use changes as a result of tourism activities, shortage of farm and garden organ in the villages of the region, consuming large amounts of fertilizer and pesticides Chemicals in food production.
Economic	Transport facilities, access to weekly markets, poor access to employment opportunities in the area, lack of eco-cottage industries in rural areas, rural women's employment, increase the purchasing power of the local community.
Sociocultural	Recognition of the environment, the awareness of people about the connection between the village and the region, people's belief in wetland conservation as cultural heritage, lack of opportunities for public participation in decision-making and programs for the protection of wetlands, Development Education environmental learning, sense of cooperation in tourism development and maintenance of wetland ecosystems.

Source: Findings, 2017.

Table 6. Evaluation of the effects of wetland ecosystem conservation and environmental sustainability of tourism in rural areas of the respondents

Dimension	Variables	Too much	Much	Some what	Little	Very little	Average	Chi-squ are	Sig
	Diversity of flora and fauna	18.70	14.00	12.50	24.00	30.80	2.32	36.555	.000
	water resource management	15.30	19.30	18.10	24.30	23.10	2.21	8.735	.000
	Agricultural waste management	21.80	14.00	16.50	23.70	24.00	2.10	12.941	.000

Ecological	Organic farming	31.80	15.90	23.40	5.60	23.40	3.51	61.850	.000
	Reducing water pollution in the lake	15.30	6.50	26.50	20.60	31.20	2.56	59.421	.000
	Conservation of Nature and Biodiversity	20.20	11.80	16.50	25.90	25.50	2.85	23.097	.000
	Reduce the pollution of the environment	12.10	4.00	18.70	27.70	37.40	2.73	109.078	.000
	Increase women's participation in the protection of ecosystems	20.60	29.90	17.80	19.60	12.10	3.27	26.523	.000
	The use of appropriate building materials	10.30	19.90	24.90	28.70	16.20	2.32	33.408	.000
	Allowed to withdraw water from the pond	39.60	32.40	11.80	6.20	10.00	3.82	143.377	.000
	Alternative Wastewater Management System	16.20	16.80	19.60	22.40	24.90	2.60	8.798	.000
	The damage to wetland animals	4.70	9.00	28.30	35.50	22.40	2.99	107.769	.000
	Land use change as a result of tourism activities	17.10	22.70	12.50	23.10	23.70	3.12	16.274	.000
Environmental	Organic farms and gardens in rural area	20.20	7.80	26.20	20.20	25.50	3.70	34.997	.008
	Fertilizer and chemical pesticides in agriculture	19.60	26.50	22.40	17.40	14.00	3.86	14.498	.006
Economic	Transport facilities	24.00	34.00	20.90	16.20	5.00	3.44	72.442	.001
	Weekly market access	23.10	30.20	18.40	18.10	10.30	3.48	104.218	.000
	Access to employment opportunities in the area	19.30	5.60	13.40	29.00	32.70	2.50	153.938	.000
	Eco cottage industries in villages	16.20	17.40	15.30	25.90	25.20	2.50	182.598	.000
	Employment for rural women	17.3	23.5	20.0	29.4	9.8	3.82	27.098	.000
	Increase the purchasing power of the local community	12.2	12.2						
Social and	Recognizing the environmental area	11.8	38.4	33.3	3.25	113.843	.000		
	Awareness of the linkage between the village and the region	20.90	25.20	22.10	18.40	13.40	3.86	12.660	.000
	People believed to protect the wetlands as cultural heritage	14.30	14.03	24.60	26.80	19.90	2.83	21.134	.000
	Public participation in decision-making	29.30	37.40	13.70	11.20	8.40	3.68	102.629	.000

	and wetland conservation programs								
	Development of environmental education and learning	13.10	19.60	17.80	28.70	20.90	2.25	20.667	000
cultural	Sense of cooperation in tourism development and maintenance of wetland ecosystems	20.0	34.5	22.7	13.3	9.4	3.58	47.765	.000

Source: Findings, 2017

In this study in the context of assessing the impact of tourism in maintaining wetland ecosystem and environmental sustainability in rural areas, 27 indicators defined and each of these indicators in SPSS studied and analyzed, which results in Table 6 have been shown. In the table the consent of respondents to each indicator, average and chi-square are studied. In the field of ecological and environmental dimensions, 15 indicators (diversity of flora and fauna, water resources management, agricultural waste management, organic farming, water pollution lake, nature conservation and biodiversity, the pollution of the environment, increase women's participation in the protection of ecosystems use of construction materials good, picked allow water from the wetland and watershed wetlands, lack of wastewater management alternatives, the harm to the animals wetlands) wildlife (land use changes as a result of tourism activities) used according the optimal numerical test (3), the average on most parameters to measure the low post favorable than assessed value and alpha level of 0.00 were significant.

One of the main factors in more evaluations performed on the development of tourism in local communities has been emphasized, the economic effects of tourism. Tourism in recent years as a very important economic factor is of great concern; as well as all the places where the tourism industry will need to develop appropriate tourism professionals and executive management. The economic dimension in the study 6 index (transport facilities, access to weekly markets, poor access to employment opportunities in the area, lack of rural industries compatible with the environment in rural areas, employment of rural women, increase the purchasing power of the local community) have been used according to the mean square of each indicator; tourism had a positive effect on the economic situation of the rural areas of wetland ecosystems. Programs for wetland protection, development of environmental education and learning, sense of cooperation in tourism development and maintenance of wetland ecosystems have been used; according to the index that the social dimension of cultural tourism in rural areas of wetland ecosystems have a positive impact.

Table 7. The test results T wetland ecosystem conservation and sustainable environment impact of tourism in rural areas

Index	Mean Difference	Standard deviation	Index T	Sig	95% Confidence
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					Interval of the Difference	
					Upper	Low
Ecological-environmental	2.1169	1.209	0.007	46306	-.3000	-.1139
Economic	3.8131	4.374	.000	.89774	0.0106	0.0444
Social and cultural	3.2764	1.479-	0.003	31268	0.0326	0.0046

Source: Findings, 2017

In one sample T-test number 3 as desirable numerical or theoretical middle test is intended. If the lower and upper limits are positive posts will be larger than the observed value. And when both are negative numerical average calculated from the theoretical middle or utility of the test and show less favorable conditions is not. The analysis shows that the level of tourism in economic and socio-cultural aspects has a positive impact on the wetland ecosystem conservation and sustainable environment in rural areas.

Table 8. The analysis of the impact of wetland ecosystem conservation and environmental sustainability of tourism in rural areas

Index		Sum of Squares	df	Mean Square	F	Sig.
Ecological _ environmental	Between Groups	27.814	22	23.907	24.367	.000
	Within Groups	260.461	357	.730		
	Total	268.275	359			
Economic	Between Groups	15.517	2		10.318	.000
	Within Groups	244.865	357	7.759		
	Total	260.383	359	.686		
Social and cultural	Between Groups	.826	2		653.	.000
	Within Groups	277.507	357	.6.543		
	Total	278.333	359	.777		

Source: Findings, 2017

To explain whether the environmental factors of ecological, economic, social and cultural tourism in the wetland ecosystem conservation and environmental sustainability in rural areas have a significant

difference or not, the one-way analysis of variance was used. According to the results Table 8 and the significance level (0.000) can be said that to amount F for the impact of tourism on wetland ecosystem conservation and environmental sustainability in rural areas has been significant. In other words, this value indicates that at least there is a significant difference between the two; to check the claim of pair wise comparisons (Tukey) was used in the Table 8.

Table 8. ANOVA multiple comparisons test

Exam type	Index	Rural	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Upper Bound	Lower Bound
Tukey	Ecological-environmental	Economic	.32389	.10066	.000	-.0770	-.5508
			.00526	.12733	.000	.2941	-.3052
		Social and cultural	-.32389	.10066	.001	.5508	.0770
			.33833	.13505	.001	.6262	-.0095
	Economic	Near	-.11944	.09760	.000	.3492	-.1103
			.58611	.12346	.000	.8767	.2955
		Middle	.11944	.09760	.001	.1103	-.3492
			.46667	.13095	.000	.7749	.1585
	Social and cultural	Near	-.10236	.10391	.000	.1390	-.3501
			-.06389	.13143	.001	.2454	-.3732
		Middle	.10236	.10391	.001	.3501	-.1390
			.04267	.13940	.001	.3698	-.2864

Source: Findings, 2017

Meanwhile, the Kruskal-Wallis test results also show that the alpha level of 0.001 significant wetland ecosystem conservation and environmental impact of tourism in rural areas is sustainable. As the ratings show that an average rural flows to the highest allocated, that may be because it flows near the villages of the district wetland ecosystem in the region: by consequence, the impacts (positive and negative) of tourism on the ecosystem in the villages.

Table 8. Effect relationship between the villages' wetland ecosystem conservation and environmental sustainability of tourism in rural areas Kruskal-Wallis test

	Rural district	Count	Average ratings
Impact of tourism in wetland ecosystem conservation and sustainable environment	Khaw and Mirabad	83	163.46
	Zarivar	96	199.36
	Srkl	151	154.17
	Total	330	
	Df	2	
	Sig	0.001	

Source: Findings, 2017

RESULTS

Development of tourism in an area with tourist arrivals continue to change the landscape of human and natural, socio-cultural changes, economic and environmental ecology. Tourism needs to provide recreation areas for tourists and create jobs and income for residents of local communities without damaging the environment, local communities and natural ecosystems. The wetland ecosystems, due to the wide range of ecological attractions and unique natural and cultural landscape, are highly regarded. The results show that tourism in economic and socio-cultural aspects have a positive impact on the wetland ecosystem conservation and sustainable rural environment. But there are also some negative effects on the environment and the stable wetland ecosystems. The findings of the Kruskal-Wallis test show that tourism in villages near the wetland ecosystem Zarivar (Yangijeh, dara tefey, Siyanav, kani kabod, Kani Sanan and ney) is the most affected by the economic dimension of the rural areas. Also, there is a negative impact on the region in the field of the environment (pollution of the lake water, lack of protection of nature and biodiversity, environment pollution, harm to animals, etc.).

SUGGESTIONS

1. Brnamh planning and proper management to prevent water pollution and protect the environment and surrounding wetland ecosystem around the Lake.
2. Encourage people to protect nature and the ecosystem around the lagoon and also avoid harming

wildlife wetland ecosystems.

3. Provision of infrastructure and services needed by tourists and locals

4. Proper management of water resources and water are allowed harvesting of wetland for tourists and locals.

5. Alternative wastewater management systems for rural areas, especially rural areas around the wetland ecosystem.

6. Avoid the use of fertilizers and chemical pesticides in agriculture and horticulture.

7. Learning and teaching people to understand the environment and the necessity to protect wetlands as cultural heritage.

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THE CAUSALITY BETWEEN MACROECONOMIC FACTORS ON STOCK RETURNS: A STUDY OF PAKISTAN EQUITY MARKET

Muhammad Tahir aimtahir@ciit.net.pk

Anni Gul annieasif27@gmail.com

Somia Qazi amos13@yahoo.com

Comsat Institute of Information Technology Abbottabad, Pakistan

Abstract:

Purpose: The purpose of this study is to investigate the causality between macroeconomic variables and stock returns in Pakistan equity market (Karachi stock index) for the period of January 2009 to November 2015. It will give proper guidelines to investors, policy makers and financial institutions of taking decisions while investing in Pakistan. Moreover, the study will identify those macroeconomic variables that have a statistically significant relationship with stock returns in context of Pakistan, being an emerging market. *Design/methodology/approach:* For this study, eight macroeconomic variables have been selected. The impact of these variables on stock returns were analyzed as to give proper guidelines to future investors, policy makers, and financial institutions in Pakistan and help them in decision making. *Findings:* The APT model was used for this study. The results calculated showed there is a positive and significant relationship between the stock returns and the tested macroeconomic variables; namely, Consumer price index, Exchange rate, Interest rates, money supply (M3). While, Crude oil prices, Inflation rate, Industrial production index, T-BILLS has a negative effect on stock returns in the equity market of Pakistan. *Research limitations/implications: Contribution of Study towards the body of knowledge:* This study will provide latest findings i.e. from 2010-2015, using eight important variables to the investors on the basis of which they will be able to take investment decisions.

Keywords: Macroeconomics, Non-macroeconomic Forces, Karachi Stock Exchange, Regression Analysis

1. Introduction

Returns are the gains or losses of a security in a particular period of time. The return comprises of the income and the capital gains relative on an investment. It is usually presented in the form of percentage. These stock returns are dependent upon a number of variables. To begin with, Roll and Ross (1980) identified key major four factors i.e. unanticipated inflation, risk premiums, term structure of interest rates, and industrial production, that affect stock returns. Adding to this area, (Fama & French, 1993) identified some common risk factors that prevail in market and affect the returns on stocks and bonds. Further, there are three stock market factors, i.e. market factor, firm size and book-to-market equity. And two bond market factors, i.e. maturity of bond and default risk. These factors bring variations to stock returns and bond returns. Their findings seemed to be explaining average returns that an investor gets on stock and bonds.

To an investor it is of high interest to know that how much returns he is going to earn for the money he is investing in a particular stock or security. Further, an investor can also not underestimate number of factors that prevail in a particular market and may affect his investments. For this, he keenly observes certain macroeconomic variables that can probably increase or decrease his stock returns. In this paper, efforts are

done to guide investors to keep in mind some macroeconomic variables that might affect his earnings over stocks in Pakistan.

This paper analyses various macroeconomic variables, as in, are inflation rate, the interest rate, money supply (M3), real exchange rate, consumer price index, industrial production index, crude oil prices, Treasury bill rate which affect stock returns in Pakistan. This particular section consists of introductory section, review of the literature regarding the area under study, hypothesis development, sources of data, results and discussions, conclusion, policy implications, and future recommendations.

2. Literature Review

Review of past literature holds grave importance in order to understand the topic under study in a best possible way. To begin with, this section would deal with studies in advanced economies of the world. A number of studies have been conducted so far, around the globe, to examine the relationship between macroeconomic variables and stock returns. (Samadi, Bayani, & Ghalandari, 2012) argued that while it's an area of interest to many but little have been concluded so far regarding relationship between macroeconomic variables and stock returns because economic variables vary from country to country. Few important studies are performed by Roll and Ross (1980), (Fama & French, 1993), (Kibria et al., 2014), (Sadorsky, 2001) (Ilahi, Ali, & Jamil, 2015). (Maghyereh, 2002) etc. A brief overview of the studies is presented in this section.

2.1. Inflation and Stock Returns

Inflation is the rise in the prices of goods and services which reduces the purchasing power of the currency. It is of great concern to the investor, as prices increases, customer's purchases few goods and hence overall profits decline. Studies are done to see the relationship between inflation and stock returns.

