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Editorial

Journal of Econmics and Behavioral Studies (JEBS) provides distinct avenue for quality research in the ever-changing fields of economics & behavioral studies and related disciplines. Research work submitted for publication consideration should not merely limited to conceptualisation of economics and behavioral devlopments but comprise interdisciplinary and multi-facet approaches to economics and behavioral theories and practices as well as general transformations in the fileds. Scope of the JEBS includes: subjects of managerial economics, financial economics, development economics, finance, economics, financial psychology, strategic management, organizational behavior, human behavior, marketing, human resource management and behavioral finance. Author(s) should declare that work submitted to the journal is original, not under consideration for publication by another journal, and that all listed authors approve its submission to JEBS. Author (s) can submit: Research Paper, Conceptual Paper, Case Studies and Book Review. Journal received research submission related to all aspects of major themes and tracks. All submitted papers were first assessed by the editorial team for relevance and originality of the work and blindly peer reviewed by the external reviewers depending on the subject matter of the paper. After the rigorous peer-review process, the submitted papers were selected based on originality, significance, and clarity of the purpose. The current issue of JEBS comprises of papers of scholars from Iran, Turkey, South Africa, Botswana, Indonesia, Kenya and Malaysia. Relationship between stock market returns & macro economic variables, working capital management, economic impact of tourism, impact of digital marketing on SMEs growth, ICT adoption, feminization of poverty, structural breaks, stability & demand for money, role of financial intermediaries in the internationalization of capital markets, evaluation of bank products appeal, relationship between organizational culture & organizational justice and deterring factors to entrepreneurship are some of the major practices and concepts examined in these studies. Current issue will therefore be a unique offer, where scholars will be able to appreciate the latest results in their field of expertise, and to acquire additional knowledge in other relevant fields.

Prof. Sisira R N Colombage, Ph. D.
Editor In Chief

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PAPERS

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Relationship Between Stock Market Returns and Macroeconomic Variables: Evidence from Turkey

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Abstract: Financial sector is considered to be important in signaling about economic development. It is a common belief that stock market returns contain significant information on economic well-being and act as a good source of market indicator in a country. This common belief is tested for a number of countries using various methods in literature. Whether stock market returns are affected by changes in primary macroeconomic variables have been tested for different time periods in many countries. The findings of the previous studies proved that the results may vary depending on country specific characteristics. The directions and magnitudes of the examined relationships seemed to be different for various economies. However, the mainstream of the findings is consistent with theoretical expectations. This study attempts to bring a light to the relationship between stock market returns and basic macroeconomic variables using monthly data between 2003 and 2015 and employing structural vector autoregressive (SVAR) model for the Turkish economy. Turkey is considered as one of the most vulnerable five countries whose stock prices are most responsive to, exchange rate shocks. This study concludes that the stock prices in Turkey responsive to the shocks in exchange rate, interest rate, and inflation in order. The results of the analyses are in accordance with theoretical expectations as well as with the findings of the vast majority in the literature.

Keywords: *Turkish Economy, Stock Market, Financial Sector, Macroeconomic Variables, SVAR Model*

1. Introduction

It is well known that stock markets have been an important indicator of the financial sector in many countries. Potential and idle resources can be transfered into productive channels through financial instruments in an economy so that the economy can grow faster. Mostly, investors respond to the complexities of macroeconomic magnitudes and affect stock market performance. It is mostly perceived that stock markets and macroeconomic magnitudes are in close relationship. This leads to a number of researches on the subject in an effort to identify some possible interactions between stock returns and macroeconomic variables. Previous studies found controversial relationships between asset prices and primary macroeconomic variables. Understanding the factors that are effective on stock markets is crucial for investors, researches, and policy makers. That is why more studies are required to explore and clarify this subject. This research aims to investigate the relationship between stock market returns and some selected macroeconomic variables such as inflation, exchange rate, and interest rate using Structural Vector Autoregresive (SVAR) approach. This study will test the direction and magnitude of such relationships using monthly data for a certain time period. In this research, the macroeconomic variables are inflation, exchange rate, and interest rate, which are considered to be the most effective on the changes in stock market returns. Turkey is among the “Fragile Five” countries, which means, the stock market returns are most vulnerable to the exchange rate volatility. This study aims at testing the vulnerability of the stock prices to the shocks in the examined macroeconomic variables.

2. Literature Review

Kim and Roubini (2000) indicated that previous empirical studies on the effects of monetary policy found evidence of several anomalies. This study develops a solution to the empirical anomalies in an open economy using SVAR approach and identifies monetary policy shocks by modeling the reaction function of the monetary authorities. This paper emphasizes the success of SVAR approach in identifying monetary policy shocks and handling anomalies that arise from monetary policy shocks. The SVAR approach contributes to solving the price puzzle and exchange rate puzzles for non-U.S. industrial countries and provides evidence that delayed overshooting may not systematically occur. This study suggests including measures of fiscal policy to examine the effects of such shocks on nominal and real exchange rate. It is also suggested that fixed exchange rate periods are worth to examine in order to study the effectiveness of monetary policy during these periods such as the Bretton Woods periods. Bruneau and De Bandt (2003) showed that between

January of 1979 and February of 2000 monetary shocks exhibit tight correlation while fiscal shocks are uncorrelated between France and Germany. The implication of SVAR models for Germany and France provides evidence that monetary policy shocks have a significant effect on the economy in contrary to fiscal policy. Fiscal shocks seemed to have no statistically significant effect on GDP and prices. Dungey and Fry (2009)'s research is an important contribution to the implication of SVAR to see the interaction of monetary and fiscal policies in New Zealand that has a history of long inflation targeting and well-constructed fiscal data set.

Chen et al. (1986) suggested that stock prices largely depend on the changes in macroeconomic variables that are vital in measuring economic performance of a country. Their findings reveal that some macroecomic variables such as unanticipated and expected inflation, interest rates, industrial production were significant determinants of stock prices. A number of studies investigated the relationship between stock market and industrial production. Hosseini et al. (2011) investigated the correlation between stock market indices and macroeconomic variables using monthly data from 1999 to 2009 for China and India. Their findings reveal opposite results for both countries. The long-run effect of crude oil price and money supply on China's stock returns is positive but negative on India's stock returns. Inflation was found to have a positive impact on stock returns for the countries. The study also shows that industrial production positively affects stock returns in India while it negatively affects in China.

Using the Turkish data and SVAR approach, Gökçe and Yiğit (2012) directed their research on the core inflation in the Turkish economy while Saraçoğlu et al. (2014) focused on the estimation of output gap. Saraçoğlu et al. (2014) asserted that output gap that is estimated by SVAR method produces better results in predicting actual inflation. Rad (2011) studied the relationship between Tehran Stock Exchange (TSE) price index and the macroeconomic variables such as consumer price index (CPI), liquidity (M2), exchange rate for 2001 – 2007 period using Unrestrictive Vector Autoregressive (VAR) model. The study concluded that selected macroeconomic factors are able to explain the part of volatility in asset prices. Some studies focused on the response of asset prices to oil price shocks. Rapidly increasing general price level of commodities causes a great tension in economies of both developing and developed countries. According to Hamilton (1983, 1996, 2003) oil price shocks have been one of the significant factors of stock market returns. The changes in oil prices leads to direct and indirect effects on the prices of commodities and this may cause a fluctuation in stock market returns. Some of the studies such as in Culter, Poterba, and Summers (1989), Martinez and Rubio (1989), and Gjerde and Saettem (1999) suspected the presence of any significant relationships between macroeconomic variables and asset returns. Stock returns are also found to be incapable of capturing the full information of changes in macroeconomic variables for Asian markets (Fung and Lie, 1990).

Stock Market Returns and Macroeconomic Variables: Theoretical Background: It is common belief that stock market performance or returns can be better explained by the performances of macroeconomic variables. In fact, the stock market has been perceived as a secure instrument in observing economic situation. The selected macroeconomic variables for this research study are ISE100, Inflation Exchange Rate, Interest Rate that are viewed as important sources of variation in stock returns in Turkey. Hendry (1986), Maysami and Sim (2001a, 2001b, 2002) studied the effects of interest rates, inflation, exchange rate, and money supply on stock market returns and confirmed the effects of these macroeconomic variables on returns for Hong Kong, Singapore, Malaysia, Thailand, Japan, and South Korean stock markets. Mukherjee and Naka (1995) found long-run relationship between short-term interest rate, money supply and stock market returns in the same direction while a negative relationship between inflation, interest rate and stock market returns was found. However, some research papers (Culter et. al., 1989; Sims & Schwert, 1989; Richards, 1996; Allen and Jagtianti, 1997) reported that they failed to find any significant evidence that the returns of stock markets are sensitive to changes in macroeconomic variables. This issue needs to be studied more in detail for different financial structure of a variety of countries.

ISE100 serves as the dependent variable and measures the returns of the stock market. It represents the closed prices of the stocks that are registered in Istanbul Stock Exhange Market. Inflation is a continuous increase in the general price level. Increases in inflation increase the cost of living and shift resources from investment to consumption thus reducing the demand for investments and assets. Therefore, a negative

relationship between inflation and asset prices is hypothesized. Here, the wholesale price index of the Chamber of Istanbul is used as a proxy for inflation rate. Exchange Rate is the price of a currency in terms of other currency. In this study, an exchange rate which comprises of half U.S. Dollar and a half Euro is used as a proxy for exchange rate. Variations in the exchange rate affect the import demand and cost of production. This will lead to reduction in profits and cash flows and that is why it is anticipated a negative relationship between exchange rate and stock market returns. Interest rate is the opportunity cost of holding money. High interest rate increases the cost of borrowing and impacts investments negatively. The upward movement in interest rate puts a downward pressure in overall economic activities. Therefore, a negative relationship between interest rate and stock market returns are expected theoretically.

3. Data and Methodolgy

The data are monthly and extend from the January of 2003 to the April of 2015. The selected variables for analyses are exchange rate, interest rate, inflation, and ISE100 (Istanbul Stock Exchange Market) and are compiled using Turkish Central Bank electronic data distribution system. ISE100 represents Borsa100 closed prices. The inflation variable is calculated by taking the logarithmic first difference of the wholesale price index (1968=100) of the Chamber of Istanbul. The exchange rate basket is comprised of 50% USD/TL and 50% EUR/TL. The interest rate variable is a weighted interest rate that applied to monthly term deposits by banks. The stochastic properties of the series are examined before analyzing the impact of selected macroeconomic variables. Time series datum is stationary if the variance and average values are constant in the examined period and covariance values between any two time spots depend on the time lag between these time spots. Stationary is necessary in order to generate reliable results and so valid interpretation (Granger and Newbold, 1974; Phillips, 1986). The stationarity tests are conducted in order to examine the time series properties of the variables. Here, ADF (Dickey and Fuller, 1981), PP (Phillips and Perron, 1988), and KPSS (Kwiatkowski, Phillips, Schmidt and Shin, 1992) tests are performed for stationarity. The results of these tests are summarized in Table 1. The results in Table 1 are documented for level and first differences of the variables of ISE100 index values and the natural logarithms of the exchange rate.