For instance, in an interesting study in Nigeria, (Ibrahim & Agbaje, 2013) analyzed long run relationship between stock returns and just a single macroeconomic variable i.e. inflation. He applied technique of Autoregressive Distributed Lag (ARDL) and used monthly data of share price index taken from the Nigerian Stock Exchange and Nigerian Consumers Price Index from January 1997 to 2010. He witnessed positive results in long run and short run as well. While contrary to his findings, in another study, negative relationship between returns on common stock and inflation was observed in post-world war era, which contradicted Fisher's hypothesis. The Fisher's hypothesis stated a positive relationship between inflation and returns (Nelson, 1976).

In another study by using GARCH model concluded that stock returns are in considerable correlation with inflation and money growth (Flannery & Protopapadakis, 2002). This relationship was studied in Istanbul Stock market for the period of January 2001 till September 2005 on monthly basis. They found that unanticipated inflation had a noteworthy effect in explaining stock market returns in various portfolios. Rojoub, et al. (2009). For the same country, (Tursoy, Günsel, & Rjoub, 2008) by employing 13 macroeconomic variables and applying OLS technique observed various macroeconomic variables. Regarding inflation, they didn't find any considerable relationship between stock returns and inflation rate.

Furthermore, in a study in Saudi stock exchange, inflation was found to have impact on various sectors and this effect is diverse. (Kalyanaraman, 2015). In another country Jordan, a few macroeconomic variables were selected by using monthly series data from January 1987 to December 2000. They used vector error correction model for their study. Results of the study were that inflation is positively linked with stock price movements. (Maghyereh, 2002). In another study by using GARCH model concluded that stock returns are in considerable correlation with inflation and money growth. (Flannery & Protopapadakis, 2002)

(Ouma & Muriu, 2014) analyzed Kenya's market by using OLS technique to test APT and CAPM models. Their findings were that inflation and money supply acts as major determinants of returns on Nairobi stock exchange.

In Pakistan time series data from January 2007 to December 2012 and multiple regression model was performed over it. Three variables, interest rate, exchange rate and inflation rate were studied. The outcomes of their study were that there is a weak relationship between macro-economic variables and stock

returns.(Ilahi, et al., 2015)

Singh, Mehta, & Varsha, (2011) presented their empirical findings by employing regression model. They analyzed portfolios rather than individual stocks and studied relationship between economic growth and stock market. The results were that inflation rate has negative relation with the returns of portfolios for medium and big size companies in Taiwan.

2.2. Interest Rate and Stock Returns

Another variable which is discussed by different researchers is interest rate. (Rjoub, et al., 2009) said in their work that firms are directly affected by the discount rates. And interest rate is highly correlated with other macroeconomic variables and this can be problematic in calculations. For this instead of interest rate, term structure of interest rate must be used. i.e. difference between long-term and short-term interest rate.

Gjerde and Saettem (1999) Used the multivariate vector autoregressive (VAR) approach on Norwegian data to find if same relationship is applicable in a small, open economy or not. Dissimilar to European markets, the results were consistent with work done in the US and Japanese markets, where variations in the real interest rates affects both i.e. inflation and stock returns. Additionally, stock market responds accurately to oil prices rather than domestic activities

Additionally, some researchers like (Sadorsky, 2001) in Canadian market, (Rjoub, et al., 2009) in Istanbul stock exchange, (Maghyreh, 2002) in Jordan market, (Issahaku, et al., 2013) in Ghana, while studying these markets found a positive correlation between stock returns and interest rate. However, (Ozbay, 2009) concluded that interest rate is a negative determinant of stock prices in Turkey. Adding to this, for the same country, (Tursoy, et al., 2008) also found an insignificant relationship between stock returns and interest rates for Turkey.

Next, (Ilahi, et al., 2015) studied Pakistan's market and argued a weak correlation between interest rates and stock returns. Likewise, in case of Ghana, time series data from January 1995 to December 2010 was used to study stock performance and macroeconomic variables. For this, Vector Correction Model (VECM) was employed. The study indicated a positive long-term relationship between stock returns and interest rate. (Issahaku, Ustarz, & Domanban, 2013).

2.2. Money Supply and Stock Returns

To proceed further, another important macroeconomic variable which is focused in this study is money supply. (Naik, 2013) termed the relationship between stock prices and money supply as full of ambiguities. (Ouma & Muriu, 2014) called money supply an important determinant of stock returns in Kenya at Nairobi stock exchange. (Ahmad, Abdullah, Sulong, & Abdullahi) analyzed Nigerian market and (Rjoub, et al., 2009) in Istanbul market had similar findings of noteworthy effect of money supply on stock returns. Likewise, a study on Pakistan's Lahore stock exchange by (Sohail & Hussain, 2009), found a positive and significant relationship between money supply and stock returns in long-run. Whereas, in a study at by (Singh, et al., 2011) presented negative relation between stock returns and money supply.

Furthermore, in Taiwan, by using regression analysis, the impact of Macro and non-macroeconomic variables on stock returns was studied by using data collected from hotel companies listed on the Taiwan Stock Exchange.. It was concluded that among macroeconomic variables only money supply and unemployment rate explains the stock returns. While, non-macroeconomic variables like international events and wars had a considerable effect on stock returns (Chen, et al., 2005).

(Tursoy, et al., 2008) by applying OLS technique observed various macroeconomic variables, i.e. Money supply (M2) being one of these variables had significant relationship with stock returns in Istanbul Stock Exchange. On contrary, in Greek stock market, short run and the long run equilibrium relationships between selected macroeconomic variables was studied for the period of 1990 to 1999. The results revealed that there exist long and short run relationship between money supply, inflation, trading volume and stock prices in Athens stock market (Patra & Poshakwale, 2006)

A study in Saudi stock market, concluded that money supply that the outcome of the macroeconomic variables (i.e. money supply being one of the variable of study) on the returns of the various sectors is diverse (Kalyanaraman, 2015)

In case of Ghana, time series data from January 1995 to December 2010 was used to study stock performance and macroeconomic variables. For this, Vector Correction Model (VECM) was employed. The study indicated a positive long-term relationship between stock returns and variables like interest rate, FDI, and money supply. (Issahaku, et al., 2013)

2.3. Real Exchange Rate and Stock Returns

Exchange rate is existing marketplace cost for which one currency can be replaced for another currency. For instance, if the U.S. change rate for the Pakistani Rupee is \$1.60, this shows that 1 American Dollar can be changed for 1.6 Pakistani Rupee (Kibria, et al., 2014)

The degree of trade balance and a country's importance to international trade determines the effects of exchange rate on its stock prices. Depreciation of the domestic currency increases investment in foreign currency which upsets stock prices in home country. However, if domestic currency appreciates, it decreases the value of exporting firms, which negatively affects the stock prices. On the contrary, if a country dominates in imports then the exchange rates appreciation, lowers costs on imports and produces a positive impact on stock prices. (Naik, 2013)

There are contradicting views about exchange rate and stock returns in different countries for economic conditions of countries differ. For instance, (Sohail & Hussain, 2009) concluded from their studies that there is a positive correlation. (Ahmad, et al.) analyzed Nigerian market and used Autoregressive Distributive Lag (ARDL) and Vector Autoregressive Model (VAR). They employed six variables namely money supply, nominal effective exchange rate, short term treasury bills rate, FDI, gross domestic per capita income, and gross domestic income for the time period from 1984-2013. They concluded that either financial institutions, policy makers, or private individual investors, all must consider the macroeconomic indicators while formulating financial and economic policies, diversification strategies, portfolio allocation and rebalancing.

(Tan, 2011) added to the existing literature regarding topic under study. They used multiple Regression model and analyzed data from 2005 to 2009 for Beverage and Food Industry. The results revealed that out of total nine variables only three macroeconomic variables were significant. i.e. foreign exchange reserves, consumer confidence index, and gold price. These three variables had a considerable and positive relationship with stock returns in beverages and food industry which are listed on the Shenzhen stock exchange, China. In another country, Jordan, results of the study were that the macroeconomic variable, foreign reserves, positively linked with stock price movements. (Maghyreh, 2002)

There is also evidence of insignificant or negative relation between exchange rates and stock returns, as in, in a study in Taiwan by (Singh, et al., 2011) and (Ouma & Muriu, 2014) after analyzing Kenya's market argued a negative relation. Moreover, in Pakistan (Ilahi, et al., 2015) concluded a weak correlation between exchange rates and stock returns. And also a negative relationship was found between exchange rates and the Canadian oil and gas stock prices (Sadorsky, 2001)

(Tursoy, et al., 2008) by employing 13 macroeconomic variables and applying OLS technique observed various macroeconomic variables presented results that there is no significant relationship between macroeconomic variables including exchange rate and the stock returns in Istanbul Stock Exchange.

Looking at conditions in Greek stock market, short run and the long run equilibrium relationships between selected macroeconomic variables was studied for the period of 1990 to 1999 and no significant relationship was found in between the exchange rates and stock prices. (Patra & Poshakwale, 2006)

2.4. Consumer Price Index and Stock Returns

Consumer price index (CPI) measures variations in the price level of market basket of consumer goods and services purchased by consumers. Its relation with stock returns is seen differently by different researchers. For instance, in a study on long run and short run relationship between macroeconomic variables and Lahore stock exchange was conducted, using monthly data from December 2002 to June 2008. The results indicated that there is a negative effect of consumer price index on stock return. (Sohail & Hussain, 2009)

(Tursoy, et al., 2008) by employing 13 macroeconomic variables and applying OLS technique observed

various macroeconomic variables, i.e. Money supply M2, crude oil, Consumer price index, imports, exports, gold prices, exchange rates, interest rates, GDP, foreign reserves, unemployment rate, market pressure index. They presented results that there is no significant relationship between macroeconomic variables and the stock returns in Istanbul Stock Exchange.

2.5. Industrial Production Index and Stock Returns

Another important variable of the study is industrial production. As the economic activities increases and so the industrial production index moves upward. It results in higher earnings for the companies and hence leads to increase in stock valuation resulting in stock gains. For this a number of studies are done to see this relationship.

A study in Saudi stock market selected some macroeconomic variables and applied co integration technique on the returns of 15 listed sectors. These variables under study were oil prices, exchange rate, money supply, inflation, industrial production and stock prices on global level. The conclusion was that the outcome of the macroeconomic variables on the returns of the various sectors is diverse (Kalyanaraman, 2015).

In a study at Jordan, not very much far from Saudi Arabia, a few macroeconomic variables were selected by using monthly series data from January 1987 to December 2000. They used vector error correction model for their study. Results of the study were that the macroeconomic variables i.e. exports, foreign reserves, interest rates, industrial production, and inflation are positively linked with stock price movements. Further, the perception of investors regarding stock price movement is also sensitive to political and economic events taking place in the neighboring Arab countries (Maghyreh, 2002)

Another study on data from Lahore stock exchange was conducted to study same relationship. The results indicated that industrial production had a positive and considerable impact on the stock returns in long run. (Sohail & Hussain, 2009)

2.6. Crude Oil Prices and Stock Returns

Crude oil in the unrefined petroleum. Its prices act as a macroeconomic variable and have a considerable impact on equity markets. Studies in different countries suggests that there exists a relationship between crude oil prices and stock returns.

In Canadian oil and Gas industry was examined by using multifactor market model. It was found that factors like crude oil prices, interest rates, and exchange rate has considerable impacts on stock price returns in Canadian market. Moreover, a positive relationship was witnessed between oil prices and oil and gas stock prices. (Sadorsky, 2001). However, (Tursoy, et al., 2008) by employing 13 macroeconomic variables and applying OLS technique, studied some macroeconomic variables, and crude oil being one of them. He stated in his results that that there is no significant relationship between crude oil prices and the stock returns in Istanbul Stock Exchange.

Furthermore, for Saudi stock market oil prices outcome of the on the stock returns of the various sectors is diverse (Kalyanaraman, 2015)

2.7. Treasury Bill Rate and Stock Returns

Treasury bill is a short term debt instrument issued by government for less than one year. Like other countries it is a risk free security traded in Pakistan and backed by Pakistani government.

(Ahmad, et al.) analyzed Nigerian market and used Autoregressive Distributive Lag (ARDL) and Vector Autoregressive Model (VAR). They employed six variables namely money supply, nominal effective exchange rate, short term treasury bills rate, FDI, gross domestic per capita income, and gross domestic income for the time period from 1984-2013. They concluded that either financial institutions, policy makers, or private individual investors, all must consider the macroeconomic indicators while formulating financial and economic policies, diversification strategies, portfolio allocation and rebalancg.

3. Literature Gap

A number of studies had been conducted so far to study the causality between macroeconomic variables and stock returns. For this, various models and variables were employed. Same like other countries in the world, in Pakistan this topic was studied. In this research paper. Same relationship is investigated for the period of 2009 to 2015. And the variables selected for this study are unanticipated inflation rate, interest rates, money supply, CPI, T-bills, Exchange Rate, Crude Oil Prices, and Industrial Production Index. These are some potential variables that might be the right macroeconomic forces that affect the performance of financial markets.

4. Hypothesis Development

The hypothesis relevant for this study is presented as following:

- H1. There is negative relationship between stock returns and inflation rate.
- H2. There exists a negative relationship between stock returns and interest rate.
- H3. The relationship between stock returns and exchange rate is positive.
- H4. There is a positive relationship between stock returns and money supply (M3).
- H5. The relationship between stock returns and T-Bill rate is negative.
- H6. There is a direct relationship between stock returns and industrial price index.
- H7. The relationship between stock returns and crude oil price is positive.
- H8. The relationship between stock returns and consumer price index is positive.

4. Methodology

The APT Model

In this study eight macroeconomic variables are selected whose impact on stock returns is examined. The factors tested in this study are inflation rate, the interest rate, money supply (M3), real exchange rate, consumer price index, industrial production index, crude oil prices, and Treasury bill rate. The model presented here is suggested by Rjoub, et al. (2009)

$$R_t = \alpha + \beta_1 (\text{InfR}) + \beta_2 (\text{TERST}) + \beta_3 (\text{MONSP}) + \beta_4 (\text{EXCGR}) + \beta_5 (\text{CPI}) + \beta_6 (\text{IPI}) + \beta_7 (\text{COP}) + \beta_8 (\text{TBR}) + \mu_t$$

Symbol: Factors

InfR: Inflation Rate

INT: Interest rate

MONSP: Money supply M3

EXCGR: Real exchange rate

CPI: Consumer Price Index

IPI: Industrial Production Index

COP: Crude oil Prices

TBR: Treasury bill rate

Where R_t is the dependent variable representing the actual returns on stock. β represents the reaction co-efficient which measures the change in returns on stocks for change in risk factors. Further, the macroeconomic variables are independent in nature. These are: IFIN, inflation Rate; INTT, interest rate; MONSP, Money supply (M3); EXCGR, real exchange rate; CPI, Consumer Price Index; and IPI, Industrial Production Index; COP, Crude oil price; T-B, Treasury bill rate.

Sources of Data:

The source of data for the research study is Karachi stock exchange, Pakistan Bureau of statistics, and State Bank of Pakistan. The time duration of data collected for the study is January 2009 to November 2015.

5. Data

To get consistency in research analysis data for all variables, i.e are inflation rate, the interest rate, money

supply (M3), real exchange rate, consumer price index, industrial production index, crude oil prices have been converted to log form. And data for T-bills rate is taken in percentage form. Further, for further evaluation of data, and to find relationship between dependent and independent variables, the statistical software i.e. E-views 7 is used.

6. Results and Discussions

This section consists of the finding the relationship between stock returns and macroeconomic variables.

Table no 1. DESCRIPTIVE.

	COP	CPI	EXR	INFR	INTR	IPI	M3	RT
Mean	9.0251	5.1428	4.5488	2.0464	2.3047	4.7863	16.117	0.0172
Std. Dev.	0.2592	0.1351	0.0805	0.6063	0.2266	0.1297	0.2272	0.0510
Skewness	-0.791	-0.47	-0.140	-1.278	-0.540	0.55	-0.098	-0.5577
Kurtosis	2.4028	2.034	1.501	3.844	2.606	8.700	1.772	3.229

Table 4 depicts the kurtosis. For COP and INTR its normal but for the other variables it's either very high or less than 3. For Skewness, considering the assumption of OLS that all data must be normal. In our calculated results except IPI the other data is negatively skewed.

Table no 2. Correlation results.

	COP	CPI	EXR	INFR	INTR	IPI	M3	TBILL
COP	1.0	0.035	0.057	0.518	0.33	-0.21	-0.103	0.2770
CPI	0.035	1.0	0.93	-0.75	-0.83	0.42	0.98	-0.82
EXR	0.05	0.93	1.0	-0.70	-0.85	0.47	0.93	-0.86
INFR	0.51	-0.75	-0.70	1.0	0.91	-0.44	-0.83	0.89
INTR	0.33	-0.83	-0.85	0.91	1.0	-0.50	-0.89	0.99
IPI	-0.21	0.42	0.47	-0.44	-0.50	1.0	0.49	-0.48
M3	-0.10	0.98	0.93	-0.83	-0.89	0.49	1.0	-0.88
TBILL	0.27	-0.82	-0.86	0.89	0.99	-0.48	-0.88	1.0

The correlation table for the pre-specified macroeconomic variables calculated for about 71 observations per variable are presented respectively, in table 1 and 2. The selected macroeconomic variables show that the correlation among them is weak. The COP has a weak positive correlation with the rest of variables while a weak negative correlation with IPI and M3. CPI and exchange rate showed strong negative relation with inflation rate, interest rates, and T-bills rate. Further, inflation rate and interest rates holds high negative correlation with CPI, exchange rate and M3.

The reason behind using dependent variables separately is to reduce chances of multi-collinearity. This occurs when there exist a strong high correlation ranking between 0.2 to 0.9 among explanatory variables. While estimating these results such problems weren't encountered.

Table no 3. Model summary.

R-squared	49.2989
Adjusted R-squared	0.4694060
Durbin-Watson stat	2.005
F-Statistic	230.8328
Prob (F-statistic)	0.000236

The empirical results presented in the table above are good in terms of the usual diagnostics. The value of adjusted R-squared indicates that 47% phenomenon is explained by our captured model. Moreover, the result shows that the independent variables are explaining 47% variation in the dependent variable-value is

greater than its critical value, showing that our estimated model is significant and is fit to be used. Further, the Durbin-Watson value is 2, which shows that data is free from auto-correlation

Table no 4. Regression Results.

Variable	Coefficient	t-Statistic	Prob.
C	0.641067	-0.334	0.739
COP	-2.047	1.051	0.0055
CPI	0.084206	0.241435	0.8074
EXR	0.152758	1.631576	0.0278
INFR	-0.000906	1.252897	0.0278
INTR	0.112427	1.214006	0.0917
IPI	-0.020844	1.945741	0.0164
M3	0.043191	1.822965	0.0482
TBILL	-25.92414	1.113077	0.0572

The value of co-efficient of COP is negative showing its negative relationship with stock returns. Its t-statistic and probability is significant showing that there is a significant relationship between stock returns and COP. As the value of COP will increase stock returns of investors will decrease. These results are consistent with the results of (RETURNS & EXCHANGE, 2013) who studied Canadian market and Gjerde and Saettem (1999) who studied Norwegian market, where stock returns responds to ups and downs in COP. However, in Saudi market (Kalyanaraman, 2015) concluded that the impact of COP on various sectors is diverse.

Further, the co-efficient value of CPI is positive and its probability and t-statistic is also significant, indicating a positive relationship between CPI and stock returns. If CPI increases in the country stock returns will respond positively. These results are in contradiction with results generated by (Sohail & Hussain, 2009), where they negative effect of CPI on stock returns in Pakistan's market.

The co-efficient calculated for exchange rate is positive, showing a positive relation between exchange rate and the stock returns. Its t-statistic and probability value is also positive indicating that there is a significant relationship between exchange rates and the stock returns. The results of this paper are consistent with (Tan, 2011) who analyzed data from Shenzhen stock exchange in China and (Sohail & Hussain, 2009) who studied Pakistan's market. On the other hand, these results are contradictory to the findings of (Patra & Poshakwale, 2006) studies in Greek stock market, (RETURNS & EXCHANGE, 2013) who studied Canadian market, in Pakistan (Ilahi, et al., 2015) concluded a weak correlation between exchange rates and stock returns, in a study in Taiwan by (Singh, et al., 2011) and (Ouma & Muriu, 2014) after analyzing Kenya's market argued a negative relation.

Furthermore, INFR has a negative co-efficient value and t-statistic is showing significance of the relation. Overall it indicates a negative relation between INFR and the stock returns. As Inflation rate in Pakistan increases it causes stock returns to decline. These calculated results are going in favor of the results calculated by (Singh, et al., 2011) for medium and big size companies in Taiwan and (Ilahi, et al., 2015) in Pakistan presented negative relationship in their results. On contrary, (Patra & Poshakwale, 2006) also found a significant relationship in Greek stock market, (Maghyereh, 2002) presented positive relationship in his study in Jordan market, (Ibrahim & Agbaje, 2013) in Nigeria and (Flannery & Protopapadakis, 2002) also witnessed a positive relationship between stock returns and inflation rate.

Another macroeconomic variable is INTR, its calculated co-efficient value is positive and t-statistic and probability value shows a significant relationship between interest rates that prevail in Pakistan and the stock returns. It means that with an increase in interest rates, stock returns will also go up and vice versa. These results are consistent with (RETURNS & EXCHANGE, 2013) who concluded a significant relationship between interest rates and stock rates in Canadian market and (Sadorsky, 2001) in Istanbul stock market. Further, (Maghyereh, 2002) found a positive correlation between stock returns and interest rate. However, (Ozbay, 2009) concluded that interest rate is a negative determinant of stock prices in Turkey. Adding to his results, (Ilahi, et al., 2015) studied Pakistan's market and argued a weak correlation between

interest rates and stock returns.

Surprisingly, the calculated co-efficient value for IPI is negative and its t-statistic and probability shows significance of the relationship. It means that with an increase in the industrial production, the stock returns for the investor goes down. It is contrary to the findings of (Sohail & Hussain, 2009) and (Maghyereh, 2002) who found a positive relationship in their study.

To proceed further, another important macroeconomic variable is money supply. The value of M3 is positive showing that with an increase in money supply in the country, stock returns will also get increased. The t-statistic value and probability is also showing significance of the relationship. (Ouma & Muriu, 2014) called money supply an important determinant of stock returns in Kenya (Sadorsky, 2001) had similar findings of positive correlation in Istanbul market. Whereas, in a study by (Singh, et al., 2011) presented negative relation between stock returns and money supply.

Last but not the least variable of the study is T-Bill. Its co-efficient value is negative and t-statistic and probability value shows significance of the relationship. It means with an increase in T-bill rate in Pakistan, stock returns will decrease.

Table x. xxxxxxxxxxxxxxxxx.

HYPOTHESIS	Accepted/Rejected
H1. There is negative relationship between stock returns and inflation rate.	Accepted
H2. There exists a negative relationship between stock returns and interest rate.	Accepted
H3. The relationship between stock returns and exchange rate is positive.	Accepted
H4. There is a positive relationship between stock returns and money supply (M3).	Accepted
H5. The relationship between stock returns and T-Bill rate is negative.	Accepted
H6. There is a direct relationship between stock returns and industrial price index.	Accepted
H7. The relationship between stock returns and crude oil price is positive.	Accepted
H8. The relationship between stock returns and consumer price index is positive.	Rejected

7. Conclusion

The study is about analyzing the relationship between pre-specified macroeconomic variables and stock market returns in Pakistan equity market for the period of January 2010 till November 2015., on monthly basis. In a nutshell, the results calculated showed there is a positive and significant relationship between the stock returns and the tested macroeconomic variables; namely,, Consumer price index, Exchange rate, Interest rates, money supply (M3). While, Crude oil prices, Inflation rate, Industrial production index, T-BILLS has a negative effect on stock returns in the equity market of Pakistan.

Recommendations

Future researchers can further investigate this area by studying the other important aspects of it in Pakistan. The present study only deals in few macroeconomic variables, while checking their impact on stock returns. There is a large pool of other variables like GDP, imports, exports, unemployment rate and market pressure index. etc. They can be added to present set of variables and can be analyzed by future researchers. Further, a comparative analysis can also be done on these variables in Pakistan's equity market and in other Asian and European markets.

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CRITIQUE OF PHILLIPS CURVE: A CASE STUDY OF ZIMBABWE ECONOMY

Shame Mukoka

Zimbabwe Open University, Harare, Zimbabwe

ABSTRACT:

The time series yearly data for Inflation and Unemployment from 1990 to 2017 were used in the study. First difference of the lagged data became stationary as suggested by the time series statistics. Johansen Cointegration test indicated a long-run relationship between the variables. Ordinary Least Squares (OLS) established a stable and permanent inverse relationship between Inflation and Unemployment in Zimbabwe, conforming to the Phillips Curve.

Keywords: Inflation, Unemployment, Stationarity and Ordinary Least Squares.

INTRODUCTION

Myth is stubborn, and in the case of the Phillips Curve, it has taken a considerable time frame of obvious contrary evidence to convince many economists that there is no fixed inverse relationship between unemployment and price inflation. Resurreccion (1), argued that the relationship between inflation and unemployment never existed, not even at the purely empirical level. Zimbabwe is one of the countries whose economic development is measured in terms of variables such as unemployment and inflation. Inflation and Unemployment are considered as important economic indicators in Zimbabwe, with unemployment rate considered as one of the macroeconomic factors that are used to measure the state of the economy. High inflation is coupled with increased price variability and at times can work against investors. The reduction of country's international competitiveness may be a result of inflation as the country's exports become expensive. This study, therefore, seeks to evaluate the relevance of the Phillips Curve in the Zimbabwe economy so that informed policies premised on inflation and unemployment may be recommended.

BACKGROUND TO THE PROBLEM OF THE STUDY

The Phillips curve shows the relationship between unemployment and inflation in an economy. Since its discovery by British economist AW Phillips, it has become an essential tool to analyse macro-economic policy world over, impliedly suggesting that it also applies in Zimbabwe. After 1945, fiscal demand management became the general tool for managing the trade cycle. The consensus was that policy makers should stimulate aggregate demand (AD) when faced with recession and unemployment, and constrain it when experiencing inflation. It was also generally believed that economies faced either inflation or

unemployment, but not together - and whichever existed would dictate which macro-economic policy objective to pursue at any given time. In addition, the accepted wisdom was that it was possible to target one objective, without having a negative effect on the other. However, following publication of Phillips' research in 1958, both of these assumptions were called into question.

Phillips analysed annual wage inflation and unemployment rates in the United Kingdom for the period 1860-1957, and then plotted them on a scatter diagram. The data appeared to demonstrate an inverse and stable relationship between wage inflation and unemployment. Later, economists such as Friedman (2), Akerlof et al. (3), substituted price inflation for wage inflation and the Phillips curve was born. When economists from other countries, with the exception of Zimbabwe, undertook similar research, they also found very similar curves for their own economies. In fact, Phillips (5), analysed annual wage inflation and unemployment rates and came up with a diagram presented below,

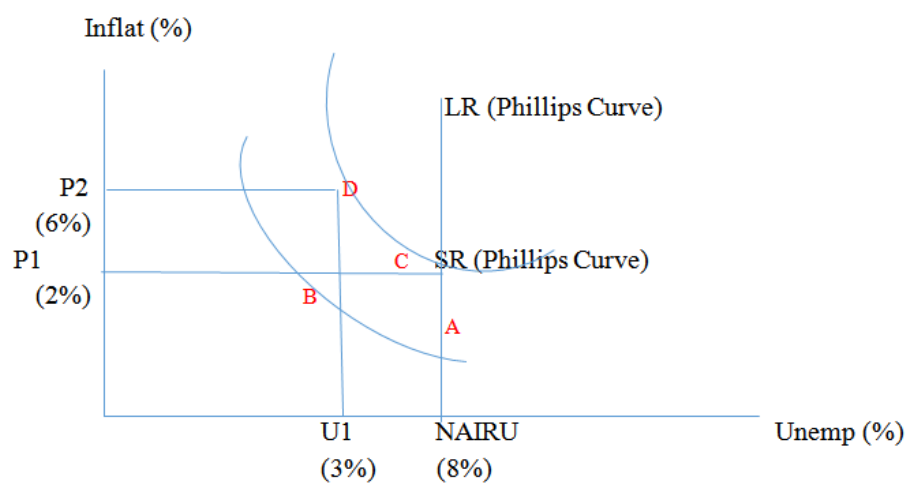


Figure 1. Phillips Curve: (Adapted from Advanced Macro-Economics: Sanjay Rode, 2012)

The curve suggested that changes in the level of unemployment have a direct and predictable effect on the level of price inflation in the short-run. In fact, a fiscal stimulus, and increase in aggregated demand (AD), would trigger an increase in the demand for labour as government spending generates growth. This also would lead in the declining in the fall of unemployment. The rightward shift of the AD would result in firms competing for fewer workers thereby raising nominal wages. This results in workers having greater bargaining power to seek out increases in nominal wages, thus wage costs surges. Faced with rising wage costs, firms pass on these cost increases in higher prices. It can, therefore, be concluded from this graph that whatever happens to inflation in the long-run, no changes are experienced on the unemployment rate. This study, therefore, determine whether or not, this rule of thumb holds in the Zimbabwe economy.