Table 1: Unit Roots Test for Stationary

Variables	ADF	PP	KPSS-*LM*	Variables	ADF	PP	KPSS-*LM*
lnISE100	-1.9210	1.7170	0.1640**	ΔlnBİST100	-9.3033	-9.3772	0.1253
	[0.3220]	[0.9791]			[0.0000]	[0.0000]	
Inflation	-7.9171	-7.4877	0.1345	ΔInflation	-9.3740	-34.2727	0.2528
	[0.0000]	[0.0000]			[0.0000]	[0.0001]	
lnExchange Rate	1.3278	1.4849	0.2914*	ΔlnExchange Rate	-8.9544	-8.9468	0.2090
	[0.9533]	[0.9658]			[0.0000]	[0.0000]	
Interest Rate	-4.8303	-5.1273	0.2023**	ΔInterest rate	-7.9011	-7.8677	0.1370
	[0.0001]	[0.0000]			[0.0000]	[0.0000]	

Notes: The test statistics of the optimal model are given based on Schwarz information criteria. The numbers in brackets are p-values. For ADF and PP tests H_0: series have unit root. For KPSS H_0: series are stationary. H_0 is rejected at *1%, ** 5% and ***10% significance levels.

The findings in Table 1 point out that the inflation variable is stationary at level based on the results of the three testing procedures. On the other side, the interest rate variable is stationary at level based on ADF and PP tests but is non-stationary based on KPSS test. Here, the interest rate variable is assumed to be stationary at level because the two test results confirmed its stationarity. lnISE100 and lnExchange Rate variables are non-stationary at level based on the three tests performed. The variables that are nonstationary at level are confirmed to be stationary at first difference. Thus the series lnISE100 and lnExchange Rate are individually integrated of order one I(1) except for Inflation and Interest Rate which are I(0). In this study, the relationship between ISE100 monthly returns and inflation, exchange rate monthly return, interest rate will be examined. Inflation and interest rate will be included at level while the lnISE100 and lnExchange Rate will be included at their first differences.

4. SVAR Estimates and Empirical Results

Sims (1980) proposed the use of VAR models when conducting economic research. A number of implications of the model has investigated oil price and macroeconomy interaction, stock prices and industrial production, stock prices and macroeconomic variables. Hamilton (1983), Burbidge and Harrison (1984), Ahmed and Wadud (2011), and Park et al. (2011) have used VAR approach to examine macroeconomic magnitudes and oil price relationship. The SVAR model is employed to estimate dynamic long-run effects of the selected macroeconomic variables on stock market compounded index returns. Therefore, the dynamic effects of the variables on each other are examined conveniently as bivariate instead of as a whole. The purpose of this is to eliminate the effects of the variables on each other (multicollinearity). The relations that will be examined depending on the VAR model ordering are inflation-ISE100, Exchange rate return – ISE100 return, and interest rate – ISE100 return. In order to obtain SVAR estimations, initially, the bivariate unrestricted VAR model should be constructed and optimal lag length should be determined. Tables 2, 3, and 4 show estimated unrestricted VAR model optimal lag length for inflation-BİST100 return, exchange rate-ISE100 return and interest rate-ISE100 return respectively. The relevant analyses have been carried out by employing the software package of EVIEWS.

Table 2: VAR Lag Order Selection Criteria

Lag	LR	FPE	AIC	SC	HQ
0	NA	32.52608	9.157793	9.238799	9.190706
1	**40.54971***	**25.90728***	**8.930252***	**9.092263***	**8.996077***
2	2.034139	26.95896	8.969981	9.212998	9.068718
3	6.958650	27.07978	8.974330	9.298353	9.105980
4	2.798757	28.01561	9.008104	9.413132	9.172666
5	4.159070	28.68963	9.031576	9.517611	9.229051
6	2.597818	29.71418	9.066244	9.633284	9.296631
7	4.301965	30.37590	9.087707	9.735753	9.351007
8	3.852288	31.14938	9.112128	9.841180	9.408340

* Indicates lag order selected by the criterion. LR: Likelihood Ratio, FPE: Final Prediction Error, AIC: Akaike Information Criteria, SCI: Schwarz Information Criteria, HQ: Hannan-Quinn Criteria.

Table 3: VAR Lag Order Selection Criteria

Lag	LR	FPE	AIC	SC	HQ
0	NA	368.6276	11.58554	11.66654	11.61845
1	**89.76790***	208.6119	11.01620	**11.17822***	**11.08203***
2	9.175991	**206.4323***	**11.00564***	11.24866	11.10438
3	4.335596	211.2792	11.02872	11.35275	11.16037
4	4.988929	215.1390	11.04663	11.45165	11.21119
5	3.065340	222.0938	11.07814	11.56418	11.27562
6	3.618990	228.2788	11.10519	11.67223	11.33557
7	6.054958	230.2839	11.11337	11.76142	11.37667
8	6.579501	231.2453	11.11681	11.84586	11.41302

* Indicates lag order selected by the criterion. LR: Likelihood Ratio, FPE: Final Prediction Error, AIC: Akaike Information Criteria, SCI: Schwarz Information Criteria, HQ: Hannan-Quinn Criteria.

Table 4: VAR Lag Order Selection Criteria

Lag	LR	FPE	AIC	SC	HQ
0	NA	3214.329	13.75112	13.83213	13.78404
1	711.0729	24.32354	8.867172	9.029184	8.932997
2	**23.18656***	**21.80797***	**8.757941***	**9.000958***	**8.856678***
3	3.432423	22.46446	8.787477	9.111500	8.919127
4	7.313053	22.49283	8.788538	9.193567	8.953101
5	4.401399	22.99297	8.810229	9.296264	9.007704
6	7.517315	22.95566	8.808184	9.375224	9.038571

7	2.967433	23.70533	8.839757	9.487803	9.103057
8	4.134299	24.25627	8.862009	9.591061	9.158221

* Indicates lag order selected by the criterion. LR: Likelihood Ratio, FPE: Final Prediction Error, AIC: Akaike Information Criteria, SCI: Schwarz Information Criteria, HQ: Hannan-Quinn Criteria.

Considering Schwarz information criteria with parsimonious, VAR models optimum lag length is determined Table 2 for inflation-ISE100 return, and Table 3 for exchange rate return-ISE100 return, and Table 4 for interest rate-ISE100 return. The heteroscedasticity is observed in the VAR model residuals for inflation-ISE100 at lag length 1 in VAR model residuals and this problem vanished at lag length 2. Based on this, VAR(2) model is convenient for all pair of variables. VAR residual Portmanteau tests for autocorrelation indicates no autocorrelation up to 12 months lag. White heteroscedasticity test shows no heteroscedasticity in residuals. VAR model will be within unit circle if inverse roots of AR characteristic is polynomial. The VAR residuals multivariate normality test is performed using structural factorization and the null hypothesis that assumes normality is accepted. These stability test results are tabulated and shown in appendix 1 for inflation-ISE100, and in appendix 2 for exchange rate-ISE100, and in appendix for interest rate-ISE100. Structural moving average (SMA) representation for SVAR estimations can be shown with bivariate system equation (1).

$$\begin{bmatrix} y_{1t} \\ y_{2t} \end{bmatrix} = \begin{bmatrix} \mu_1 \\ \mu_2 \end{bmatrix} = \begin{bmatrix} \theta_{11}^{(0)} & \theta_{12}^{(0)} \\ \theta_{21}^{(0)} & \theta_{22}^{(0)} \end{bmatrix} \begin{bmatrix} \varepsilon_{1t} \\ \varepsilon_{2t} \end{bmatrix} + \begin{bmatrix} \theta_{11}^{(1)} & \theta_{12}^{(1)} \\ \theta_{21}^{(1)} & \theta_{22}^{(1)} \end{bmatrix} \begin{bmatrix} \varepsilon_{1t-1} \\ \varepsilon_{2t-1} \end{bmatrix} + \cdots \qquad (1)$$

where $\theta_{ij}^{(k)}$ gives the dynamic multipliers or impulse responses of y_{1t} and y_{2t} to changes in ε_{1t} and ε_{2t}.

Here, y_{1t} represents inflation, exchange rate, and interest rate respectively, and y_{2t} represents BIST returns. The SVAR estimations will be renewed for each pair of variables. SMA representation can be employed for SVAR model impulse-response functions. The long-run accumulated impact of the structural shocks is captured by the long-run impact matrix

$$\mathbf{\Theta}(L) = \begin{bmatrix} \theta_{11}(L) & \theta_{12}(L) \\ \theta_{21}(L) & \theta_{22}(L) \end{bmatrix} = \begin{bmatrix} \sum_{s=0}^{\infty} \theta_{11}^{(s)} L^s & \sum_{s=0}^{\infty} \theta_{12}^{(s)} L^s \\ \sum_{s=0}^{\infty} \theta_{21}^{(s)} L^s & \sum_{s=0}^{\infty} \theta_{22}^{(s)} L^s \end{bmatrix}. \qquad (2)$$

Structural VAR models require imposing some restrictions on the system of equations to retrieve the structural shocks. In other words, we must use economic intuition to identify the parameters and the shocks of the structural model. Blanchard and Quah (1989) proposed an alternative identification method based on restrictions on the long-run properties of the impulse responses. Identification of the parameters of the SVAR is achieved through restrictions on the parameters of the SMA representation. The exogenous error terms ε_{1t} and ε_{2t} are independent and are interpreted as structural innovations. Realizations of ε_{1t} are interpreted as capturing unexpected shocks to inflation, exchange rate return and the rate of change in interest rate that are uncorrelated with the unexpected shocks to ISE100 return. In this study, it is assumed that the cumulative response to a structural shock of ISE100 on inflation, exchange rate return and interest rate to be zero in the long-run. When considering this restriction with equation (2), it can be written as $\theta_{12}(1) = \sum_{s=0}^{\infty} \theta_{12}^{(s)} = 0$ and it is meaningful in economic sense. In this case, the long run impact matrix $\mathbf{\Theta}(1)$ becomes triangular.

$$\mathbf{\Theta}(1) = \begin{bmatrix} \theta_{11}(1) & 0 \\ \theta_{21}(1) & \theta_{22}(1) \end{bmatrix}.$$

In order to take breaks in ISE100 into account, a dummy variable is defined by assigning the value of 1 for 2006.M05, 2008.M09, and 2013.M05 periods and 0 for other periods. This dummy variable is employed as an exogeneous variable in VAR estimations.

Table 5: SVAR Estimates[a]

Relations	Long-term parameter
Inflation-BİST100 return	-1.7625 (-2.8055) [0.0050]
Exchange Rate-BİST100 return	-4.4426 (-7.3255) [0.0000]
Interest rate-BİST100 return	-1.7738 (-2.9531) [0.0031]

[a] The numbers in paranthesis are z-statistics, p-values are in brackets.

The estimated results in Table 5 enable to extract some interesting remarks. According to the findings, the accumulated response of ISE100 returns in long-run accross a structural shock in inflation is -1.7625 points. So, monthly BIST return decreases by 1.7625 points. Similarly, as a response to a shock in exchange rate and interest rate, the accumulated long-run response of the ISE100 return will be -4.4426 and -1.7738 respectively. These responses are highly significant statistically. Another attention drawing point here is that the response of stock returns to fluctuations in exchange rate is considerably higher when compared to that of other variables. When these responses are in descending order, it follows a rank of exchange rate, interest rates, and inflation. The signs of responses are negative as expected. Structural decomposition uses the orthogonal transformation that is estimated from the structural factorization matrices. At this stage, forecast error variance decompositions measure the contribution of each type of shock to the forecast error variance. In other words, it determines how much of the forecast error variance of each of the variables can be explained by exogenous shocks to the other variables and enables to have important information about the dynamic structure of the system. This computation is handy in assessing how shocks to economic variables reverberate through a system. Table 6, Table 7, and Table 8 show variance decomposition results for inflation, exchange rate, and interest rate shocks respectively. The exchange rate shocks seem to be the main source of variation in ISE100 returns. The contribution of the exchange rate shocks to the forecast error variance of ISE100 returns is approximately 44.81 % while those of the interest rate shocks and the inflation rate shocks are 22.41% and 4.78% respectively.

Table 6: Structural Variance Decomposition of ISE100 Returns for Inflation Shock

Period	Standart Error	Inflation Shock	ISE100 Returns Shock
1	6.813419	2.846988	97.15301
2	7.030290	4.663878	95.33612
3	7.044484	4.656280	95.34372
4	7.048053	4.745057	95.25494
5	7.049221	4.776389	95.22361
6	7.049387	4.780543	95.21946
7	7.049396	4.780741	95.21926
8	7.049397	4.780741	95.21926
9	7.049397	4.780745	95.21926
10	7.049397	4.780746	95.21925

Table 7: Structural Variance Decomposition of ISE100 Returns for Exchange Rate Shock

Period	Standart Error	Exchange Rate Shock	ISE100 Returns Shock
1	2.275561	46.26613	53.73387
2	3.022355	44.80462	55.19538
3	3.098546	44.76732	55.23268
4	3.106564	44.80005	55.19995
5	3.108233	44.80901	55.19099

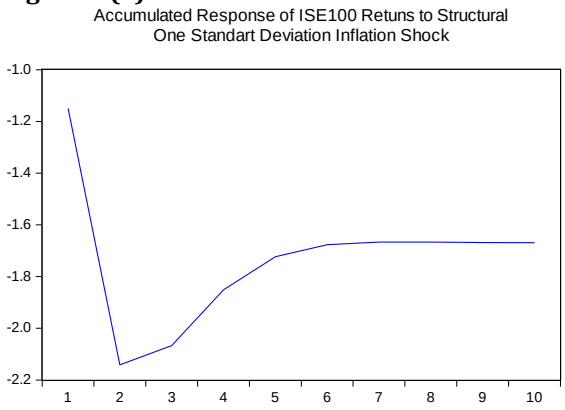
6	3.108537	44.80820	55.19180
7	3.108672	44.80810	55.19190
8	3.108683	44.80810	55.19190
9	3.108686	44.80810	55.19190
10	3.108686	44.80810	55.19190

Table 8. Structural Variance Decomposition of ISE100 Returns

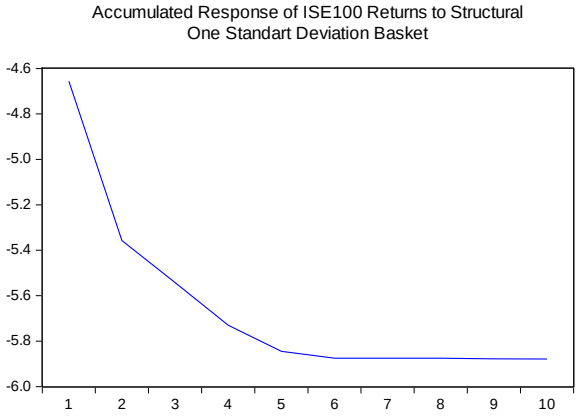
Period	Standart Error	Interest Rate Shock	ISE100 Returns Shock
1	6.827417	23.26415	76.73585
2	7.006251	22.42886	77.57114
3	7.021419	22.33486	77.66514
4	7.023190	22.35301	77.64699
5	7.024025	22.37122	77.62878
6	7.024580	22.38342	77.61658
7	7.024981	22.39219	77.60781
8	7.025298	22.39916	77.60084
9	7.025566	22.40505	77.59495
10	7.025798	22.41018	77.58982

One of the interesting findings of the VAR model is the graphs of impulse-response functions. The effect of a unit shock in one of the error terms in VAR model on the current and future values of the endogeneous variables can be observed through these functions. In this context, the cumulative response of ISE100 returns to the shocks are presented in graphs. In the graphs, the cumulative responses of ISE100 returns to inflation, exchange rate, and interest rate shocks are shown. The response of ISE100 to the all mentioned shocks is negative, or in other words, ISE100 returns have tendency to move downward. The ISE100 returns keep downward movement for 5-month period as a response to a shock in exchange rate. The cumulative negative movement arised by the inflation shock lasts 2 months and vanishes after 5 months. The negative effect of the interest rate shock is eliminated faster than other shocks. The interest rate shock dies out following 2-months period. The significant finding here is that the exhange rate has the strongest downward effect on ISE100 returns, which is consistent with the results of the variance decomposition. The ISE100 index is the most responsive to the changes in exchange rate in Brasil, India, Indonesia, South Africa, and Turkey, which is called "Fragile Five" by Morgan Stanley. This result verifies that Turkey is one of the five countries that the stock return is most vulnerable to exchange rate volatility. The impulse-response graphs are given in Figure 1.

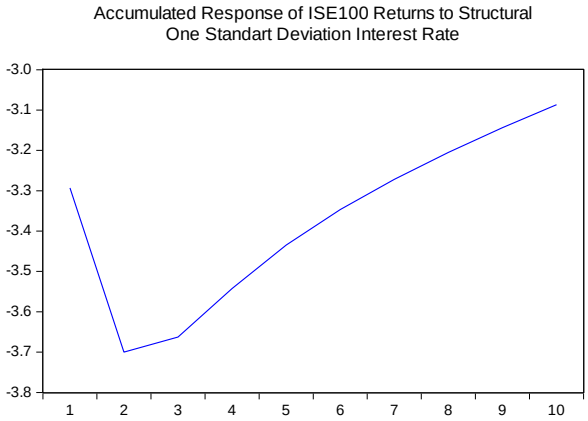
Figure 1 (a)



(b)



(c)



5. Conclusion

The relationship between stock market returns and macroeconomic variables has been an important topic for both academicians and finance practitioners. Most studies have been performed for developed economies. Whether the research is about a developed or an emerging market might be important because of the exposure of the market to globall or local risk factors. Some of the findings have proven the existence of relationship between stock prices and macroeconomic magnitudes while some other studies have failed to support such relationship. This study reveals that the response of the stock market returns to exchange rate is found to be remarkably greater in magnitude than other selected macroeconomic variables, following interest rate and inflation respectively. The estimated signs show negative relationship between the stock prices and the examined macroeconomic variables as initially expected. This study proves the relationship between stock prices and exchange rate, interest rate, and inflation in different degrees of sensitivity for the examined period in Turkey. The higher cost of living because of inflation leads to a decline in resources that is allocated for investment and instead increases consumption. Therefore, a decline in incentive for investment puts a downward pressure on the stock market returns. This results are in accordance with theoretical expectation but it should be kept in mind that there are findings contrary of this perception in the literature as well. It seemed that the expected relationships between stock market returns and macroeconomic variables may vary depending on economic and financial structure in a country. The responsiveness of stock markets to variations in macroeconomic variables is also a significant factor in evaluating such a relationship for an economy. Since Turkey is considered as one of the five countries whose stock prices are most vulnerable to exchange rate changes, the findings of this study verify this statement. ISE100 index is the most responsive to the shocks in exchange rate and to the shocks in interest rate and inflation in order. The SVAR results, the magnitude of the parameters, the results of variance decomposition and impulse-response analyses are all consistent with each other and theoretical expectations. The results of the study are expected to contribute to the related literature from Turkey's perspective. However, the controversy of the findings for various countries in the relevant literature contradicts with the view that the stock market is a reliable

economic instrument to observe economic progress. That is why more research studies are required to further explore this topic.

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Apendix 1: Results of VAR Residual Portmanteau Tests for Autocorrelations

Lags	Q-Stat	Prob.	Adj Q-Stat	Prob.	df
1	0.187336	NA*	0.188610	NA*	NA*
2	1.118001	NA*	1.132024	NA*	NA*
3	2.273298	0.6856	2.311224	0.6787	4
4	6.333516	0.6099	6.484225	0.5932	8
5	9.227515	0.6834	9.479413	0.6615	12
6	14.73176	0.5444	15.21623	0.5089	16
7	20.47504	0.4286	21.24464	0.3829	20
8	25.06733	0.4021	26.09935	0.3481	24
9	25.70270	0.5894	26.77586	0.5305	28
10	29.41426	0.5981	30.75636	0.5294	32
11	32.59519	0.6313	34.19270	0.5547	36
12	42.35985	0.3695	44.81895	0.2768	40

*Null Hypothesis: No residual autocorrelations up to lag 12.

Results of VAR Residual Heteroskedasticity Tests

Joint test:

Chi-sq	df	Prob.
31.23222	27	0.2617

Individual components:

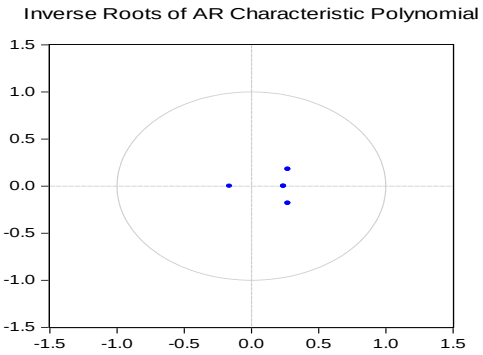
Dependent	R-squared	F(9,138)	Prob.	Chi-sq(9)	Prob.
res1*res1	0.060380	0.985313	0.4550	8.936177	0.4432
res2*res2	0.067849	1.116080	0.3555	10.04169	0.3471
res2*res1	0.087446	1.469318	0.1652	12.94195	0.1653

*Null Hypothesis: No heteroscedastity

Results of VAR Residual Normality Tests

Component	Skewness	Chi-sq	df	Prob.
1	-0.179923	0.798520	1	0.3715
2	-0.024076	0.014298	1	0.9048
Joint		0.812818	2	0.6660
Component	Kurtosis	Chi-sq	df	Prob.
1	3.655081	2.646311	1	0.1038
2	2.530055	1.361897	1	0.2432
Joint		4.008208	2	0.1348
Component	Jarque-Bera	df	Prob.	
1	3.444831	2	0.1786	
2	1.376196	2	0.5025	
Joint	4.821026	4	0.3062	

*Null Hypothesis: Residuals are multivariate normal



Appendix 2: Results of VAR Residual Portmanteau Tests for Autocorrelations

Lags	Q-Stat	Prob.	Adj Q-Stat	Prob.	Df
1	1.989105	NA*	2.002636	NA*	NA*
2	3.296575	NA*	3.328017	NA*	NA*
3	7.788124	0.0997	7.912494	0.0948	4
4	8.439341	0.3918	8.581801	0.3788	8
5	13.34910	0.3442	13.66323	0.3227	12
6	14.13875	0.5884	14.48625	0.5625	16
7	19.85855	0.4668	20.49000	0.4277	20
8	23.64226	0.4822	24.48993	0.4339	24
9	27.02853	0.5167	28.09545	0.4594	28
10	31.38119	0.4977	32.76352	0.4294	32
11	32.04943	0.6570	33.48541	0.5888	36
12	41.22974	0.4166	43.47576	0.3256	40

*Null Hypothesis: No residual autocorrelations up to lag 12.