STATEMENT OF THE PROBLEM

Unemployment and Inflation is among the major problems not only in less developed and developing countries but also in developed countries (1). The two economic indicators have received much attention among economic analysts, governments, and scholars in pursuit of better understanding of their occurrence as well as their relationship. Zimbabwe had a record high of both inflation and unemployment rates (4), with policies introduced to manage the two macro-economic indicators with little success. Phillip's (5) conducted a study to determine the nature of relationship between the two macro-economic variables and an inverse relationship was found. This study is an evaluation of the Phillips curve, to determine whether the theory holds in Zimbabwe economy.

RESEARCH OBJECTIVES AND HYPOTHESIS

The objective of this study is to evaluate the Phillips Curve in the Zimbabwe economy, so that informed policies premised on inflation and unemployment may be recommended. The hypothesis that pinned this study is that unemployment is negatively related to inflation.

REVIEW OF RELATED LITERATURE

The concept of inflation has been defined as a persistence in the general price level of broad spectrum of goods and services in a country over a long period of time. Inflation has been intrinsically linked to money, as captured by the often said maxim '...inflation is too much money chasing too few goods'. Inflation was described by Oliver (6) as an economic situation when the increase in money supply is faster than the new production of goods and services in the same economy.

Forder (7), distinguish inflation from an economic phenomenon as a onetime increase in prices, or when there are price increases in a narrow group of economic goods or services. Balami (8) also sees inflation as a situation of rising a general price of broad spectrum of goods and services over a long period of time. It is, measured as the rate of increase in the general price level over a specific period of time. On the other hand, the International Labour Organisation (ILO) defines unemployment as numbers of the economically active population who are without work, but available for and seeking work, including people who have lost their jobs and those who have voluntarily left work (9). In Zimbabwe, unemployment measures the number of people actively looking for a job as a percentage of the labour force and is calculated by dividing the number of unemployed persons aged 15 years and above by the economically active population in that age range (4).

Although there seems to be convergence on the inflation-unemployment concept, its applications have been bedevilled with series of problems across countries. First, most published unemployment rates are recorded open unemployment. People's attitude on this varies from country to country. While this may be

high in developed countries and where government is committed to resolving unemployment problems, it is likely to be very low in countries with the opposite attributes. Okafor (10), pointed out the problem arising from the concept of labour force. In Nigeria, people below the age of 15 years and those above the age of 55, who are actively engaged in economic activities, are excluded from labour statistics surveys. Contrary to the Zimbabwe economy, where people with at least 15 years are included in labour statistics surveys (11). These factors have the result in underestimation or overestimation of unemployment thereby making international comparison very difficult. Furthermore, factors such as the preponderance of full housewives (but who are willing to be engaged in paid job) and unpaid family workers also contribute significantly to the underestimation of unemployment.

Frictional unemployment may be regarded as subset of structural unemployment, mainly reflecting temporary unemployment spells as a result of job search and matching difficulties in connection with quits, new entries to the labour market, and job separation because of employers' dissatisfaction with the individuals' workers (12). Ordinarily, this kind of unemployment does not usually pose much threat to individuals' welfare, as it is temporary in nature. However, the situation in Zimbabwe is that frictional unemployment grows into long-term unemployment and thereby resulting into a stable state of unemployment.

Similarly, Abachi (13) studied the trade-off between unemployment and inflation in Nigeria using a trade-off model. His studies revealed that there is no trade-off between inflation and unemployment. Rather, the estimates established a non-linear curve that slopes upwards. Also, his findings showed that causality existed between inflation and unemployment, which implies that any attempt to control inflation results to the aggravation of unemployment and vice-versa.

In another study, Sanda (14) used a sample of 360 firms in Kano and its environs to examine whether or not, in comparison to large firms, small firms are relatively better at creation of employment opportunities. The results were positive in that small firms were found to be relatively better, and the conclusion they derived was that a policy that gives special preference to small firms is justified. Even though unemployment is painful to those who have no source of income, reducing unemployment is not costless. In the short-run, a reduction in unemployment may come at the expense of a higher rate of inflation, especially if the economy is close to full capacity, where resources are almost fully employed (15).

In Zimbabwe, economic development is measured in terms of factors such as unemployment and inflation. These two variables are considered as important economic indicators, with unemployment rate considered as one of the macroeconomic factors that are used to measure the state of the economy. High inflation is coupled with increased price variability and at times can lead to the departures of investors. The reduction of country's international competitiveness may be due to inflation which directly make country's exports

relatively expensive.

This study, therefore, evaluates the Phillips Curve in its applicability in the Zimbabwe context, with the theory stating that in the short-run there is an inverse relationship between inflation and unemployment rate, whilst in the long-run, the concepts of unemployment and inflation are not related.

MATERIALS AND METHOD

This section explores the econometric methodology applied in the study to determine the relationship between inflation and unemployment in Zimbabwe. The study uses secondary yearly data for only four variables, namely, inflation, unemployment, current account balance and gross domestic product. Twenty-eight observations were considered since the period under study covers from 1990 to 2017. The data was collected from International Monetary Fund (IMF) Data Base. In analysing the data Ordinary least squares (OLS) were used in which inflation was regressed against unemployment rate, current account balance, real GDP. The method is useful in developing quantitative relationship between variables, which can be used for prediction. This is the most appropriate technique in view of the test for fitness and simplicity in understanding. To estimate the parameters in the model, we assumed that the assumptions of the OLS hold. This analysis helps us to determine the extent to which the exogenous or policy variables explain the endogenous variable. The test of the explanatory parameters was carried out using the student T-test which determines the strength of the relationship between the independent variables in the model. It ascertains if each estimated parameters is individually significantly different from zero. The co-efficient of determination (R-squared) was computed. R-squared is used to measure the goodness of fit. It is used to reinforce F-statistic. It takes into account, the degree of freedom and tests the significance of the explained variation in the regressend by the regressor. The Durbin-Watson (DW) value was also computed and used to determine the presence or absence of auto-correlation in the data collected.

Based on the theoretical framework, the model used on this study could be represented mathematically as:

$$\text{INFL} = f(\text{UNEMP}, \text{CAB}, \text{GDP}) \dots\dots\dots (1)$$

Where:

INFL = Inflation Rate, UNEMP = Unemployment Rate, CAB = Current Account Balance, GDP = Real Gross Domestic Product. The linear relationship of equation (1) could be stated as:

$$\text{INFL} = a_0 + a_1 \text{UNEMP} + a_2 \text{CAB} + a_3 \text{GDP} + U \dots \dots \dots (2)$$

Where a_1 , a_2 and a_3 are the relevant elasticity, a_0 is the regression constant and U is the error term subject to the usual stochastic consumptions.

DATA ANALYSIS AND INTERPRETATION OF RESULTS

This section focuses on the empirical estimation, presentation and economic interpretation of the regression results carried out using the methodology highlighted in the previous section.

Preliminary Tests

Table:1 Descriptive Statistics

	INFL	UNEMP	GDP	CAB
Mean	11.57143	22.76327	1.628571	-8.607143
Median	1.900000	16.02832	2.500000	-6.250000
Maximum	156.9000	87.80344	11.90000	4.100000
Minimum	-37.40000	-4.63257	-16.50000	-43.60000
Std. Dev	40.95992	21.17633	7.462144	9.255546
Skewness	2.229836	1.448543	-0.882641	-1.992995
Kurtosis	7.931191	4.778605	3.306033	8.384451
Jarque-Bera Probability	51.57286 0.000000	13.48263 0.001181	3.744854 0.153750	52.36051 0.00000
Observations	28	28	28	28

Table 1 shows descriptive statistics of the dependant and explanatory variables used in the study for the period 1990 to 2017. Maximum and minimum statistics rule out the possibility of outliers in the data used as the data were transformed logarithms to reduce its variability and enable direct estimation of the parameters. Classical linear regression requires that the residuals be normally distributed and judging by the probability values of the Jarque-Bera, three variables except for GDP residuals follows a normal distributed therefore, unit root tests can be conducted.

Stationarity Test Results

The stationarity and unit root tests of the data used in this study were conducted using Augmented Dickey-Fuller test and the results are shown below:

Table 2: Unit Root Test

Variable	t-ADF	Critical	Critical	Critical	Conclusion
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	Statistic	1%	5%	10%	
INFL	-4.568668	-3.699871	-2.976263	-2.627420**	1(1)
UNEMP	-4.305603	-3.711457	-2.981038	-2.629906**	1(1)
GDP	-5.894354	-3.711457	-2.981038	-2.629906**	1(1)
CAB	-7.666563	-3.711457	-2.981038	-2.629906**	1(1)

*, ** indicate significance at 1% and 10% respectively

The results from the ADF test became stationary after differencing. The next stage involves testing the existence of the cointegration relationship among the variable using Johansen Cointegration Test. Table 3 below presents the cointegration test results.

Table 3: Cointegration Test Results

Hypothesised No. of CE (s)	Eigen Value	5% Critical Value	Prob.**
None*	0.753482	27.58434	0.0029
At most 1	0.395652	21.13162	0.4436
At most 2	0.246490	14.26460	0.4477
At Most 3*	0.218606	3.841466	0.0113

*Denotes rejection of the hypothesis at the 5% (1%) significance level.

The hypothesis of no cointegration is rejected suggesting that there exists a long-run relationship amongst inflation and its determinants. This is because the statistical values of those tests were greater than their critical values. When the cointegration exists, it means INFL, UNEMP, GDP and CAB share a common trend and long-run equilibrium as suggested. However, the statement of cointegration of 'At most 3', was rejected. There being evidence of cointegration amongst the variables, the following Table 4 exhibits results for estimated Ordinary Least Squares (OLS).

Table 4: Ordinary Least Squares
Dependent Variable: (INFL)

Variable	Coefficient	Std. Error	t-Statistic
Unemp	-9.603003	13.46993	-0.712921
GDP	2.329862	1.138528	2.046381
CAB	-0.230333	0.926617	0.248574
C	58.23383	71.29286	0.816825

R Squared =0.16542

Adjusted R Squared =0.061099

F. Statistic =1.585676

Log Likelihood	=-140,6422
Durbin Watson Stat	= 1.779852

The result shows that unemployment rate in Zimbabwe has negative and significant relationship with the Inflation rate. Also, Current Account Balance (CAB) has a negative relationship with the Inflation rate. However, Gross Domestic Product (GDP) has a positive relationship with the Inflation rate. Now, given that this study is premised on the evaluation of the Phillips Curve in the Zimbabwe Economy context, discussion of the results has been centred on Inflation rate and Unemployment rate. The results on Table 4 shows that a unit increase in unemployment will result in a decrease of inflation by 9.603 units. Therefore, Ordinary Least Squares (OLS) results shows that unemployment and inflation have a permanent (fixed) stable inverse relationship. These results, therefore, strongly supports the Phillips Curve. This, therefore, suggests that the Phillips Curve, will remain the primary framework in Zimbabwe for understanding and forecasting inflation.

CONCLUSION AND POLICY RECOMMENDATIONS

The trade-off relationship between unemployment and inflation poses a dilemma for policy makers, since in order to reduce unemployment, the inflation rate in the economy tends to rise. Therefore, basing on the findings of this study, there is great need for constructive and well-specified policy recommendations that will help to ameliorate the situation of unemployment and inflation in Zimbabwe. In addition to the suggested policy prescriptions by Phillips (5), the following policy recommendations have potential of alleviating the current problems of unemployment and inflation in Zimbabwe.

- (i) Government of Zimbabwe should strive to develop the agricultural sector, which has great potentials to increase the supply of farm products and other basic necessities of life. The increased supply will reduce prices and increase in employment generation. To achieve this, various specific agricultural policy measures should be promoted and pursued vigorously. Thumbs up for the Command Agricultural model which the country is currently undertaking.
- (ii) Massive investments should be carried out in the real sector of the economy, through establishment of job-creating industries. This would help reduce the level of unemployment in the country, increase output, reduce prices of goods and services, and thus, reducing the level of inflation in the economy.
- (iii) The free flow of information between employers and employees should be enhanced, through the reduction in the cost of job or employee search by means of job data banks, thus resulting to increased efficiency in the labour market. Similarly, training and educational programmes should be increased and geared towards innovations and productivity, thereby, reducing the rate of unemployment in the economy.

- (iv) It is, also recommended strongly that special attention be given to policy implementation. In this regard, the government of Zimbabwe should set up a policy implementation body or committee in the office of the president for the purpose of monitoring government policies and ensuring that they are implemented according to prescriptions.
- (v) A well thought model should be designed for the mining sector, especially in the Diamond mining. The model should clearly spell the procedures to be followed, from the extraction to the selling of the mineral, with the government taking a leading role from both the extraction and the selling, rather than leaving private industries to manage the most sought resource. This would enhance in the accountability of the mineral and the ultimate proceeds.

Derek (16), stated that the growing of an economy results in the decrease of inflation as more goods are produced as a result of increased number of labour force. Zimbabwe government should, therefore, work towards growing its economy through adopting a policy mix that embraces macro-economic indicators.

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DEVELOPMENT OF THE LABOR MARKET IN THE REPUBLIC OF MACEDONIA

Mimoza Serafimova, Ph.D

Faculty of tourism and Business logistics, University Goce Delcev-Stip, Campus IV, 2000 Štip, Republic
of Macedonia

mimoza.serafimova@ugd.edu.mk

Abstract

The paper offers a more comprehensive analysis of the condition of the labor market regulation, which is supported by the relevant legislation. Detailed analyzes of the set regulatory employment laws are offered, especially with regard to the areas of employment, working hours and dismissal. This paper will consider and compare aspects that affect the quality of work, such as the availability of maternity leave, paid sick leave and equal treatment of men and women in the workplace. Standard assumptions are used when data is collected. The data on labor market regulation are based on detailed questionnaires on employment regulations, the laws and regulations on employment are analyzed, and secondary data sources are considered.

To make the data comparable in all economies, several assumptions about the worker and business, which support policymakers in designing regulatory labor market reforms, are used.

Keywords: labor market, regulation, employees, Macedonia.

INTRODUCTION

The flexibility of employment regulation as far as employment, is concerned is working hours and dismissal. Aspects affecting the quality of work would be the availability of maternity leave, paid sick leave and equal treatment of men and women in the workplace. Transition countries, including Macedonia, are carefully and rapidly trying to bring legislation that will regulate the labor market closer to the European.

1. LITERATURE REVIEW

The Keynesian economy focuses on the fact that unemployment is the result of an insufficiently effective demand for products and services in the economy. According to (Romer 1990: 64) economic growth led to internal sectoral economic changes. These changes lead to structural unemployment. Technological development changed the way of production by reducing the number of employees. While (Pissarides 1990) and (Postel Vinay, 1998: 1091-1115) state that technological development helped for the reduction of unemployment due to the effect of capitalism. (Zaglar, 2006: 53) analyzed the ratio between economic growth and unemployment in the United Kingdom in the period 1982-1999, and the results showed a strong and negative correlation between economic growth and unemployment. According to him, fast-moving economies will face structural unemployment for a short period. Unemployment can be

minimized by effective planning and human capital improvement. Many economists analyze this ratio between economic growth and unemployment to make estimates from the Okun coefficient. In particular, Okun (1962) at the time of the Kenyanism referred to a stable ratio between the GDP growth and the change in the percentage of employment. The others on the list were Smith (1975), Gordon (1984), Knoester (1986), Kaufman (1988), Prachowny (1993), Weber (1995), Musa (1997a, 1999), Attfield и Silverstone (1998), Lee (2000), Harris dhe Silverstone (2001), Sogner и Stiassny (2002), and Silvapulle et al (2004).