Results of VAR Residual Heteroskedasticity Tests

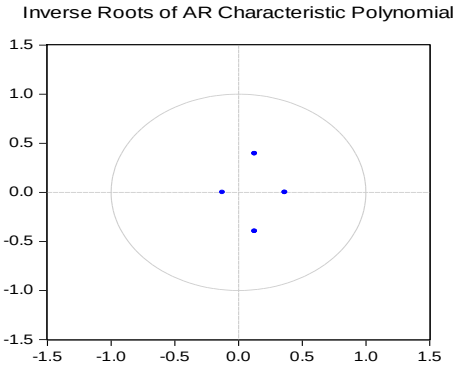
Joint test:					
Chi-sq	**df**	**Prob.**			
35.36462	27	0.1299			
Individual components:					
Dependent	R-squared	F(9,138)	Prob.	Chi-sq(9)	Prob.
res1*res1	0.142922	2.556901	0.0095	21.15240	0.0120
res2*res2	0.048345	0.778955	0.6361	7.155119	0.6210
res2*res1	0.030521	0.482715	0.8843	4.517042	0.8742

*Null Hypothesis: No heteroscedastity

Results of VAR Residual Normality Tests

Component	**Skewness**	**Chi-sq**	**df**	**Prob.**
1	0.298636	2.199862	1	0.1380
2	-0.185577	0.849487	1	0.3567
Joint		3.049349	2	0.2177
Component	Kurtosis	Chi-sq	df	Prob.
1	3.473318	1.381518	1	0.2398
2	2.923066	0.036499	1	0.8485
Joint		1.418017	2	0.4921
Component	Jarque-Bera	Df	Prob.	
1	3.581380	2	0.1668	
2	0.885986	2	0.6421	
Joint	4.467366	4	0.3464	

* Null Hypothesis: Residuals are multivariate normal



Appendix 3: Results of VAR Residual Portmanteau Tests for Autocorrelations

Lags	**Q-Stat**	**Prob.**	**Adj Q-Stat**	**Prob.**	**Df**
1	1.562774	NA*	1.573406	NA*	NA*
2	1.839721	NA*	1.854146	NA*	NA*
3	4.726960	0.3165	4.801121	0.3083	4
4	6.174160	0.6277	6.288521	0.6149	8
5	12.64234	0.3956	12.98286	0.3703	12
6	13.58867	0.6293	13.96917	0.6010	16
7	17.56561	0.6160	18.14356	0.5780	20
8	20.27697	0.6809	21.00985	0.6381	24
9	33.06808	0.2332	34.62916	0.1809	28
10	35.53744	0.3052	37.27746	0.2392	32
11	42.62373	0.2076	44.93272	0.1460	36

12	49.09945	0.1533	51.97983	0.0971	40

*Null Hypothesis: No residual autocorrelations up to lag 12.

Results of VAR Residual Heteroskedasticity Tests

Joint test:

Chi-square	**df**	**Prob.**
40.98059	27	0.0514

Individual components:

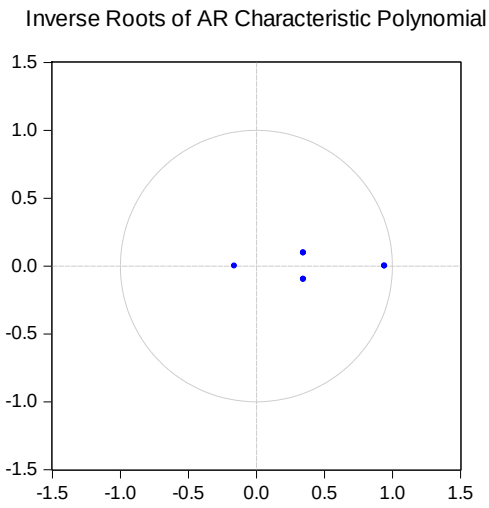
Dependent	R-squared	F(9,138)	Prob.	Chi-sq(9)	Prob.
res1*res1	0.142335	2.544665	0.0098	21.06558	0.0124
res2*res2	0.068830	1.133401	0.3434	10.18681	0.3356
res2*res1	0.071942	1.188625	0.3070	10.64744	0.3007

*Null Hypothesis: No heteroscedastity

Results of VAR Residual Normality Tests

Component	**Skewness**	**Chi-sq**	**df**	**Prob.**
1	0.332432	2.725937	1	0.0987
2	-0.134238	0.444492	1	0.5050
Joint		3.170429	2	0.2049
Component	Kurtosis	Chi-sq	df	Prob.
1	6.398967	71.24335	1	0.0000
2	2.849454	0.139762	1	0.7085
Joint		71.38311	2	0.0000
Component	Jarque-Bera	df	Prob.	
1	73.96928	2	0.0000	
2	0.584253	2	0.7467	
Joint	74.55354	4	0.0000	

*Null Hypothesis: Residuals are multivariate normal



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Working Capital Management Effect on the Performance of Wholesale and Property Industry in Malaysia

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Abstract: This paper provides the influence of working capital management (WCM) on the performance of public listed wholesale & retail industry and property industry in Malaysia from 2002 to 2011. Regression model is employed by using two measures of companies' performance namely Return on Assets, ROA (proxy to gauge the firm's profitability) and Tobin's Q, TQ (proxy to gauge the firm's market value) as the dependant variables. WCM components include Current Liabilities to Total Assets Ratio and Current Assets to Total Assets Ratio with three control variables which include of Firm Size (SIZE), Sales Growth (SLGR) and Financial Leverage (LEV) as the independent variables. The results to a very large extent indicate that CATAR and SIZE have significant positive effect on the performance of firm. It suggests that wholesale & retail industry and property industry in Malaysia should pursue unadventurous investment strategy by implementing high altitude of short term investment in order to make profit and create value for their shareholders. It also reveals that the larger the firms are, the more profitable they are; recommending the firms shall expand their business to achieve higher profit and accomplish shareholder wealth maximisation.

Keywords: *Working capital management, return on assets, Tobin's Q, current ratio, firm size*

1. Introduction

Working Capital Management (WCM) engages crucial function as an element of venture in asset that needs suitable financing strategy. As reported by Sanger in 2001, WCM operated as a constraint in financial performance as it engages short term financing and do not contribute to return on equity. This leads to lack of attention on WCM in financial decision making. Hence, to ensure a smooth operating cycle of the business, it is crucial for firms to maintain their short term investment. Thus, the main concern of WCM is to make sure that the organisation has enough cash flow to brighten up both upcoming operational expenses and maturing short-term debt to sustain its operations. Kargar & Blumenthal (1994) examined that a miss-management in working capital can make a firm goes bankrupt even the financial performance is earning profit. To strive desired trade-off between liquidity and profitability always become a dilemma in WCM (Smith, 1980; Raheman and Nasr, 2007). As mentioned in assumption of risk and return, a policy of investment with high risk will promise higher return while investment with low risk will give lower return. Therefore, firms with low risk and low return will have WCM with high liquidity whereas firms that have WCM with low liquidity will be facing a higher risk that might result a higher profitability. The problem in WCM is the firm must consider how to stabilise among risk and return.

The concern of this paper is aiming to analyse the influence of WCM towards the performance of public listed wholesale & retail companies as well as property companies in Malaysia. Three motivations give rise to this study. Firstly, Alam, Ali, Rehman and Akram (2011) each sector of the economy should be targeted and avoid a randomly collection because pas literatures revealed significant support that the ratios of working capital are different for dissimilar industries. This concern also raised by Pouraghajan and Emamgholipourarchi (2012). Secondly, Lazaridis and Tryfonidis (2006) proposed that different variables of practices and external variables should be included in order to provide strong relationship between WCM and firms' performance. Thirdly, previous researches centre on the develop market (Shin & Soenen, 1998 and Deloof, 2003) where they could have stronger WCM compared to emerging market. Therefore, supplementary studies and diverse indication on the WCM to improve finance literature about WCM could be gained by investigating WCM in emerging market such as Malaysia and focusing on the firms by segmental with additional control variables. Furthermore, the results of this study would give decision maker in the firm for better insights on how to create an efficient WCM which contributes to maximising firm's value to build up confidence among the investors in order to convince investors to invest in their firms. With this, the investors will invest in Malaysia

confidently which will eventually groom the economic and help the managers to apply innovative sets of stronger plans on the WCM to ensure there is enhancement in the growth of Malaysia's economic.

2. Literature Review

In Belgium firms, according to Deloof (2003) established significant inverse relationship between gross income and (i) the number of days accounts receivable (AR), (ii) inventories and (iii) accounts payable. It is believed by reasonably reducing the number of account receivables (AR) days and inventories, managers could make benefit for shareholders. Eljelly (2004) examined the connection between profitability and liquidity in Saudi Arabia. To gauge the profitability and liquidity level, Current Ratio (CR) and cash gap or Cash Conversion Cycle (CCC) were used and instituted that there were significant inverse relationship between the both levels. This affiliation becomes more evident in firms with high CR and higher CCC. The study also criticised that excessive liquidity could be the unnecessary costs that lead to lose of profits.

Nazir and Afza (2009) used non-financial companies from 1998 to 2005 listed on the Karachi Stock Exchange (KCE) to consider the link between WCM policies and profits of the organisations. The dependent variables of this study are Return on Assets (ROA) and Tobin's Q, whereas the independent variables include Total Current Assets to Total Assets Ratio (TCA/TA) and Total Current Liabilities to Total Assets Ratio (TCL/TA). Furthermore, the control variables of this study include the size of the firm (SIZE), growth of the firm (GROWTH), financial leverage (LVRG) and real annual GDP growth (GDPGR). Based on the results obtained from this study, there is a negative link between TCA/TA and profit of the organisation which further indicated that firms should pursue conservative investment policy to increase firms' profitability and value. In addition, this study also indicated that there is a negative link between TCL/TA and a firm's profitability. However, the study showed a positive link between TCL/TA and a firm's value. These results show that while aggressive financing policies have a bad consequence on a firm's profitability, they do have a positive influence on the value of the organisation. Investors typically invest in the shares of companies that apply an aggressive behavior in handling their liabilities in short term. Moreover, the findings of this study indicated that GROWTH and LVRG have a significant relationship with the book-based ROA. Such an indication confirmed the strong correlation LVRG and GROWTH have with the book value-based performance measured. Lastly, the findings of this study shows that the returns based on book value may not be affected by GDPGR but a position change in the level of economic activity may cause it to react positively.

A study done by Zariyawati et al. (2009) studied the correlation between WCM and the profitability of Malaysian firms for 11 years since 1996 to 2006 which employs (Operating Income + Depreciation)/Total Assets (OI) as a measure for profitability. Furthermore, CCC which is used in this study as a measure of WCM and the growth in firms' sales (SG) along with leverage are the two control variables of this study. A Pooled OLS regression analysis of this study shows results that indicate a significant negative correlation between CCC and a firm's profitability. Therefore, a firm's manager should take into careful consideration the reduction of cash conversion period with the intention of creating and maximizing profit for shareholders. Ray (2012) conducted an investigation on the link between WCM components and the Indian manufacturing firms' profit which were drawn from a sample of Indian manufacturing firms that have existed since 1996-1997 to 2009-2010. This investigation includes variables such as inventory turnover in days, average payment period, average collection period, CCC and current ratio, size of the firm, debt ratio and financial assets to total assets ratio on the net operating profits. According to the results of this investigation, there is a strong negative relationship between the measures of WCM which includes the number of days that accounts are receivable and CCC, financial debt ratio with corporate profitability. These results show that the longer the period of collection for accounts receivables, the lower the profitability of the firms. This negative link between the profit of an organisation and CCC indicates that the longer the CCC, the smaller the profitability of a firm. In addition, the results of this study also illustrated that there is an insignificant negative relationship between the net operating profit ratio of a firm and its size. Hence, the results of this study advise managers to create value for their investors by minimising the number of days given for AR. Furthermore, less profitable firms are likely to reduce their AR to decrease cash gap in CCC due to the negative relationship between firms' profitability and AR. To conclude, when a firm manages their working capital efficiently, the profit of the organisation will be improved. These results propose that value can be built by managers for investors when the number of days given for a reasonable minimum accounts receivable.

Charitou, Lois and Santoso (2012) studied firms that were listed on the Indonesian Stock Exchange during 1998 to 2010. By using firms from various industry including Tobacco, Retail and Wholesale, Food and Beverages and Apparel, they found out that CCC and Net Trade Cycle had a negative impact on a firm's profitability. Besides, it also showed the riskiness of a firm, measure by debt ratio, has a negative correlation to the firm's Return on Assets. This result suggested that by taking advantage of credit terms to suppliers, it creates a positive value to the market. Besides, a firm will also need to maintain their inventories at an appropriate level where it is enough to satisfy clients but not too low to avoid losing them. As long as clients' credit terms are concerned, the firm will remain competitive to keep their existing clients as well as attract new clients. There was a similar study in Pakistan conducted by Afeef (2011) to find out the potential effect of WCM on Small and Medium-size enterprise (SME) profit performance. The main intention of the study was to formulate an empirical relationship between WCM and profitability of SME that were listed on Karachi Stock Exchange. In addition, by using a sample of 40 firms between 2003 and 2008, a total of 240 firm-year observations, this paper aimed to analyze a few component of WCM on SMEs' profitability using Return on Assets (ROA) and Operating Profit to Sales (OPS) to measure the firms' profitability. ROA and OPS are the dependent variables and CCC, RCP, ICP, PDP and CR are the independent variables whereas other variables such as Natural Logarithm of Sales, Sales Growth and Financial Leverage measure the efficiency of WCM. The result were, (i) strong negative relationship of ICP and RCP with the OPS of smaller firms; (ii) no significant associations between firm's profitability and PDP, CCC and C; (iii) no significant association between WCM with liquidity and ROA; and (iv) no significant relationship of firm's profitability with PDP and CCC, but a firm's profitability has association with ICP and RCP.

Different from Afeef (2011) sample selection, Usama (2012) focused on "non-food related stocks in the Karachi Stock Exchange. Data covered 18 companies and six years from 2006 to 2012. Usama (2012) examined the effect of different variables of WCM such as Average Payment Period (APP), Average Collection Period (ACP), Cash Conversion Cycle (CCC), Inventory Turnover in Days (ITID), Debt Ratio (DR), Current Ratio (CR), Financial Assets to Total Assets Ratio (FATA), and Net Operating Profitability (NOP) using pooled least square regression and common effect model. From the study it is found that (i) there was a significant direct effect of WCM on profitability and liquidity of the organisations; and (ii) Size of the Firm which was gauged in terms of natural logarithm of sales (LOS) and FATA had significantly direct effect on firm's profitability. Hence, this research on the wholesale & retail and property industries in Malaysia by using latest research in the market models is another extension to the WCM theory in response to the profitability and market value of the firms.

3. Methodology

Sample of 204 companies in wholesale & retail sector and property sector listed in Bursa Malaysia are selected in this study as both sectors contribute to the economy growth in Malaysia.[1] The sample comprises of 124 companies from wholesale & retail industry and 80 companies from property industry. The data of each company are extracted from the annual reports respectively. Samples with missing data during the study period (2002 to 2011) are excluded. Panel data regression model is employed by using two measures of company's performance namely Return on Assets, ROA (proxy to measure company's profitability) and

[1] Economic Transformation Programme has 12 National Key Economic Areas, Wholesale & retail industry is one of it. It is forecasted that wholesale & retail industry in Malaysia will create 454,190 new jobs and boost the Gross National Income (GNI) by RM156 billion by 2020. Retail contributed RM100.6 billion and RM114.4 billion to GNI in 2010 and 2011 respectively. It is the fourth biggest contributor to GNI (JabatanPerdanaMenteri, 2012).
The population of those below the age of 30 is around 60% and this is a group of potential first house buyers. The 10-year population growth rate is at 2.2%. This is a reason for the growth in residential properties estimated to be strong in Malaysia (Afiq, 2012). Furthermore, according to According to Nor, Nurhisham and Afiq (2012), anecdotal evidence suggested that the potential of the property sector is quite encouraging. The sales of the property has risen from RM61 billion in 2006 to RM138 billion in 2011. The rising incomes, living standards, greater urbanisation and the favourable demographics of the population in Malaysia have led to strong performance of the property sector.

Tobin's Q, TQ (proxy to measure the company's market value) as the dependant variables. Return on Assets (ROA) is measured as below:

$$ROA = \frac{Income\ Available\ to\ Common\ Equity\ or\ Net\ Income\ (NI)}{Mode\ Of\ Total\ Assets\ or\ Average\ Total\ Assets\ (ATA)}$$

ROA is the ratio of the Net Income (NI) to the Average Total Assets (ATA). ATA is the average of the values of Total Assets (TA) from the company's balance sheet in both the beginning and end of each fiscal period. ROA shows the profitability of a company before leverage and is compared with companies in the same industry and commonly acknowledged as reflection on the efficiency of management generate earnings from its assets. Tobin's Q (TQ) is measured as below:

$$TQ = \frac{Total\ Market\ Value\ of\ Firm\ (MVF)}{Total\ Assets\ (TA)}$$

Tobin's Q (TQ) is the ratio of the Total Market Value of Firm (MVF) to the Total Assets (TA). The MVF is calculated by adding up the Market Capitalization, Liabilities, Preferred Equity and Minority Interest. It is computed as the product of company's closing price and the shares outstanding. If the stock is undervalued, the Tobin's Q will be low, between 0 and 1. This shows that the cost to replace a company's assets is larger than the value of its share. Two components of WCM (WCM) are used as independent variables. They are the ratio of Current Assets to Total Assets (CATAR) and the ratio of Current Liabilities to Total Assets (CLTAR). The independent variables used here are in consistent with previous study by Nazir and Afza (2009), Raheman, Afza, Qayyum and Bodla (2010), Azam and Haider (2011), Mona (2012), Kaddumi and Ramadan (2012), Vahid, Mohsen and Mohammadreza (2012), Hussain, Farooq and Khan (2012) and Pouraghajan and Emamgholipourarchi (2012). The CATAR is computed as below:

$$CATAR = \frac{Current\ Assets\ (CA)}{Total\ Assets\ (TA)}$$

This ratio basically shows the share of current assets investment to total investment in assets. Thus, it reflects the structure of assets and the amount in form of current assets per each ringgit invested in assets. If the CATAR shows positive sign, this means that the company invest a large portion on short term investment to increase the company's performance. This is a conservative investment policy. An aggressive investment policy is to invest a minimum level in Current Assets (CA) versus fixed assets and vice versa. Thus, for the management with conservative approach, the level of CA increases in proportion to the TA of the company (Nazir and Afza, 2009; Mona, 2012 and Vahid, Mohsen and Mohammadreza, 2012). Total Assets (TA) are listed on a company's balance sheet and represents everything that a business owns. In short, Total Assets (TA) are the sum of all investments, equipments, receivables, cash, intangibles, fixtures, furniture and any other items of value that owned by a business entity. Current Liabilities to Total Assets Ratio (CLTAR) is computed as below:

$$CLTAR = \frac{Current\ Liabilities\ (CL)}{Total\ Assets\ (TA)}$$

CLTAR can be computed by dividing the Current Liabilities (CL) with the Total Assets (TA). CLTAR is a financial ratio used to show the percentage of a company's assets that are provided through debt. A CLTAR of less than 0.5 indicates that the company's assets are mostly financed through equity and indicates lowly leveraged. Companies with higher levels usage of CL and less long-term debt are putting their liquidity on risk. This is an indication of aggressive financing policy (Nazir and Afza, 2009; Mona, 2012 and Vahid, Mohsen & Mohammadreza, 2012). There are three control variables or moderating variables which include Firm Size (SIZE) Sales Growth (SLGR) and Financial Leverage (LEV). These control variables are in accordance with the previous study by Deloof (2003), Teruel and Solano (2007), Nazir and Afza (2009), Raheman, Afza, Qayyum and Bodla (2010), Afeef (2011), Mona (2012), Vahid, Mohsen and Mohammadreza (2012), Hussain, Farooq and Khan (2012) and Charitou, Lois and Santoso (2012). Firm Size (SIZE) can be measured as:

$$SIZE = LN\ (Total\ Assets) = LN\ (TA)$$

SIZE is computed by taking the natural logarithm of total assets (LN TA). By taking the natural logarithm of total assets (LN TA) the heteroscedasticity and influences of outliers in the regression model can be reduced. Sales Growth (SLGR) is computed as below:

$SLGR = \frac{Sales\ t - Sales\ t-1}{Sales\ t-1}$ Or $SLGR = \frac{Net\ Sales\ for\ the\ Current\ Period}{Net\ Sales\ for\ the\ Last\ Period} - 1$

SLGR is calculated but taking the net sales for the current period deducts the net sales for the previous period and the value from the deduction is divided by the net sales from the last period. Financial Leverage (LEV) is measured as below:

$$LEV = \frac{Average\ Total\ Asstes\ (ATA)}{Average\ Total\ Common\ Equity\ (ATCE)}$$

LEV is calculated by dividing the Average Total Assets (ATA) with the Average Total Common Equity (ATCE). The computation for LEV used in this study is not in accordance to the previous studies. High degree of LEV will yield to a high interest payments and cause the firms to face the risk of bankruptcy if the firms are unable to make payments on their debt. Multiple linear regression analysis is applied to determine the association between independent and control variables with dependent variables (Hussain, Farooq and Khan, 2012). Fixed effects model is used. It presumes a specific intercepts and the impacts of all determinants on each firm which are constant over time are captured (Raheman, Afza, Qayyum and Bodla, 2010). For data processing and statistical tests, SPSS 20 are used. The regression models are:

$ROA = a + \beta1\ (CATAR) + \beta2\ (CLTAR) + \beta3\ (SIZE) + \beta4\ (SLGR) + \beta5\ (LEV) + \varepsilon_i$
(Equation 1)

$TQ = a + \beta1\ (CATAR) + \beta2\ (CLTAR) + \beta3\ (SIZE) + \beta4\ (SLGR) + \beta5\ (LEV) + \varepsilon_i$
(Equation 2)

Where:

a	= Intercept
ROA	= Return on assets of firm i for time period t
TQ	= Market value of firm i for time period t
CATAR	= Current assets to total assets ratio of firm i for time period t
CLTAR	= Current liabilities to total assets ratio of firm i for time period t
SIZE	= Firm size, natural logarithm of firm's total assets ($\ln TA$)
SLGR	= Sales growth or growth of annual sales
LEV	= Financial leverage of firms
ε	= Error term of the model