2. GLOBAL PERSPECTIVE

In the domain of the labor market, the transition was prompted by two driving forces: ownership restructure and sectoral reallocation (Blanchard, 1997). As a result, the transition countries, in which the Republic of Macedonia belongs, represent a heterogeneous group and differ according to the experiences, as well as the degree of success in the implementation of the transitional employment reforms (Svejnar, 2002: 3-28). The countries of Central Europe (CEE), the Baltic countries and Slovenia were most successful in overcoming the initial recession, achieving dynamics of their GDP and employment, which can stylizedly be represented in the form of the Latin letter U. For the success of the transition process in these countries, recently accompanied by Romania and Bulgaria, speaks of the fact that they are today full-fledged EU members. Contrary to this group of countries, the countries that originate from the former Soviet Union, and today constitute the Commonwealth of Independent States (CIS) and the countries of Southeast Europe (SEE), still face high and persistent unemployment as a consequence of their low institutional capacity which generates modest development opportunities (Boeri, 2000: 274). Among the above groups of countries, this paper will focus on the functioning of the labor markets in the SEE countries, of which Macedonia is an integral part. Unemployment at the start of the transition has reached high rates in almost all transition countries, and especially in SEE and as such is the only historical phenomenon that requires the need to be thoroughly explored (Tichit, 2006:351). This unemployment is still termed 'transition unemployment' because it is a result of the shock of systemic reforms and, as such, differs in many respects from other types of unemployment (Mickiewicz and Bell, 2000). General characteristics of transitional unemployment are: pronounced segmentation of the labor market, long duration of unemployment and low likelihood of exit from the status of unemployment (Cazes and Nesporova, 2003). Almost all transition countries, at the beginning of the transition process, have introduced passive labor market policies that, according to their 'broad-based', are similar to those encountered in the developed countries of the OECD (Riboud et al., 2002). However, this kind of 'natural experiment' has proved unsustainable and has forced governments to shorten the rights enjoyed by the unemployed quickly (Boeri, 2000; Vodopivec et al., 2003).

3. NATIONAL PERSPECTIVE

According to the presented challenges faced by the labor market, selected by the National Employment Strategy of the Republic of Macedonia 2016-2020, they would indicate:

- Low employment rate, high gender gap in employment and low employment of young people;
- Highly vulnerable employment;
- Unfavorable employment structure, dominated by low levels of occupation. High unemployment rate

that especially affects young people;

- High long-term unemployment. Relatively low activity rate resulting from low activity of women and low-education;
- Inactive women are disproportionately distributed among young women, women in rural areas and unskilled, with one of the most important reasons for female inactivity being household responsibilities;
- High youth unemployment and a long transition period from education to the labor market. Possible growth of the unemployment of highly educated persons (large growth in the supply); possibility to increase the phenomenon of over-education (Selected part of the National Strategy for Employment of the Republic of Macedonia 2016-2020: 27).

4. METODOLOGY AND RESEARCH FRAME

The study includes analysis of data from the survey conducted in 2016. In order to make data comparable in all economies, several assumptions are used for employees and businesses:

- Employees are employed in trade, aged 19, with one year work experience, full-time and not members of the trade union.
- Businesses are limited liability companies (or equivalent in the economy), engage in trade activity in the largest business city of the economy. For 11 economies data are collected for the second largest business city, having 60 employees. They adhere to any law and regulation, but do not give workers more benefits than those provided by law, regulation or (if applicable) collective agreements.
- Analyze the relationship of Employment Laws and Regulations, as well as secondary sources that are considered to ensure accuracy.

Examined aspects of employment, working hours, redundancy rules, redundancy costs and quality of work.

Employment laws need to protect workers from arbitrary or unfair treatment and to ensure effective bargaining between employers and workers. Many economies that have changed the regulation of the labor market for the past 5 years do so in a way that has increased its flexibility. The changes that Macedonia made to regulate the labor market are shown in Table 1.

Table 1: Changes in market regulation in Macedonia

Year	Reform
2016	1) Macedonia introduced amendments to its Labor Relations Act relating to social contributions, employment contracts, independent contractors, annual leave, overtime work, health inspections and labor disputes.

Source: Doing Business database

The data for Macedonia is based on a detailed overview of the labor market regulations, prepared by lawyers and public officials.

4.1 Employment

Work engagement data covers five areas:

- prohibiting fixed-term contracts for permanent tasks;
- maximum cumulative duration of fixed-term contracts;
- the minimum wage in the commercial activity, 19 years of age, with one year work experience; and
- the relationship of the Employment Laws and Regulations, and the secondary sources considered to ensure accuracy.
- minimum wage of the average added value per worker (ratio of GDP per capita to the working-age population as a percentage of the total population).

Table 2: Data for working engagement

Hiring	Data
Fixed-term contracts prohibited for permanent tasks?	No
Maximum length of a single fixed-term contract (months)	60 months
Maximum length of fixed-term contracts, including	60.0
Minimum wage applicable to the worker assumed in the	287.5
Ratio of minimum wage to value added per worker	0.5

Source: Doing Business database

4.2 Working hours

Working hours include nine areas:

- the maximum number of working days per week;
- night work premium (as a percentage of hourly wage);
- a weekly working holiday allowance (as a percentage of an hourly wage);
- overtime work (as a percentage of hourly wage);
- whether there are restrictions on night work;
- whether single and unmarried women can work the same night time as men;
- whether there are restrictions on weekly rest;
- whether there are restrictions on overtime work; and
- average paid annual leave for workers with 1, 5 and 10 years of work experience;

Table 3: Data on working hours

Working Hours	Data
Maximum number of working days per week	6.0
Premium for night work (% of hourly pay)	35.0
Premium for work on weekly rest day (% of hourly pay)	50.0
Premium for overtime work (% of hourly pay)	35.0
Restrictions on night work?	Yes
Whether nonpregnant and nonnursing women can work the same night hours as men	Yes
Restrictions on weekly holiday?	No
Restrictions on overtime work?	No
Paid annual leave for a worker with 1 year of tenure (working	20.0
Paid annual leave for a worker with 5 years of tenure (working	20.0

Paid annual leave for a worker with 10 years of tenure (working	20.0
Paid annual leave (average for workers with 1, 5 and 10 years of tenure, in working days)	20.0

Source: Doing Business database

4.3 Redundancy rules

The data on redundancy cover nine areas:

- the length of the maximum probation period (in months) for permanent employees;
- whether the excess is permitted as a basis for termination of workers;
- whether the employer should notify a third party (such as the government agency) of terminating a redundant worker;
- whether the employer should notify a third party about the termination of a group of nine workers;
- whether the employer needs a third party approval to terminate a redundant worker;
- whether the employer needs a third party approval to terminate a group of nine redundant workers;
- whether the law requires the employer to redistribute or retrain the worker before becoming overburdened;
- whether the priority rules for redundancy apply; and
- Are the priority employment rules applied?

Table 4: Data on redundancy

Redundancy rules	Data
Maximum length of probationary period (months)	6.0
Dismissal due to redundancy allowed by law?	Yes
Third-party notification if one worker is dismissed?	No
Third-party approval if one worker is dismissed?	No
Third-party notification if nine workers are dismissed?	No
Third-party approval if nine workers are dismissed?	No
Retraining or reassignment obligation before redundancy?	No
Priority rules for redundancies?	No
Priority rules for reemployment?	No

Source: Doing Business database

4.4 Redundancy costs

The cost of redundancy measures the cost of the advance notice and the severance pay payments due when the excess employee is terminated, expressed in weeks and salary. The average value of the claims for notice and payment of severance pay applicable to a worker with 1 year, a worker with 5 years and a worker with 10 years of service.

Table 5: Data on the cost of redundancy

Redundancy cost indicator (in salary weeks)	Data
Notice period for redundancy dismissal for a worker with 1 year of tenure	4.3
Notice period for redundancy dismissal for a worker with 5 years of tenure	4.3
Notice period for redundancy dismissal for a worker with 10 years of tenure	4.3
Notice period for redundancy dismissal (average for workers with 1, 5 and 10 years of tenure)	4.3
Severance pay for redundancy dismissal for a worker with 1 year of tenure	4.3
Severance pay for redundancy dismissal for a worker with 5 years of tenure	8.7
Severance pay for redundancy dismissal for a worker with 10 years of tenure	13.0
Severance pay for redundancy dismissal (average for workers with 1, 5 and 10 years of tenure)	8.7

Source: Doing Business database

4.5 Quality of work

Doing Business in its research has introduced new data on job quality in 2015 and covers eight quality issues:

- whether the law provides for equal reward for work of equal value;
- whether the law provides for non-discrimination based on gender in employment;
- whether the law provides paid or unpaid maternity leave;
- the minimum length of paid maternity leave (in calendar days);
- whether the employees receive maternity wages 100%;
- whether the employee is eligible for protection against unemployment after one year of work experience; and
- the minimum duration of the contribution period (in months) that is required for protection against unemployment.

Table 6: Performance data

Job Quality	Data
Equal remuneration for work of equal value?	No
Gender nondiscrimination in hiring?	Yes
Paid or unpaid maternity leave mandated by law?	Yes
Minimum length of maternity leave (calendar days)?	270 (for one child)
Receive 100% of wages on maternity leave?	Yes
Five fully paid days of sick leave a year?	Yes
Unemployment protection after one year of employment?	Yes
Minimum contribution period for unemployment protection (months)?	12.0

Source: Doing Business database

5. ANALYSIS AND FINDINGS

Based on the abovementioned, it is clear that the challenge facing Macedonia is to reduce the unemployment rate and encourage employment through sound legal legislation. Some of the recommendations that can ease the process itself are that despite good progress in labor market conditions, the country still faces a high unemployment rate and low employment and activity rates.

The overall employment rate is low as a result of the low employment of women and young people. Both the quality of jobs and employment may be better. In the structure of employment there is dominance of elementary occupations that are low-productive, pay low wages, and do not exploit human potential, and one fifth of Macedonian workers work at the level of elementary occupations. In the structure of employment and free (unfilled) jobs, the most occupied occupations are secondary occupations, which require workers with secondary (vocational) education. The highest growth rates of the number of employed persons (newly created jobs) have among the highly educated persons. However, the high growth of the offer of highly educated personnel (which slightly exceeds the demand growth) caused a slight increase in the unemployment of highly educated persons and an increase in the phenomenon of over-education. The transition from education to the labor market of young people is difficult, and on average it takes about 6 years. About 80% of unemployment is long-term (even among young people), leaving unemployed people losing their knowledge and skills, their productivity decreases, and thus the chances of finding work. In this way, the investments made in their previous education are falling, and new, additional investments are needed in order to preserve and advance their knowledge. The activity of the able-bodied population is low as a result of the low activity of women and low-educated persons. Inactive women are disproportionately distributed among young women, women in rural areas and unskilled, with one of the most important reasons for female inactivity being the household responsibilities.

6. CONCLUSION

An efficient labor market that works well is an important part of the overall business environment. According to the Labor Market Performance Indicator (GIC), the labor market efficiency was assessed at 4.2, making Macedonia ranked 71th. Although there is some improvement, work efficiency needs to continue to improve. The ILO survey (2013) shows that firms generally consider that legislation on the labor market is relatively good, but certain aspects need to be significantly improved. As main areas, the ILO (2016) Enabling Environment for Sustainable Enterprises, where necessary improvements to the regulations state: termination of employment and dismissal of workers, days of annual leave, types of work contracts and employment. , for half of employers, the regulation on safety and protection at work presents a great financial burden. It is quite clear that the processes for advancing the legislation and its adjustment to the European legislation are positives ivni because improve standards and working conditions. But on the other hand, they represent a financial burden and time consuming large companies to respect the law.

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INDEX CONSTRUCTION – MEASURING INTERNAL AND EXTERNAL CORPORATE SOCIAL RESPONSIBILITY

Habaragoda B.S^{1,2}

¹ School of Management, Huazhong University of Science and Technology, Wuhan, PR China

² Department of Industrial Management, Wayamba University of Sri Lanka, Sri Lanka

shabaragoda@yahoo.com

Abstract

Corporate social responsibility (CSR) is a popular terminology that is used to represent the interconnection between the business and society. Though CSR has been gaining an increased scholarly attention, the measurement of it is yet challenging. Existing literature provides several methods for measuring the construct, however almost all of them have their own limitations. Most of the existing measurements are reflective scales, however it is more realistic to assume that indicators used to measure CSR causes CSR than vice versa. The purpose of this study is to construct an appropriate, valid and reliable measure of CSR, particularly measure of internal and external CSR in line with the distinction between internal and external stakeholders who are always the recipients of CSR. Two indexes were constructed through a systematic index construction process. The items for the indexes were identified using publically available reports of a sample of listed companies drawn from Colombo Stock Exchange, Sri Lanka. The results of the analysis provided two indexes for identifying and categorizing firms' social activities separately on internal and external dimensions, especially pertinent to developing contextual conditions.

Keywords: Corporate social responsibility (CSR), internal CSR, external CSR, Sri Lanka

Introduction

Corporate social responsibility (CSR) is a popular terminology which has been extensively used to understand and represent the interconnection between the business and society. Businesses cannot either success or survive without the continued support of the society within which it is embedded. They always have responsibilities towards the society such that they should work according to the betterment of the society and its various stakeholders. Due to this interwoven relationship, it has been gained increasing scholarly attention to investigate the relationship between social behaviour of firms and their financial performance. Although it has passed few decades now, still it is remained debatable whether the CSR activities actually payoff or not. This inconsistency mainly stems from the problematic nature of defining and measuring the concept of CSR (Turker, 2009b). CSR is a multi-dimensional concept which encompasses a wide range of activities spanning over different dimensions like social, environmental and economic. Although numerous CSR measurement techniques are available in the literature, most of them are reflective scales whereas it is more rational to assume that the indicators used to measure CSR causes

CSR rather than being caused by CSR (Diamantopoulos & Winklhofer, 2001). Thus, the purpose of the present study is to fill this research void by introducing a more appropriate measurement technique, an index with formative indicators of CSR.