4. Results and Discussion

Return on Assets (ROA): The result of linear regression analysis for Equation 1 (ROA) are shown in Table 1a and 1b for combine wholesale & retail and property industry. Its regression equation is as below:

$ROA = -0.027 + 0.088CATAR + 0.001SLGR - 0.00001LEV - 0.112CLTAR + 0.008SIZE$

(S.E) (0.009)*** (0.010)*** (0.001) (0.000) (0.004)*** (0.001)***

(*** indicates significant at 1%; S.E. is standard error)

The result shows that CATAR and SIZE have positive effect on ROA while CLTAR has negative effect on ROA at 1% of significant level. SLGR and LEV are not significant. Positive coefficient of CATAR implies that firm wholesale & retail and property industries in Malaysia pursued conservative investment policy by having high level of short term investment in order to increase firm's profitability. This result indicates that both industries investment strategy was to maintain the real value of the business against inflation to ensure a desirable profit. This result is in confirmation with the findings conducted by Nazir and Afza (2009), Raheman, Afza, Qayyum and Bodla (2010), Pouraghajan and Emamgholipourarchi (2012) and Mona (2012) who also found conservative investment policy had positive effect on firm's profitability. Negative coefficient of CLTAR shows that both wholesale & retail and property industries implemented aggressive financing policy by using more short term debt to finance their operating activities and this strategy had negative effect on firm's performance. This result is in consistent with the findings made by Nazir and Afza (2009), Raheman, Afza, Qayyum and Bodla (2010), Pouraghajan and Emamgholipourarchi (2012), Mona (2012), Hussain, Farooq and Khan (2012) and Vahid, Mohsen and Mohammadreza (2012). The reason that both industries chosen to use short term financing such as raising fund through stock market rather than bond market is to avoid paying interest periodically to the bondholder. Unlike in the stock market, the decision to pay dividend to the stockholders is at the firm's discretion. However, the result has indicated that both firms strategy by using short term financing policy will hamper their profit.

Positive coefficient of SIZE implies that larger firms are more profitable. This result is in conjunction with the previous study conducted by Deloof (2003) and Vahid, Mohsen and Mohammadreza (2012). The result proposes that both wholesale & retail and property industries in Malaysia are expanding, and the expansion of their business could enhance their profitability. This is a good indicator wholesale & retail industry's strategy moved in line with Malaysia's Economic Transformation Plan in promoting wholesale & retail industry and both industries supporting Malaysia's Government Transformation Programme to grow soundly in achieving Malaysia's 2020 Vision to become a developed nation (Jabatan Perdana Menteri, 2010 and 2012). Insignificancy of SLGR and LEV is consistent with Charitou, Lois and Santoso (2012) and Usama (2012) respectively. Insignificant SLGR suggests that increasing in sales do not provide a promising profit to the firms. This advocate that both industries shall not only focus on marketing strategy to boost their sales but also should focus on the management issue with the ambition to generate profitability. Insignificant of LEV suggests that they did not focusing on bond market which did not result them to have commitment in interest payment and as the consequence high leverage did not show significant affect to their profit. This result support suggestion as mentioned in CLTAR discussion where both industries are focusing in stock market in raising fund.

Table 1: Linear Regression Results from the Combination of Wholesale & Retail and Property Industries (Model Summary[b])

Performances: Return on Assets (ROA)

Equation	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change (F-Statistic)	df1	df2	Sig. Change	Durbin-Watson
1	0.575[a]	0.331	0.329	0.0864	0.331	200.981	5	2034	0.000	1.107

a. Predictors: (Constant), SIZE, LEV, SLGR, CATAR, CLTAR
b. Dependent Variable: ROA
c. Equation 1: ROA = a + β1 (CATAR) + β2 (CLTAR) + β3 (SIZE) + β4 (SLGR) + β5 (LEV) + ε_i

Table 2: Linear Regression Results from the Combination of Wholesale & Retail and Property Industries(Coefficients[a])

Performances: Return on Assets (ROA)

Independent & Control Variables		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
	(Constant)	-0.027	0.009		-3.003	0.003
	CATAR	0.088	0.010	0.167	9.043	0.000
	SLGR	0.001	0.001	0.020	1.106	0.269
	LEV	-9.211E-006	0.000	-0.006	-0.326	0.745
	CLTAR	-0.112	0.004	-0.553	-29.844	0.000
	SIZE	0.008	0.001	0.114	6.231	0.000

a. Dependent Variable: ROA
b. Equation 1: ROA = a + β1 (CATAR) + β2 (CLTAR) + β3 (SIZE) + β4 (SLGR) + β5 (LEV) + ε_i

The regression equation for Equation 1 (ROA) for wholesale & retail industry is as below:
ROA = -0.042 + 0.097*CATAR* + 0.035*SLGR* – 0.001*LEV* – 0.201*CLTAR* + 0.018*SIZE*
(S.E) (0.011)*** (0.014)*** (0.005)*** (0.000)*** (0.014)*** (0.002)***
(*** indicates significant at 1%; S.E. is standard error, Adjusted R square is 0.226 and F-stats significant)
The regression equation for Equation 1 (ROA) for property industry is as below:
ROA = -0.018 + 0.049*CATAR* + 0.0003*SLGR* + 0.000005*LEV* – 0.104*CLTAR* + 0.006*SIZE*
(S.E) (0.016) (0.012)*** (0.001) (0.000) (0.003)*** (0.002)***
(*** indicates significant at 1%; S.E. is standard error, Adjusted R square is 0.61 and F-stats significant)

Result from property industry regression is consistent with results from combine both wholesale & retail and property, where CATAR and SIZE are positive-significant, CLTAR is negative-significant while SLGR and LEV are not significant. For wholesale & retail, both SLGR and LEV are significant at 1% level. This result has

proven that wholesale & retail industry depended on sales to achieve profit but property industry did not highly depend on sales to increase profit.

Tobin's Q (TQ: The results of linear regression analysis for Equation 2 (TQ) are shown in Table 3 and 4 for combine wholesale & retail and property industry. Its regression equation is as below:

TQ = -0.155 + 0.517*CATAR*– 0.014*SLGR* + 0.00008*LEV* – 0.022*CLTAR* + 0.099*SIZE*
(S.E) (0.078)** (0.086)*** (0.010) (0.007) (0.033) (0.012)***
(*** indicates significant at 1%, ** significant at 5%; S.E. is standard error)

The result shows that CATAR and SIZE have positive effect on ROA at 1% level while LEV, SLGR and CLTAR are not significant. Positive coefficient of CATAR implies that firm should adopt prudent working capital investment strategy in order to create value for shareholders' wealth. This result is consistent with the research conducted by Nazir & Afza (2009) and Mona (2012) that suggested a negative affiliation between aggressive investment policy and firm's value (TQ). The result proposes that both firms' strategy on conservative investment to expand their business had attracted the confidence of stockholders, hence increase their market value. Positive coefficient of Firm Size (SIZE) implies that larger firms are more profitable. This result is in confirmation with the previous study conducted by Nazir and Afza (2009), Mona (2012) and Vahid, Mohsen and Mohammadreza (2012) who also found size of the firm had positive effect on firm's performance (TQ). Increasing of the wholesale & retail and property industries provides an indicator that Malaysia is doing reasonably well and the economic growth is stable that giving them the opportunity in expanding the business.

Table 3: Linear Regression Results from the Combination of Wholesale & Retail and Property Industries (Model Summary[b])

Performances: Tobin's Q (TQ)

Equation	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change Statistic)	(F-df1	df2	Sig. Change	Durbin-Watson
2	0.234[a]	0.055	0.052	0.759	0.055	23.545	5	2034	0.000	0.367

a. Predictors: (Constant), SIZE, LEV, SLGR, CATAR, CLTAR
b. Dependent Variable: TQ
c. TQ = a + β1 (CATAR) + β2 (CLTAR) + β3 (SIZE) + β4 (SLGR) + β5 (LEV) + ε_i

Table 4: Linear Regression Results from the Combination of Wholesale & Retail and Property Industries(Coefficients[a])

Performances: Tobin's Q (TQ)

Independent & Control Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.155	0.078		1.978	0.048
CATAR	0.517	0.086	0.133	6.043	0.000
SLGR	-0.014	0.010	-0.032	-1.472	0.141
LEV	7.956E-005	0.000	0.007	0.320	0.749
CLTAR	-0.022	0.033	-0.015	-0.678	0.498
SIZE	0.099	0.012	0.183	8.405	0.000

a. Dependent Variable: TQ
b. TQ = a + β1 (CATAR) + β2 (CLTAR) + β3 (SIZE) + β4 (SLGR) + β5 (LEV) + ε_i

Result of SLGR is not significant which is consistent with Nazir and Afza (2009) and Mona (2012). This suggests that the shareholders did not focusing on the sales of the firms and their major objective is to achieve their wealth maximisation. The insignificant result of LEV is consistent with Pouraghajan and Emamgholipourarchi (2012). The insignificant result of CLTAR is consistent Pouraghajan and Emamgholipourarchi (2012). This result also supports the analysis as mentioned before where the firms main source of financing was not from bond market and it was from equity market, as the consequence they

did not have high leverage problem. Comparing to regression of ROA (Equation 1), result on TQ is consistent except CLTAR is significant in ROA equation but not significant in TQ equation.
The regression equation for Equation 2 (TQ) for wholesale & retail is as below:
TQ = -0.076 + 0.315*CATAR* – 0.008*SLGR* – 0.001*LEV* + 0.043*CLTAR* + 0.189*SIZE*
(S.E) (0.109) (0.141)** (0.053) (0.004) (0.144) (0.018)***
(*** indicates significant at 1%, ** significant at 5%; S.E. is standard error, Adjusted R square is 0.095 and F-stats significant at 1% level)

The regression equation for Equation 2 (TQ) for property industry is as below:
TQ = -0.087 + 0.300*CATAR*– 0.005*SLGR* + 0.00018*LEV* – 0.027*CLTAR* + 0.086*SIZE*
(S.E) (0.063) (0.044)*** (0.003) (0.000)** (0.012)** (0.009)***
(*** indicates significant at 1%, ** significant at 5%; S.E. is standard error, Adjusted R square is 0.16 and F-stats significant at 1% level)

Result from wholesale & retail regression is consistent with results from combine both wholesale & retail and property, where CATAR and SIZE are positive and significant while SLGR, LEV and CLTAR are not significant. For property industry, both LEVR and CLTAR are significant at 5% level. As comparison for wholesale & retail results, three independent variables (SLGR, LEV and CLTAR) are significant in ROA equation but not in TQ equation. Meanwhile, LEV is significant in TQ equation regression for property industry but not significant in ROA equation regression.

5. Conclusion

This study examines the impact of the WCM on firm's performance. The two components of working capital are the independent variables which include Current Assets to Total Assets Ratio (CATAR) and Current Liabilities to Total Assets Ratio (CLTAR). Firm's performance is measured by both the profitability known as Return on Assets (ROA) and market value known as Tobin's Q (TQ). There are three independent variables correlated to firm's working capital and profitability is included in this study as well and consists of Firm Size (SIZE), Sales Growth (SLGR) and Financial Leverage (LEV). CATAR and SIZE are found to be the most consistent variables because both the CATAR and SIZE proven positive influence on the organisation's performance (ROA and TQ) from the (i) combination of wholesale & retail and property industry, (ii) wholesale & retail industry and (iii) property industry. This signal provide a large extent on the evidence that both wholesale & retail and property industries are adopting conservative investment strategy to expand the business and this stability indeed assisting Malaysia to grow consistently to achieve as a developed country. CLTAR is also considered consistent because CLTAR also has significant positive or negative impact on the firm's performance (ROA and TQ) from the combination of wholesale & retail and property industry, wholesale & retail industry and property industry except for the TQ from the combination of wholesale & retail products and property industry which shows insignificant impact. LEV only has significant negative impact on firm's profitability (ROA) from wholesale & retail industry and significant positive impact on firm's market value (TQ) from property industry while impact on the others is insignificant. Finally, SLGR has significant positive impact on the ROA of the firm.

This study will lead to an identification and understanding of impact of WCM on firm's performance, particularly for wholesale & retail industry and property industry in Malaysia public listed companies. The goal and objective of a firm is to maximize profits and create value for their shareholders. Thus, managers should adopt strategies that that have positive impact on the firm's performance. Besides, managers should reduce the tactics that will cause terrible consequence on the performance of the organisation. As a conclusion, the overall results of this study imply that Malaysian firms should pursue a prudent investment strategy by maintaining high level of investment policy in short term in order to increase firms' performance. However, following investment strategy with aggressive method via long term investment will cause Malaysian firms to have their profitability and value to depreciate. Overall results of this study also implicate that larger Malaysian firms presumed to support the yield of the profitability, thus larger Malaysia's organisations are profitable and can create more value for their shareholders. These results suggest that Malaysian firms should increase their size in order to have higher profits and create more value to their shareholders.

Recommendations: Future researcher can include firms from other industries as they may provide different results that can be used to compare against the results of this study. Furthermore, future study could include other dependent, independent, and control variables in their studies to investigate more variables that could have significant impact to the WCM.

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The Economic Impacts of Tourism on the Local Community of Bergville, Kwazulu Natal, South Africa

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Abstract: Tourism is playing an increasingly important role in the local and national economy. The outstanding beauty of the northern Drakensberg is a prime tourist attraction in KwaZulu-Natal, attracting a regular flow of tourists throughout the year (Okhahlamba Municipality, 2013). The primary objective of this research is to investigate whether the benefits of tourism that are supposed to be reaped by the local community of Bergville, exist. If so, what are these benefits? There might be people from the local community, who are working within the tourism sector, but what are the types of jobs that they do, their level of job-satisfaction, and the extent to which they are able to earn a living from employment within the tourism sector? Do they have the necessary skills and training to allow them to make a successful career within the tourism sector? The White Paper on the Development and Promotion of Tourism (DEAT, 1996), states that with any tourism development in the local communities, local people should be involved in the decision making. They should be trained if they lack the necessary skills required to participate in that development. All these issues are relevant to Bergville as the region has a lot of tourism development, and it is a place that integrates tourism and conservation.

Keywords: *Rural tourism, economic impact, tourism employment, role of government*

1. Introduction

Tourism has a direct impact on the local economy (Lubbe, 2005). Tourism also contributes indirectly to the local economy in two important ways. Firstly the businesses that benefit directly from visitor spending make purchases from local suppliers, and secondly, household incomes resulting from direct and indirect employment stimulate demand for local (Keyser, 2002). According to the World Travel and Tourism Council (WTTC, 2008), tourism is a flourishing and multimillion dollar industry and that contribute to the employment creation for local communities. Tourism has frequently been promoted as the answer to development in areas that have long been on the periphery of the global economy (Gauzy and Nijkamp, 2007). Governments from every corner of the world believe that tourism is a dominant creator of employment (Keyser, 2002). Why is government interested in promoting development through tourism? The reason is that government has realized the prospective benefits of tourism job creation (Wahab and Pigram, 1997 & Davidson, 1993). Furthermore, Roche (1992) said "from the perspectives of the destination community, the creation of jobs is an especially relevant reason for a destination to promote its tourism sector". Tourism provides a high proportion of entry-level jobs for people entering the workforce for the first time. Yet, jobs in tourism can involve long hours and a high degree of inequality especially for the front line staff with long hours of low-paid unskilled labour with no view of progress or long-term career prospects (Wahab and Pigram, 1997).

Bergville has much to offer in the domain of tourism that can benefit the local community, tourism providers and tourists' alike (Okhahlamba Municipality IDP, 2013). It further states that, ttourism is playing an increasingly important role in the local economy of Bergville, with the wide asset base including a range of accommodation facilities, outdoor sporting and recreational activities. The primary objective of this research is to investigate whether the benefits of tourism, that is supposed to be reaped by the local community, actually exist. If so, what are these benefits? Hypothetically there should be people from the local community, who are expected to be working within the tourism sector, but what types of jobs do they do, and what level of satisfaction do they derive from their jobs? The *White Paper on the Development and Promotion of Tourism (*DEAT, 1996*)* states that tourism must provide maximum economic benefits to local people, such as includes employment, entrepreneurial activities etc.

Tourism in the area: Tourism is playing an increasingly important role in the local economy. The outstanding beauty of the northern Drakensberg is the prime tourist attraction which draws a regular flow of tourists throughout the year (Drakensberg Tourism, 2007). The area is traditionally marketed as a family

holiday or a short stay/getaway destination. A wide range of accommodation facilities are available as well as a wide range of outdoor sporting and recreational activities. The whole Drakensberg area draws half a million tourists per annum and is considered the third most important destination in South Africa for foreign tourists. Most of the larger resorts have developed conference facilities and this market has shown considerable growth. A 600-bed conference facility, Alpine Heath, was opened in 1996. However, since then there has not been any sign of development of large scale establishments for hosting conferences. The regions' midway location between Johannesburg and Durban has made it ideal for business meetings and conventions. The fact that the resorts are 300 km away from the closest international airport could be a limiting factor in the future, however. Unfortunately, there has been a reduction in the number of local tourists visiting the area. Holiday patterns are changing, in that annual holidays are shortening, weekend breakaways are being undertaken less frequently and a swing towards less expensive resorts is taking place. In the last decade, there has been a substantial increase in tourist accommodation, particularly self-catering and B&B establishments. Occupancy rates have declined and there is an oversupply of accommodation. Other problems relate to a lack of high-quality accommodation and generally a low level of catering quality. Staff training and general service levels and a lack of co-coordinated industry organization are seen as limiting tourism development in the Bergville area. Lack of integration, marketing and a creative approach to local tourism also need to be addressed (Okhahlamba Municipality IDP, 2006). The tourism industry does provide jobs, but it has not been integrated into the local community. As a result, its socio-economic impact has been limited.

2. Literature Review

Tourism is viewed as a key driver for economic expansion and employment creation in South Africa and therefore integral to strategies aimed at local economic development (Crompton, 1995). Tourism is one of the major industries that have been recognized for its potential to contribute to the economic gain of many regions (Kabirige, 2002). The purpose of economic impact analysis is to measure the economic benefits accruing to a community and to calculate the differential impacts made by visitors from various origins Viljoen, (2007).These benefits include income, employment, public sector revenue and imports generated in a holiday area by tourist spending. Economic impact studies may be measured as the net economic change in the income of the host residence that results from tourist spending. In this study measurement of economic impact is limited to the effect of tourism on income and job creation in the host communities surrounding tourism establishments (Viljoen and Tlabela 2007). Tourism in most instances has been used as a vehicle for improving the lives of local communities (Poon, 2006). One of the key objectives for national responsible tourism development guidelines for South Africa, issued by the Department of Environmental Affairs and Tourism (2002), is to "ensure communities are involved in and benefit from tourism". In a speech delivered at the opening of the local government tourism indaba, in 2009 in Cape Town, the Minister of Environmental Affairs and Tourism said "government is an engine room that drives the planning and management of South Africa's natural and cultural assets. Tourism relies on having these resources in a healthy state. Local government also provides the core utilities and infrastructure on which the tourism industry is based" Local government furthermore manages attractions such as sports stadia, convention centres, parks, events and other amenities and also enables local tourism management through the provision of visitor information and through being the primary source of funding for regional and local tourism organizations(DEAT, 2002).

According to National Responsible Tourism Development Guidelines for South Africa Tourism (DEAT, 2002), tourism still plays a relatively small role in the South African economy and has some areas of improvement if it is to fulfill its potential to significantly contribute to national income. Traditionally the main focus of governments have been on the growth in international arrivals and total foreign exchange earnings and not on fostering entrepreneurial opportunities for the historically disadvantaged, poverty relief, employment on local economic development. Both domestic and international tourism can create employment, it is a relatively labour intensive industry and it employs a multiplicity of skills from accountants and hairdressers to tour guides and trackers. Tourism can provide very good skills development opportunities for local communities (DEAT, 2002). As much as it is a broader perception that tourism provides employment opportunities, Viljoen and Tlabela (2007) argue that technological advancement has resulted in the decline in employment rates within the tourism industry. Viljoen and Tlabela (2007), further states that most of the jobs are performed by women and are characterized by low pay, poor conditions, low career mobility and limited

access to training programmes. The categories where women are employed are housekeeping, waiting and kitchen work. Shaw and William (1998) argue that the actual quality of jobs in tourism is a matter of debate since most jobs are classified as being semi or unskilled and low paying jobs. They further state that most of the jobs created through tourism are seasonal.

The economic potential of tourism as key driver for growth and development in South Africa is based on the competitive advantages that the country has in its natural and cultural resources. South Africa's tourism industry mostly involves the so called "sea, sun and sand" as perceived by the visitors to South Africa as this represents the ideal holiday. Popular new forms of tourism types include, among others, cultural and adventure tourism. Many of these tourism types are ideally suited to developing tourism in rural localities. *The White Paper on the Development and Promotion of Tourism in South Africa* (DEAT, 1996) states that the prime tourism attractions are not located in the city centers but in the rural areas. Tourism can offer rural residents business opportunities in activities that cater for the tourist trade. Such locally-operated businesses which may be seasonal can provide local residents with valuable opportunities to develop business skills and can give local crafters, farmers, and food processors, among others, outlets to sell their products to local retail establishments. The rural location of many of these attractions provides rural inhabitants with the opportunity to participate and share in the benefits of tourism development and employment creation

Types of tourism-related employment: Tourism is perceived as an industry that has the potential to provide jobs, income and economic diversity for rural communities. There are three types of tourism-related employment: direct, indirect and induced employment as discussed below. Tourism also has the power to stimulate the creation of employment in sectors not directly involved with tourism, e.g. the construction of a hotel or any tourism development will, to a great degree, involve construction companies (Youell, 1998). Goodwin, (2002) believes that employment in tourism is not easy to measure on the basis of official statistics. Employment in tourism is important because in the face of global recession, it has been one of the most consistent sources of job growth (Font, 2002). Riley, Ladkin and Szivas (2002) argue that there is a question of whether the jobs created in South Africa through tourism are filled by nationals or by immigrants and this depends largely on the scale of tourism, the types of jobs available, and the labour market alternatives. According to Robinson and Anderson (2004) the actual quality of jobs in the tourism industry in South Africa is a matter of debate, as most jobs are classified as being semi-or unskilled. Robinson and Anderson (2004) further state that 54% of jobs in the hotel and catering sector are unskilled as compared to 74% in the economy as a whole. While direct employment in tourism (in bars, hotels and restaurant, etc.) may be mostly unskilled, indirect employment in supply industries and producer services may be highly skilled and well rewarded. Marianna, (2005) also mentions a very critical point, stating that in South Africa the distinction between direct and indirect employment is necessary when considering the gender distribution of jobs.