This study makes two key contributions to the existing body of knowledge. First, this study provides an approach of index construction with formative indicators to measure CSR deviating from frequently used reflective scales. It is a well-known fact that, measurement models based on formative indicators are much more relevant for studies whose constructs are based on organizational or social phenomenon like CSR (Bagozzi, 1994). A firm's performances in social and environmental domains are more likely to determine its level of social engagement, rather than vice versa. For an instance, increases in social performance increases the level of CSR even the environmental performance remains unchanged. Conversely, increase in firm's CSR level does not necessarily accompanied by an increase in social or environmental performances. It is more accurate and rational to assume that the indicators used to measure CSR causes CSR, hence an index with formative indicators is in comparatively capable of measuring CSR more precisely. Second, the indexes were constructed and validated using a data set obtained from a sample of listed companies in a developing country, Sri Lanka. Most of the prevailing CSR related research has been conducted in developed countries. The understanding and practices of CSR is significantly different between developed and developing countries (Matten & Moon, 2008). This study makes an important contribution to the CSR literature by conducting it in a context of a developing country which has received rather less scholarly attention before.

Literature Review

Extant literature reports a wide array of definitions for CSR due to some inheritance characteristics of the concept. First, CSR is a 'contested' term with certain open rules and applications (Moon, Crane, & Matten, 2005). Second, it is a multi-dimensional construct which typically includes organizational activities ranging over few different dimensions such as social, environment and economic. Third, the relationship between business and society has been conceptualized using number of terminologies, sometimes overlapping or contradictory and among all, the term of CSR can be placed at the top of the hierarchy (Matten & Crane, 2005). Fourth, obviously it is a dynamic phenomenon, which has being constantly evolving (Carroll, 1999). Fifth, it is clearly a contextually specific phenomenon such that context and meaning of CSR are interrelated (Halme & Laurila, 2009; Matten & Moon, 2008). Although different definitions exist for CSR, it can be observed that most of these definitions were built around two key terms; volunteerism and stakeholder orientation. Volunteerism is essential in defining CSR such that any responsible activity should be beyond mere compliance to legal obligations or ethical considerations. Although, there is no doubt that corporations should be responsible, earlier definitions were short of answering to the question 'to whom corporations should be responsible'. Subsequent definitions incorporated the concept of 'stakeholder' since the essence of CSR is all about how to engage with stakeholders. There is a natural fit between the concept of CSR and organizational stakeholders (Carroll, 1991).

The present study uses a general definition for CSR as ‘firms’ voluntary activities or responses to stakeholder demands by going beyond mere economic interests and legal obligations to achieve social welfare’ (Madsen & Rodgers, 2015; Turker, 2009b; Van Marrewijk, 2003; Vogel, 2005). CSR activities range over a wide spectrum including local community development programs, protection of human rights, adopting advanced human resource management practices, workplace safety, protection of environment, corporate governance, business ethics, philanthropic activities and etc (Barnett, 2007; Waddock & Graves, 1997; Welford, 2004). These variety of CSR activities were grouped into few dimensions such as employee, community, environment, product, diversity and human rights. Most of the existing studies have operationalized the construct as a single, monolithic measure by aggregating these different CSR dimensions (Inoue & Lee, 2011; Peloza, 2009; Reverte, Gómez-Melero, & Cegarra-Navarro, 2016). Some studies have employed disaggregated CSR measures acknowledging the complexity and multidimensionality of the construct (Jayachandran, Kalaigannan, & Eilert, 2013; Waddock & Graves, 1997). Opposing to an aggregated form claims that CSR typically encompasses a wide range of corporate policies and actions in different domains such as social, environment and economic and on different dimensions like employee, community, product and environment, thus aggregating them into a single, monolithic construct may become meaningless and may hinder the actual level of firm’s social engagement (Brammer & Millington, 2004, 2008; Entine, 2003). Moreover, firms may engage in CSR activities in fundamentally different domains for different purposes and more importantly these various types of CSR activities may impact on the firm performance differently (Brammer & Millington, 2008; Farooq, Rupp, & Farooq, 2017; Jayachandran et al., 2013). Therefore, responsible activities in different domains should be conceptualized independently. Present study acknowledges this multidimensionality nature of CSR by theoretically and empirically making a distinction between internal and external CSR. As mentioned earlier, in general CSR consists of those organizational activities that are used to address firms’ responsibilities towards their stakeholders. Stakeholders are defined as “any individuals or groups who can affect or are affected by the organizational activities” (Freeman, 1984). Stakeholders have been classified in various ways and frequently used such classifications are distinguishing them as primary vs secondary stakeholders and internal vs external stakeholders (Clarkson, 1995; Verdeyen, Put, & van Buggenhout, 2004). Internal stakeholders are the entities who are part of the business such as owners, employees, managers, investors and board of directors (Verdeyen et al., 2004). Internal stakeholders have the power to directly influence the company policies and decision making and they are directly influenced by the activities, decisions and performances of the company. Due to their crucial role in the business success, firms are usually extending a prime responsibility towards them (Verdeyen et al., 2004). External stakeholders are the entities who are not part of the business such as local community, suppliers, customers, governments and competitors, however they can be affected by the company activities (Verdeyen et al., 2004). External stakeholders are too important to an organization, however to a lesser degree compared with internal stakeholders since they also can affect (may be indirectly) the performance and the survival of the organization. Adjacent to this classification, significant number of studies have disaggregated CSR

activities into internal and external dimensions acknowledging the commonplace observation that the recipients of CSR activities are always either internal or external stakeholders of the firms (Castka, Balzarova, Bamber, & Sharp, 2004; Werther & Chandler, 2010). Internal CSR consists of organizational policies and practices which are aimed at addressing the development and welfare needs of the internal stakeholders (Farooq et al., 2017; Turker, 2009a). Internal CSR is frequently conceptualized considering the practices primarily focused on employees, thus sometimes it is referred as employee-related CSR (Castka et al., 2004; Maignan & Ferrell, 2004). The literature reports a wide range of organizational practices which have been conceptualized as internal CSR (Farooq et al., 2017; Vives, 2006). This may include responsible business practices aiming at employee training and development, their health and safety, working environment, employee welfare, rewards, diversity, human rights, equal opportunities and advanced human capital management practices (Brammer, Millington, & Rayton, 2007a; Castka et al., 2004; CEC, 2001; Lindgreen, Swaen, & Johnston, 2009; Longo, Mura, & Bonoli, 2005; Maignan & Ferrell, 2004; Spiller, 2000; Turker, 2009a; Vives, 2006; Welford, 2004). Many of these organizational practices which have been initially identified as internal CSR, have already been extensively investigated under variety of other different labels, such as equal opportunity, diversity, advanced labour management practices, work family support and organizational justice (Bradley-Geist & King, 2013; Butts, Casper, & Yang, 2013; Posthuma, Campion, Masimova, & Campion, 2013; Rupp, Shao, Thornton, & Skarlicki, 2013). For this study, a general definition for internal CSR was adopted as “firms’ voluntary attempts to address the well-being and career and personal development of their internal stakeholders” (CEC, 2001; Farooq et al., 2017). Internal CSR practices aim at the internal audience of the firm, thus they take place within the firm. External CSR includes organizational activities which reflects firms’ benevolence towards the society at large. The recipients or the beneficiaries of the external CSR consist of those stakeholders who are external to the organizational boundaries (Farooq et al., 2017; Margolis & Walsh, 2003). As literature reports, external CSR may include a wide variety of social initiatives aiming at external stakeholders such as charitable donations, volunteer initiatives, contributions to education and health, disaster relief activities, investments in community development, environment protection programs, environment friendly investments, pollution prevention activities and sustainable initiatives (Farooq, Payaud, Merunka, & Valette-Florence, 2014; Farooq et al., 2017; Kim, Ha, & Fong, 2014; Madsen & Rodgers, 2015). For the present study, a general definition for external CSR was adopted as “firms’ voluntary attempts to address the well-being of their external stakeholders” (Brammer et al., 2007a; El Akremi, Gond, Swaen, De Roeck, & Igalens, 2018). External CSR practices aim at the external audience of the firm, thus they usually take place outside the firm.

As its important role in both business and society, significant attempts have been made to measure firms’ social engagements both by academia and business communities (Turker, 2009b). Although there are many measurement techniques available, there is no single best way to measure the construct. Existing measurement techniques can be broadly classified into forced-choice survey instruments, reputation indices and scales, single and multiple issue indicators, content analysis of corporate documents, behavioural and perceptual measures, case study and scales measuring CSR at different levels such as

individual and organizational. Reputational indices and scales like Kinder, Lydenberg and Domini (KLD) database are among the most widely used methods for assessing corporate social activities. Use of single and multiple issue indicators is the second commonly used method to evaluate firms' responsible behaviour. Pollution control performance and corporate crime are two such single issue indicators. This method is short of capturing the multidimensional aspects of CSR. As a way of addressing to this limitation, it has been started to use a combination of several indicators together. However, still use of multiple issue indicators is unable to grasp the full essence of firms' responsible behaviour. Another frequently used method for measuring CSR is content analysis of corporate documents. An added advantage of this method is that it may be possible to derive new measures for CSR through content analysis ([Abbott & Monsen, 1979](#)). Further, this method enables scholars to rate companies objectively, since once the social attributes are selected, the process of rating is standardized. One of the major limitation of this method is that the actual corporate performance may not reflect as it is from the information disclosed in corporate documents. The next method is to use scales that measure the CSR perception of individuals such as employees or managers. Number of scholars have developed scales and some are capable of grasping the multidimensional nature of CSR ([Aupperle, 1991](#)). In summary, a review of the prevailing literature shows that there are several measurement techniques available to measure CSR. Although these methods have made important contributions to the CSR literature, almost all of them have their limitations. Moreover, none of these existing methods assess the social responsibility behaviour of firms as the present study does.

Research Methodology

Sample and Data Collection

To identify the items for the proposed two indexes and to check their reliability and validity, a sample of firms was constructed that engage in CSR and disclose their social engagement to the public, for consecutively 5 years from 2011 to 2015. Sample companies are drawn from the Colombo Stock Exchange (CSE), Sri Lanka. Currently 295 companies are listed in CSE, representing 20 different business sectors as at 30th September 2017, with a market capitalization of 2,919 billion Sri Lankan Rupees. The initial sample consisted of 150 companies that reported some kind of CSR engagement for consecutively during the specified period. The sample is reduced to 120 companies based on the availability of CSR data that may enable us to distinguish and measure internal and external CSR independently. Annual and/or sustainability reports of the sample companies from 2011 to 2015 were referred to identify the items for the two indexes.

Index Construction

The first step in constructing the two indexes for measuring internal and external CSR was the conceptualization of the indexes according to the proposed definitions of internal and external CSR respectively. Conceptually, internal and external were demarcated as those social initiatives targeting at internal and external stakeholders respectively. Hence, the proposed indexes should be able to independently identify and categorize firms' CSR activities as internal and external CSR. As shown in

Figure 1, measurement technique grounded on formative indicators is the most appropriate measurement model for CSR than a reflective scale since it is more rational to believe that the indicators used to measure CSR causes CSR rather than being caused by CSR ([Diamantopoulos & Winklhofer, 2001](#)). Measurement models based on formative indicators are mostly relevant for studies whose constructs are based on organizational or social phenomenon such as CSR ([Bagozzi, 1994](#)). Firm's performances in social and environmental domains determine its level of CSR, rather than vice versa. For an instance, increases in social performance increases the level of CSR even the environmental performance remains unchanged. Conversely, increase in CSR level does not necessarily accompanied by an increase in social or environmental performances. Therefore, the construct of CSR is more appropriate to perceived as an explanatory combination of indicators which involves constructing an index.

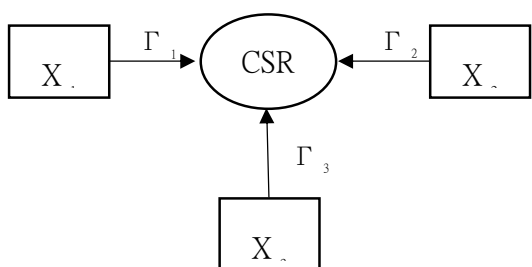


Figure 1: Formative measurement model

Effective index construction rely on four key aspects starting with content and indicator specification. In indexes, formative indicators ultimately determine the latent variable, hence specifying its scope or in other words specifying the domain content that the index supposed to capture, is critically important. Content and indicator specification is inextricable such that identification of the casual indicators extremely depends on extensiveness of the content ([Nunnally & Bernstein, 1994](#)). The two indexes wished to create are supposed to measure internal and external CSR for which the domain contents need to be specified. First, the literature was extensively studied to identify the available definitions for internal and external CSR ([Aguinis, 2011](#)). Then, a working definition was established to help classifying two types of CSR actions. Investments made in employees' development and wellbeing plays a crucial role in internal CSR, thus employee oriented CSR actions were selected as the measure for internal CSR ([Cornelius, Todres, Janjuha-Jivraj, Woods, & Wallace, 2008](#); [Fuentes-García, Núñez-Tabales, & Veroz-Herradón, 2008](#); [Turker, 2009b](#)). Firms' philanthropic engagements are highly visible, more voluntary and address the social issues of a wider range of external stakeholders, thus philanthropic activities were selected as the measure for external CSR ([Brammer & Millington, 2008](#); [Farooq et al., 2017](#); [Godfrey, 2005](#); [Porter & Kramer, 2002](#)). Next, the annual or sustainability reports of the sample listed companies were extensively studies to identify items used as indicators for the indexes which have the potential for capturing internal and external CSR according to the working decision rule. A set of items as indicators were selected in a way that they are capable of covering the scope of internal and external CSR as specified in domain content. The indicators of internal CSR include the activities such as employee training and development, health and safety, safe working conditions, rewards and recognition and welfare facilities.

The indicators of external CSR include the activities such as donations to education and health, investments in community developments, sponsorship, disaster relief activities and support for cultural and religious events. Comprehensive review of the initial round resulted 11 and 14 items for internal and external CSR indexes respectively. The items with missing data for majority of the sample companies were too eliminated in the initial round. In the next round, the multicollinearity was assessed among the identified items of the two indexes using VIF statistic (variance inflation factor) since high indicator collinearity may result serious validity problems. Due to high VIF values which were above the common cut off value of 10, one and two items were dropped from internal and external CSR indexes respectively while leaving ten and twelve items for the indexes (Kleinbaum, Kupper, & Muller, 1988). The final versions of the two indexes for internal and external CSR are shown in Table 1 and 2 respectively.

Table 1: Internal CSR Index

No	Activity
I1	No of health and safety programs
I2	No of employee training and development workshops/activities/seminars
I3	No of sport events and competitions
I4	No of entertainment functions and company outings
I5	No of employee reward and recognition programs
I6	No of scholarship programs for employees' children
I7	No of welfare facility programs (meal/ transport/ medical/ insurance)
I8	No of concerns for equal opportunities
I9	No of concerns for employee participation in decision making
I10	No of work environment upgradations

Table 2: External CSR Index

No	Activity
E1	No of contributions to religious and cultural events
E2	No of disaster relief activities
E3	No of new house development programs for needy people
E4	No of sponsorships to tournaments and competitions
E5	No of infrastructure development programs (roads, bridges, supply of clean water, providing sanitary facilities)
E6	No of sponsorships to entertainment events, exhibitions, musical shows
E7	No of donations to government hospitals (beds, equipment, buildings)
E8	No of donations to schools and universities (buildings, books, sports goods, uniforms, etc.
E9	No of scholarship programs to school children and university students
E10	No of educational seminars to students and teachers
E11	No of programs to provide English language and computer skills education for children in rural areas
E12	No of youth development programs for skill development in order to enhance the

employability of the youth

Pilot Testing

A pilot test was conducted to assess the reliability and validity of the two indexes. Review of existing literature reveals that most researchers tend to assume that the indicators used to measure a certain construct are reflective or effect indicators of the underlying construct (Diamantopoulos & Winklhofer, 2001). Hence, most of the available measurement models are predominantly based on reflective indicators which involves developing scales (Bearden, Richard, & Mobley, 1993). However, there are instances that the measurement models based on reflective indicators were largely questioned for their appropriateness in situations where the indicators should be treated as cause indicators. Reflective scales are exclusively available in the literature, so that the guidelines for scale developments and procedures for assessing their quality are also frequently available. Due to several unique properties of both types of the indicators they are substantially differ from each other, such that formative measures require alternative assessment techniques to check their reliability and validity, deviating from conventional assessments such as factor analysis or internal consistency assessment, appropriate for scales which are composed with reflective indicators (Diamantopoulos & Winklhofer, 2001).

Pilot testing was conducted using a dataset drawn from a sample of companies listed in Colombo Stock Exchange, Sri Lanka (CSE, 2016). Ten companies were selected randomly, however the companies were drawn from the same industry acknowledging the fact of substantial differences of firms' CSR behavior across industries (Amato & Amato, 2007). Assessing reliability in terms of internal consistency using Cronbach Alpha makes no or little sense when measurement models are based on formative indicators (Bagozzi, 1994). Therefore, to check the reliability of the two indexes, the sample of ten companies were divided into two sub samples one representing the ten companies with even number of years and other representing the same set of companies with odd number of years. The first sub sample consists of the ten companies for 2010, 2012 and 2014 years and the second sub sample includes the same set of companies for 2011, 2013 and 2015 years. For each sub sample, the internal and external CSR were measured separately using the two indexes. For an instance, one company was selected and then counted the number of internal CSR activities using the index for internal CSR, say for year 2010 and added them together to measure the internal CSR for that company in 2010. The same procedure was followed to measure the internal CSR of that company in 2012 and 2014. Internal CSR of the rest of the companies in even years were measured using the same procedure. Finally the internal CSR values of those ten companies were summed up together and computed the average. The same criteria was applied to measure external CSR for even years, internal CSR for odd years and external CSR for odd years. The two groups – internal CSR for even years and internal CSR for odd years – were compared using a standard T-Test and no statistical difference was observed between the two groups. The same procedure for the other two groups – external CSR for even years and external CSR for odd years – resulted no statistical difference between them, confirming the reliability of the two indexes.

The same set of ten companies were used to assess the criterion validity of the indexes. Criterion validity of a construct with formative indicators can be assessed by examining how well the construct is correlated with another measure (known and accepted) of the same construct ([Diamantopoulos & Winklhofer, 2001](#)). Investments in employee training and development and philanthropic donations were selected as the alternative measures of internal and external CSR respectively ([Amato & Amato, 2007](#); [Brammer et al., 2007a](#); [Lev, Petrovits, & Radhakrishnan, 2010](#)). These two measures have being extensively used as proxies for measuring CSR and undoubtedly they aim at internal and external stakeholders respectively. First, the internal and external CSR were measured for the selected ten companies using the indexes and again using the alternative measurements. We, then performed a correlation analysis between internal and external CSR resulted from indexes and alternative measurements. Correlation analysis indicated a positive and significant (0.826, $p < 0.001$) correlation between the alternative measure and index for internal CSR and no significant correlation with index for external CSR. The correlation between the alternative measure and index for external CSR is also positive and significant (0.6136, $p < 0.001$) and no significant correlation with index for internal CSR. Reasonably high correlation values indicate that the two indexes measure what it is supposed to measure, thus confirming the validity of them. The results of the Pearson correlation analysis between the two indexes and objective measurements are shown in Table 03.

Table 03: Correlation analysis for validity of the indexes

Index	Objective Measurement	
	Cost of training & development	Philanthropic donations
Internal CSR	0.826**	
External CSR		0.614**

Limitations of the Study

The items for the two indexes were identified from a sample of listed companies drawn from Colombo Stock Exchange, Sri Lanka. Sri Lanka is South Asian, developing country. Existing literature clearly reports that the meaning, understanding and practices of CSR are significantly different from developed countries to developing countries since CSR is contextually driven phenomenon such that context and content of CSR are interrelated ([Halme & Laurila, 2009](#); [Matten & Moon, 2008](#)). Hence, a certain activity deems to be a social initiative in one country may not be perceived as so in a different country. This limits the usability of the indexes especially in a different contextual environment since some of the items in the indexes may not be applicable.

The indexes were constructed in such a way that it helps categorizing and counting the number of internal and external CSR activities, a firm may conduct during a given period of time. One can argue that a firm may engage in a large number of social activities neither of them are substantial investments, however just to be perceived as a responsible firm in customers' eyes. There might be another firm that may

engage in few but genuine social activities with substantial investments. However, the present indexes are not capable of identifying the symbolic commitments of firms' engagements in social activities. Hence, an additional analysis with a different measurement, may be required to check the robustness of the results obtained from measuring CSR using the indexes.

Conclusion

Due to its complexity and multidimensionality nature, constructing a comprehensive measure for CSR is always a challenge. In the present study, a new measure of CSR was obtained based on company disclosure based data through annual reports. First, a demarcation was made between internal and external CSR adjacent to the distinction between internal and external stakeholders in stakeholder theory. Working decision rule was established such that the social activities aim at internal stakeholders as internal CSR and those activities aim at external stakeholders as external stakeholders. Sample of listed companies were drawn from Colombo Stock Exchange, Sri Lanka. The data for the study is secondary in nature, obtained from company annual reports. Two indexes were constructed separately for internal and external CSR. The items for the indexes were chosen through a comprehensive review of existing literature and the corporate documents of the sample companies.

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CONSIDER THE COST OF POOR QUALITY IN A TWO LEVEL SUPPLY CHAIN

Dr. Jia-Chi Tsou

Department of Business Administration,
China University of Technology,

No. 530, Sec. 3, Jung Shan Rd., Hu Kou Township, Hsinchu County, Taiwan 303.

Tel: (+886-3) 437-8362, Fax: (+886-3) 437-8362

E-mail: jtsou.tw@yahoo.com.tw

Abstract:

The supply chain realizes the concept of global logistics, and quality is one of the major issues in supply chain management. This paper proposes a lot sizing and quality improvement model to evaluate the costs between buyer and supplier in a two level supply chain system. A numerical example is provided to support the model. We find that there is an optimal value of quality investment, which minimizes the supplier's cost. The buyer's cost gradually increases with the cost of quality improvement on the supplier's side. Based on this research, the management can evaluate the effect of quality investment in a two level supply chain system to balance the profit between the buyer and the supplier.

Keywords: Two level supply chain, imperfect quality, Lot-sizing

1. Introduction

Supply chain management realizes the concept of global logistics. Supply chain management is one of the hottest topics in today's management research and quality is one of the major issues in supply chain management. Poor quality products decrease customer satisfaction, reduce efficiency of the chain and increase the cost of business operations. Thus, a model to consider the effect of quality investment in a supply chain system is crucial.

The research of the integrated supply chain system is believed to start from Crowther [1]. He developed a method to lower the operating cost from the perspective of the seller or the buyer. Goyal [2] considered an inventory problem where a single customer procures products from a single supplier. Monahan [3] analyzed how a supplier can structure the terms of an optimal quantity discount schedule. Lee and Rosenblatt [4] analyzed the joint problem of ordering and offering a price discount by a supplier. In this paper, the buyer can alter his order schedule and size so that the supplier can benefit from lower set up, ordering, and inventory holding costs. Banerjee [5] developed a "joint economic lot size model" for a special case where a vendor produces to order for a purchaser on a lot-for-lot basis. Goyal [6] proposed a more general "joint economic lot size model" that provided a lower joint total relevant cost. Goyal and Gupta [7] reviewed the literature dealing with buyer-vender coordination inventory model and presented a

scheme to classify these models. Hill [8] developed the optimal production and shipment policy for the single vendor/single buyer integrated production/inventory problem. Munson and Rosenblatt [9] considered a three-level chain and explored the benefits of using quantity discounts on both ends of the supply chain to decrease costs. Jaber and Goyal [10] investigated the coordination of order quantities amongst the players in a three-level supply chain with a centralized decision process.

The research on quality in an inventory/production system is believed to have been started by Porteus [11]. He assumed that there is a probability “ q ” that the process would go out of control while producing one unit of the product; and when “ q ” is close to zero, the optimal lot size and the cost rate can be derived approximately. Rosenblatt and Lee [12] formulated and analyzed a similar model that considers investments in process improvements. In a subsequent paper, Lee and Rosenblatt [13] considered the use of process inspection during a production run so that the shift to the out of control state can be detected and restoration can be made earlier. In a series of papers, Cheng [14,15] included the production process reliability into a classical economic order quantity model. Goyal and Gunasekaran [16] studied the implication of dynamic process quality control on lot sizing in a multi-stage production inventory system. Goyal et al. [17] reviewed a series of studies focused on production and quality control. Hong et al. [18] established the relationship between process quality and investment. Salameh and Jaber [19] considered a special production/inventory situation where items received or produced are of imperfect quality. Ganeshan et al. [20] analyzed the interaction between the economics of production and process quality with Taguchi’s perspective of poor quality. Chen and Tsou [21] developed a static financial model on quality investment with Taguchi’s perspective of poor quality in a production system. Tsou and Chen [22] developed a dynamic model for a defective production system with Poka-Yoke. Yoo et al. [23] proposed a profit-maximizing economic production quantity model that incorporates both imperfect production quality and a two-way imperfect inspection.

In 2002, Huang [24] integrated the quality improvement model into the supply chain system. He integrated the vendor/buyer approach and imperfect items into the inventory model. He considered a situation where the quantity of each delivery is the same at every shipment. Goyal et al. [25] developed an approach for determining an optimal integrated vendor/buyer inventory policy with imperfect quality. They developed the total cost function and proposed a solution procedure. Hsieh, C. C., Y. T. Liu, [26] examined a serial supply chain that consists of one supplier and one manufacturer, each having imperfect production and inspection processes.

In this paper, we develop a lot sizing and quality improvement model to evaluate costs to the buyer and supplier in a two level supply chain system. There are two significant contributions in this area. First, a dynamic lot sizing and quality improvement model is developed that can be used to evaluate costs to the buyer and supplier in a two level supply chain. Second, this paper adapts the continuous quality characteristic perspective but not the traditional go/no-go quality perspective to evaluate the cost of poor quality. Taguchi quadratic function has been used to evaluate the cost of poor quality.

In the next section, we develop the mathematical model. Then, we compare the differences between our model and the result of Huang [24] and Goyal et al. [25]. After that, we use a numerical case to verify our model. Concluding remarks are given in the last section.

2. The Model

$X(\beta)$: Buyer's purchasing cost function of unit product; this cost depends on the status of the product.

s : Buyer's cost of a perfect item

v : Buyer's cost of a poor quality item

Y : Buyer's order cost for each purchase

Z : Buyer's cost for unit item quality inspection

h_b : Buyer's holding cost per unit per period

β : The quality status of purchased product, a random variable

Q_i : Buyer's purchased lot size in period i

G_{i-1} : Buyer's inventory carried from period i to $i+1$

d_i : Buyer's demand in period i

P : Supplier's production cost of product per unit

I : Supplier's cost on quality improvement during the N period planning horizon.

S : Supplier's setup cost for production

h_s : Supplier's holding cost per unit per period

Q_j : Supplier's production lot size in period j

G_{i-1} : Supplier's inventory carried from period i to $i+1$

$D(X, I)$: Quality distribution function; (normal distribution function)

$\mu(I)$: Population mean of quality characteristic

μ_o : Initial value of population mean of quality characteristic

μ_t : Target value of population mean of quality characteristic function.

$\sigma(I)$: Population standard deviation of quality characteristic

σ_M^2 : Maximum system variance level

σ_L^2 : Minimum system variance level

$L(X)$: Loss of poor quality per unit products

K : Taguchi loss parameter

U : Distance of the target mean from the specification limits

It is assumed that there is only one buyer and one supplier in a two level supply chain. The demand for product is constant. The production rate is uniform and finite. Shortage is not allowed. We want to find the lot sizing and quality improvement model in this supply chain system.

Buyer's Total Cost

The buyer's total cost consists of purchase, inspection, holding, and order placement.

$$TC_b(Q_i) = X(\beta) \sum_{i=1}^M Q_i + Z \sum_{i=1}^M Q_i + h_b \sum_{i=1}^M [G_{i-1} + Q_i - d_i] + Y \sum_{i=1}^M \delta(Q_i)$$

Subject to

$$Z, Q_i, Y, h_b \geq 0$$

and

$$X(\beta) = \begin{cases} s & \text{if} \\ v & \text{if} \end{cases} \quad \begin{matrix} \text{Product quality is good} \\ \text{Product quality is poor} \end{matrix} \quad \begin{matrix} \text{if} \\ \text{if} \end{matrix} \quad \begin{matrix} Q_i = 0 \\ Q_i > 0 \end{matrix}$$

$$\delta(Q_i) = \begin{cases} 0 \\ 1 \end{cases}$$

(1)

The purchase cost of a perfect item is s , and the purchase cost of a poor quality item is v . Figure 1 presents the relationship between purchase cost and quality level for a buyer.

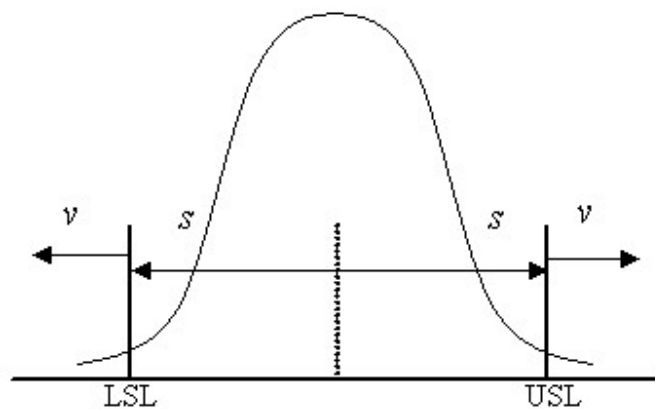


Figure 1: The relationship between cost and quality level.

Supplier's Total Cost

The supplier's total cost consists of production, holding, setup, poor quality, and cost on quality improvement.

$$TC(I, Q_j) = P \sum_{j=1}^N Q_j + h_s \sum_{j=1}^N [G_{j-1} + Q_j - Q_i] + s \sum_{j=1}^N \delta(Q_j) + \int_{-\infty}^{\infty} L(X) \times D(I, X) dX \sum_{j=1}^N Q_j + I$$

Subject to

$$I, Q_j, S, P, h_s \geq 0$$

and

$$\delta(Q_j) = \begin{cases} 0 & \text{if} \\ 1 & \text{if} \end{cases} \quad \begin{matrix} Q_j = 0 \\ Q_j > 0 \end{matrix}$$

(2)

$D(I, X)$ is the quality distribution function of the production. We assume the quality characteristic as a normal distributive function. Under this hypothesis, we can write the quality distributive function as:

$$D(I, X) = \frac{1}{\sigma(I)\sqrt{2\pi}} e^{-(X-\mu(I))^2 / 2\sigma(I)^2}$$

$\mu(I)$: Population mean of quality characteristic; population mean of normal distribution function.

$\sigma(I)$: Population standard deviation of quality characteristic,

$\sigma(I)$ and $\mu(I)$ are defined as functions of quality investment, I . The value of $\sigma(I)$ has an upper and positive lower bound. This boundary is produced by the nature of the production system or the limiting of practice. It is noted as, σ_M , the maximum or (current) level of the variance, and, σ_L , the minimum level.

There is an initial mean of the population of the quality characteristic, μ_o . μ_t is the target value of the quality characteristic. Both of $\sigma(I)$ and $\mu(I)$ are functions of quality investment, I . The function of $\sigma(I)$ and $\mu(I)$ can be written as [18, 27]:

$$\mu^2(I) = \mu_t^2 + (\mu_o^2 - \mu_t^2)e^{(-\phi I)}, \phi > 0$$

μ_o : Initial value of population mean of quality characteristic

μ_t : Target value of population mean of quality characteristic

$$\sigma^2(I) = \sigma_L^2 + (\sigma_M^2 - \sigma_L^2)e^{(-bI)}, b > 0$$

σ_M^2 : Maximum or (current) level of system variance

σ_L^2 : Minimum level of system variance

In order to link the costs of poor quality and quality performance, we use the Taguchi quadratic function. According to Taguchi, ‘The quality of a product is the (minimum) loss imparted by the product to the society from the time product is shipped’ [28]. Taguchi quadratic function directly links to the internal error cost and external error cost in direct poor quality cost and indirect poor quality cost. In our model, $L(X)$ has been used to denote Taguchi’s function.

In Taguchi’s function, the poor quality cost reduces to zero when the output of the process exactly meets the target, and it increases quadratically as the process moves away. If X is the actual value of the quality characteristic, Taguchi quadratic function, $L(X)$, can be expressed as [29]:

$$L(X) = K(X - \mu_t)^2; LSL \leq X \leq USL$$

$$L(X) = C_r; X \leq LSL, X \geq USL$$

$$K = C_r / U^2$$

$$U = (USL - \mu_t) = (\mu_t - LSL)$$

(3)

The inventory level of supplier and buyer are shown in Figure 2.

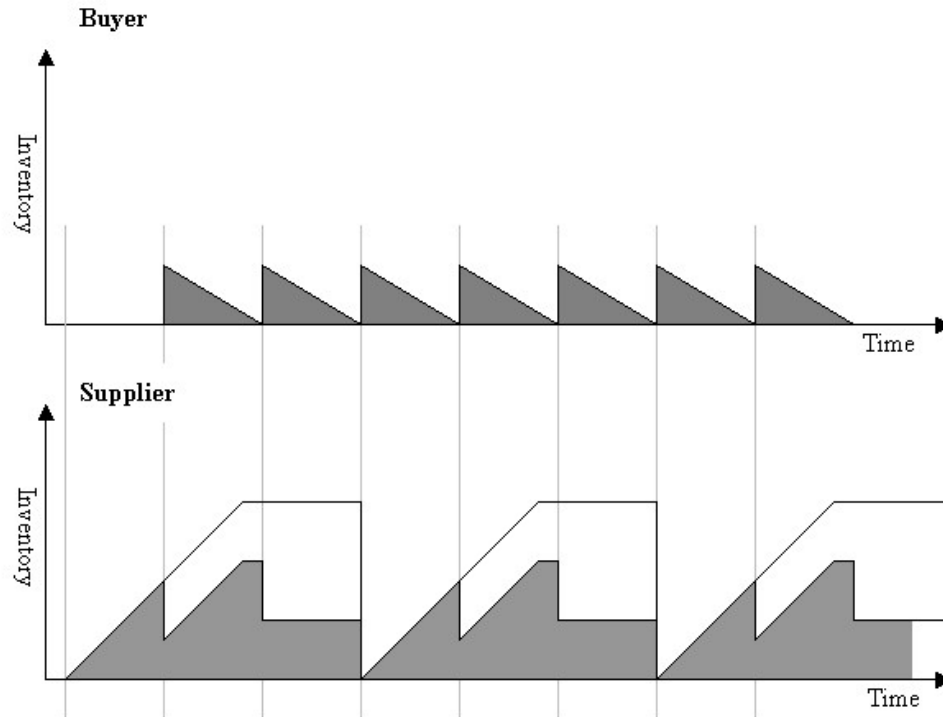


Figure 2: Inventory level change shown in time for buyer and supplier.

Comparing with the model of Huang [24], our model considers the total cost of a planning horizon, but Huang's model only considers the annual cost. Our time series model considers the change of quality and lot size in the time interval. This makes our model closer to a practical situation. Regarding imperfect product, Huang [24] follows the results of Salameh and Jabor [19] where each received lot containing a percentage of defects with a known probability density function. The defective items are treated as a single batch at a larger warranty cost than the unit cost for the vender by the end of buyer's 100% screening process. In our model, there is a poor quality cost on the supplier's side. We treat quality characteristic as a continuous function, but not a go/no-go quality characteristic. There is also a 100% screening process in the buyer's side, and the buyer pays a discount for poor quality product.

Considering the model of Goyal et al. [25], their model also considers the annual cost of a two level supply chain with imperfect items like the work of Huang [24]. Their model hypothesizes that the perfect items are sold at full price and the poor-quality items are sold at a discounted price. This situation is similar to our own. They try to find the optimal lot size in this imperfect supply chain system, but our model allows changing the lot size in the planning horizon.

3. Numerical Example

Based on the hypothesis of Goyal and Nebebe [30], we assume that the lot size in the supplier and buyer is constant in every period. The lot size in the planning production and purchasing horizon are shown in table 1.

Table 1: Lot size in production and purchasing periods.

Period (M)		1	2	3	4	5	6	7	8	9
Lot size		100	100	100	100	100	100	100	100	100
Period (N)	1			2			3			4
Lot size	300			300			300			300

The purchase cost for the buyer depends on the quality of product. The purchase cost of a perfect item is \$100, but the purchase cost of a poor quality item is \$50. The inspection cost is \$0.5 per unit. The holding cost for the buyer is \$0.05 per unit per period and the order placement cost is \$100 per order. The supplier has been requested to produce a product with a critical dimension of 5mm (μ_t). The production cost is \$12 per unit, and the setup cost is \$100 per production run. The holding cost is \$0.05 per unit per period for the supplier. The critical dimension is normal distribution, with a mean of 4.9mm (μ_0), and a variance of 0.01 (σ_0^2). A quality investment, I , can centralize the mean to 5mm and decrease this variance to a minimum of 0.0025 (σ_L^2). $\phi = 0.0081$ and $b = 0.00035$. The USL and the LSL of this critical dimension are 5.2mm and 4.8mm, respectively. Any product that falls outside these specification limits is rejected with a cost of \$15 (C_r). $K = 375$. Inventory at the beginning is 0. We set the cost of quality investment as \$0, \$10, \$100 and \$300, to see the effect of change on quality investment on the cost of buyer and supplier. The costs on every period for the supplier are listed in Table 2.

Table 2: Cost on every period of supplier with change on quality investment.

PERIOD (N)	$I = \$0$	$I = \$10$	$I = \$100$	$I = \$300$
1	5498.37	5395.77	4910.94	4763.72
2	5498.37	5395.77	4910.94	4763.72
3	5498.37	5395.77	4910.94	4763.72
4	5498.37	5395.77	4910.94	4763.72
Total	21993.5	21583.1	19643.8	19054.9

In Table 2, we notice that the total cost gradually decreases upon the increasing of the quality investment. This is because the poor quality cost is gradually decreased with investing the quality improvement. We further do the sensitivity analysis on the cost of quality investment to the total cost of supplier. The result is shown in Figure 3. The optimal value of quality investment is \$350.50 and the minimum total cost for the supplier is \$19049.50.

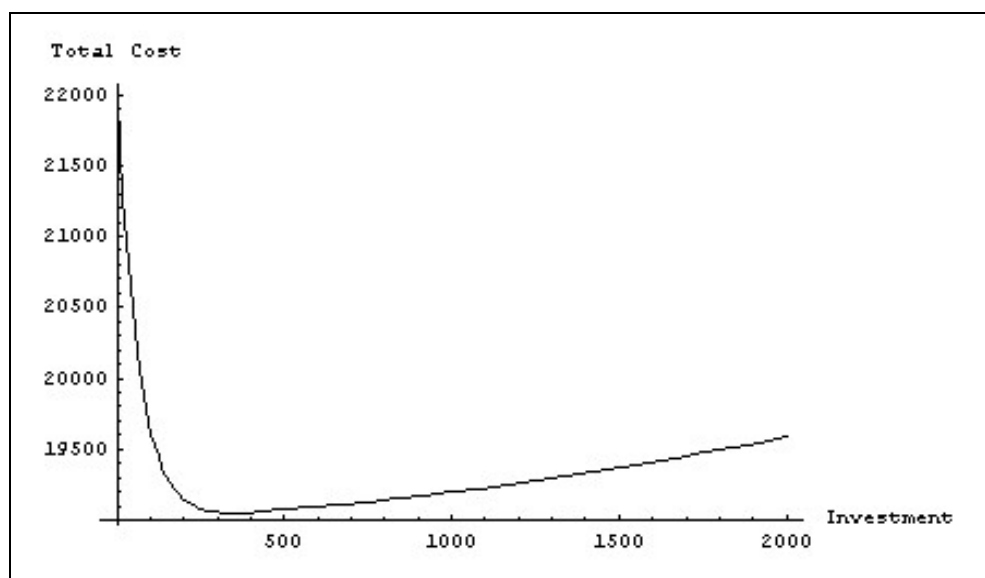


Figure 3: The behavior of the cost on quality improvement to the total cost of supplier

We consider the cost on buyer's side with a different quality investment cost on the supplier, \$0, \$10, \$100 and \$300. The result has been shown in Table 3.

Table 3: Cost on every period of buyer with change on quality investment.

PERIOD (M)	$I = \$0$	$I = \$10$	$I = \$100$	$I = \$300$
1	9352.47	9443.49	9832.8	9960.59
2	9352.47	9443.49	9832.8	9960.59
3	9352.47	9443.49	9832.8	9960.59
4	9352.47	9443.49	9832.8	9960.59
5	9352.47	9443.49	9832.8	9960.59
6	9352.47	9443.49	9832.8	9960.59
7	9352.47	9443.49	9832.8	9960.59
8	9352.47	9443.49	9832.8	9960.59
9	9352.47	9443.49	9832.8	9960.59
Total	84172.3	84991.4	88495.2	89645.3

In Table 3, the buyer's cost gradually increases with the cost of quality improvement on the supplier's side. This is because the buyer needs to pay more money to buy a good quality product. With the improvement on quality level, the proportion of good quality product increases. That means the buyer needs to pay more money for the same amount of items (The portion of good quality product increases.) We also do a sensitivity analysis on the cost of quality investment to the total cost of buyer. The result is shown in Figure 4. This figure reflects the same conclusion as in Table 3.

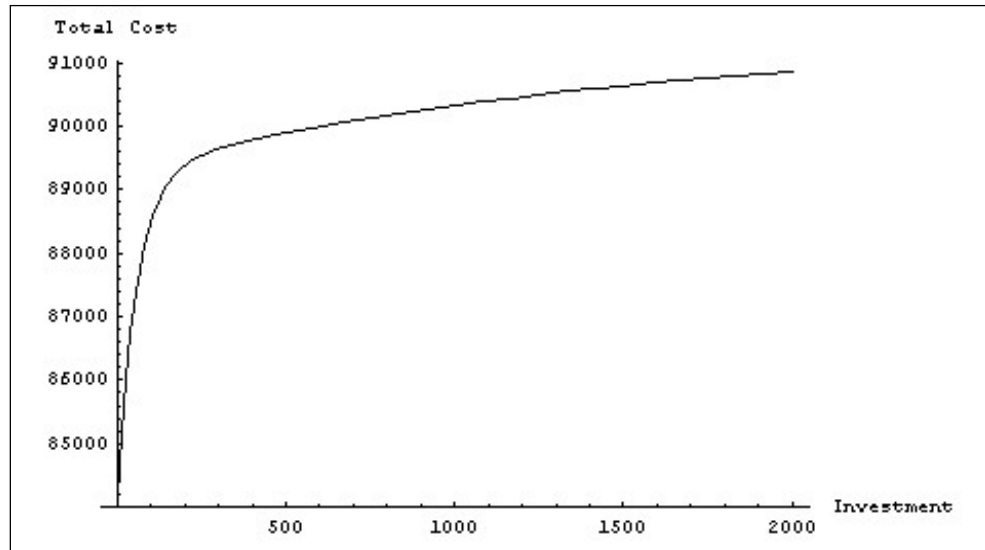


Figure 4: The behavior of the cost of quality improvement to the total cost of buyer

4. Summary and Conclusion

In this paper, we present a lot-sizing and continuous quality improvement model for a two level supply chain system. We use the continuous quality characteristic perspective but not the traditional go/no-go quality perspective to evaluate the cost of poor quality. According to our research, supplier's total cost gradually decreases with increasing the quality investment. This is because the poor quality cost is gradually decreased with investing on quality improvement. There is an optimal value of quality investment, which minimizes the supplier's cost. The buyer's cost gradually increases with the cost on quality improvement on the supplier's side. With the improvement in quality level, the proportion of good quality product increases. The buyer needs to pay more money to buy a good quality product. Our model provides a fundamental structure for the future study on the cost of quality improvement in a supply chain system. Further study in this field could focus on the quality investment model for a multi-level supply chain system. Researchers may include more financial factors or different quality evaluation models into their study.

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