Direct employment for local communities: Direct employment in tourism occurs in hotels and other types of accommodation, transport operations, travel agencies, tourist attractions, government departments and tour operators. Considering the different types of services people can offer to tourists, it is evident that tourism can employ a multiplicity of skills at the same time creating entrepreneurial opportunities. Tourism is capable of creating employment mainly for semi-skilled and unskilled workers, which constitute a large percentage of the labor force. In this way tourism can create many jobs within a short period of time. Gray, (2004) pointed out that direct employment is created for those people working in different sectors of the tourism industry travel and tourism, accommodation, and catering, tourist attractions and business facilities and tourism promotion and information. These can be the front line staffs that come into direct contact with visitors, or behind the scenes staff who cook, clean and do office work related to tourism. According to Ward (1997) direct employment entails working in hotels, restaurants, souvenir shops, bars, and clubs and tour businesses. It also provides goods and services to tourists such as fruit sellers, taxi drivers, unofficial tour guides and market traders. Meyer (2007) states that it is difficult to create an accurate indicator of direct employment in tourism, as all sectors except hotels serve local residents as well as visitors.

Indirect employment for local communities: Ward (1997) depicts indirect employment as the selling of goods and services to tourism businesses, e.g. a farmer selling milk and eggs to restaurants, a small manufacturer supplying furniture for hotels, crafts people supplying souvenir shops, musicians etc. Direct employment and indirect employment work hand in hand, they depend on each other. For a tourism company

to run, it needs equipment, resources and materials that can be used to accomplish the mission of the company which is to provide services to its guests. Indirect employment created by tourism refers to the jobs of those people who manufacture the goods and provide services which are purchased by the businesses and organizations which serve the tourists directly (Davidson, 1993). Companies that provide indirect employment is those in economic activities that serve and support direct employment companies. Such companies include construction firms and suppliers of equipment (Keyser, 2002). Meyer (2007) also believes that the demand for new employees is also created in other areas such as agriculture, horticulture and different manufactures. The amount of indirect or secondary employment generated depends upon the level at which the tourism industry is incorporated with the local economy (Raina and Agarwal, 2004).

Tourism Multipliers: According to Thomas (2004) the money paid by the tourist to a hotel or attraction will be used by the owners in different ways. Employees will receive wages, which they in turn will spend in the local economy on goods and services. The hotels and attractions pay for operational costs, e.g. hotel supplies of food and beverages and services will be paid out of revenue. Some of the money may be passed to banking institutions to pay debts or to the government, in the form of taxation. Money can also leak out of the local economy through imports, savings and outward investment and taxation; this means that money does not stay directly within the local economy to be spent by local people on indigenous goods or services (Lew, 2005). Burns (2000) states that tourism expenditure is not solely limited to direct expenditure. Employees will receive wages which they will spend on the local economy on goods and services thereby generating opportunities for further employment and income. Tourism activities and development result in economic development for the area concerned (Keyser, 2002). Tourism provides direct benefits through tourist spending on goods and services at the destination. Indirect benefits are generated through circulation of tourism expenditure at the destination as most of the industry is interdependent; for example the hotels depend on the fresh produce from local suppliers, thus the fresh producer is benefiting indirectly. Therefore jobs are created directly (tourism companies) and indirectly (like suppliers) and consequently the income generated from tourism is being spread through many sectors (the so called "multiplier effect"). The circulation of money within the local communities allows the improvement of economy and it creates more employment opportunities, not only to the tourism sector but across various sectors of the economy (Burns, 2000). According to Mankiw (2007), multiplier effects also benefit government because, as more jobs are being created, consumer spending rises and there will be a higher demand and more people will be hired. Mankiw (2007) further states that when local firms buy from local suppliers, this will result in faster circulation of money. Meyer (2007) argues that the initial tourism investment could circulate indefinitely in the economy but it does not. One of the reasons is the fact that money leaks out of the economy, therefore foreign exchange earnings from tourism do not reveal its true economic benefits.

3. Methodology

This research is an empirical study that concerns the economic impacts of tourism in the communities of Bergville. The tools used for information gathering were questionnaires and semi-structured interviews. Two different sets of questionnaires were constructed and administered to the local communities of Bergville and the tourism establishments of Bergville and the sample size for them is succinctly put below. Responses to the questionnaires provided data for both qualitative and quantitative analysis. Since many of the respondents were semi-literate, the process of administering the surveys became semi-structured interviews; the respondents discussed a range of issues and concerns around tourism and employment in Bergville. Thus the mixed method approach was appropriate in achieving the objectives of this research. The researcher administered the questionnaires to 14 tourism establishments. Ten (10) participants were hotel/resorts which are in the Bergville area. Sample size was influenced or rather determined by the existence of the above mentioned establishments. This was in both tribal areas of Amazizi and Amangwane and included big and small hotels. The hotels cannot be identified by name as anonymity was a pre-condition for participation in the study. Three (3) establishments were bed and breakfasts and 1 art and craft centre. Thus, at least 75% of tourism establishments in the Bergville area were sampled. 25% could not return the questionnaires. The tourism establishment questionnaire focused on the role played by these establishments in the employment of local communities. The first part of the questionnaire identified the type of employer e.g. hotels/resorts, bed and breakfasts, arts and crafts; as well as length of time in operations. Other aspects of the questionnaire included the average occupancy rate in the area, the average percentage of occupancy during peak and off-

peak seasons, average wages paid to employees, and the number of part-time and permanent employees. The last part of the questionnaire touched on the assistance and type of assistance that the local tourism authority gives to the local tourism businesses.

The community questionnaire focused on community demographics, which addressed the gender, age, and level of education of the respondents. The second part of the questionnaire looked at community occupation. The main focus in this part of questionnaire was to find out whether participants are employed; the sector within which they are employed and the income earned. Community involvement in tourism in the area was also an aspect that was studied. This section of the questionnaire considered the involvement of the community in tourism in terms of types of jobs that they get within the tourism sector in the area; the level of satisfaction of the tourism employees; and qualifications of the people who are working in tourism. The last part of the questionnaire addressed the level of tourism development that has taken place in the area. 307 questionnaires were administered members of the Bergville local community and 14 local tourism establishments including hotels, Bed and Breakfasts and community tourism organizations. As this community was in a large geographical area, the researcher had to visit people at their homes to obtain more information. Convenience sampling was used for collecting the community data. The researcher went door to door and those residents who were at home and who were willing to be interviewed participated in the study. The first set of questionnaire was administered by the researcher to the community of Bergville, which comprises of two tribal authorities (Amangwane and Amazizi). 307 questionnaires were answered by the members of the community who were randomly selected. The head-men of the two authorities were interviewed to get more insight and perceptions about the economic impact of tourism on the local communities

4. Results and discussion

The result of the study explores how tourism could contribute in a more meaningful way to improving the lives and circumstances of the local communities. The first part of the study focused on the demographics of the study area. Of the 307 respondents, 45.9 % are males and 54.1 % are females in this community survey on the impact of tourism. The occupation category of the Bergville community shows that the area is mostly dominated by scholars/students with a high percentage of almost 42% between the ages of 16 – 30 years. It was expected that there will be a high level of unemployment in the area. However, 30% of the population is employed in different sectors such as agriculture, security, education and retail in the area. There are those that are unemployed but they receive income from government grant. Even though a third of the population is employed, almost 24% of those employed are earning below R1000. This is not enough to maintain their families. This shows that there is a lack of economic activities in the area even though it is characterized by commercial farming. The level of income tells about the quality of jobs in the area. There were very few who were earning above R4000 and they are mostly employed as teachers from outside of Bergville.

When one looks at the main source of income of the area, one sees that almost 44% of the sample relies heavily on government grants. This means that there are no employment opportunities that can sustain the wellbeing of the area; it also shows that the area is poor in general with no major development to attract major investment. This is proved by the fact that even though some people were employed, they also continue to receive government grant. This is because the types of jobs that they are in are not giving them enough to support themselves. The area that has sustainable economic activities would provide quality and sustainable jobs to the community. However it is not the case with the Bergville area. Looking at the nature of employment for the area, people are employed in sectors such as farming, retail, tourism and other such as government offices, the security sector, construction, education etc. The nature of employment and age of the population of the area shows that almost 46% of the population is employed in other sectors and almost 38% is employed in tourism. The “other” sector and tourism are the major employers in the area.

It is a fact that the income of respondents could be highly influenced by their occupation. Of the 160 respondents for whom data were available, almost 46% earn less than a R1000 per month. Out of all respondents that are earning less than R1000, Almost 29% of them are employed and about 6%are self-employed. The low income could be caused by the fact that some of the respondents are not employed permanently. As a result they do not have sustainable income for their families. Looking at the respondents

that are earning above R4000, 92% of the respondents earning this amount are employed. Most of the group that is earning more than R4000 per month is working as teachers in the local schools. There are about 4.2% of students that are employed. These are the students that are studying at the higher institutions who are experiential learning around the area. Some are working as teachers and some, of course, are working in tourism establishments. About 42% of respondents did not report their level of income and therefore the results need to be interpreted carefully and cannot be generalized. Pensioners generally earned less than R3000 as they relied on pension and other government grant. About 22% of respondents are mainly occupied in administrative positions. A small number (5, 9%) reported doing "other" types of jobs. This category includes waitresses, chefs, drivers, tour guides etc. Almost 30% of the respondents working in tourism are employed as gardeners most of the time. This was not surprising because the findings of this study revealed that most of the respondents do not have any formal education to claim higher positions within tourism establishments.

Respondents were asked about the length of time they had been working within tourism. Of 47 respondents for whom valid data was obtained, almost 32% had worked for their current employer up to 3 years. Those working in tourism for 4 – 6 years comprised 48.9% while 19.1% had been working for longer than 6 years. One person had extensive experience of 24 years working in tourism. The table below provides information on whether those working in tourism possess an appropriate tourism qualification. Those that are indirectly employed and those that are working for private companies (cleaning companies) are not allowed to live in-house. About 26% of the people working in tourism are very satisfied. This level of satisfaction could be determined by factors such as salary and the type of job or maybe just job security. Also, their earnings are sufficient to support their family members as they are based in the rural areas and the cost of living is not high. The 14.9% are unsatisfied and 25.5% very satisfied. One of the main reasons for dissatisfaction was low salary that is paid to the people working within these tourism establishments, as a result they cannot provide for their families in an acceptable way. Another issue that was raised was the fact that there is no recognition for the effort that they put in. They feel there is no career development for them (employees). Some were not satisfied because they have been working there for a long time but they are still not permanent, so there is no recognition of the efforts and as a result there is no motivation to go to work at all. Some believe that even if there are opportunities they are not given a chance to prove their ability to perform better at work.

The results show that there is a difference in wages paid by the establishments to their permanent and part-time workers. Those that are employed permanently are earning more than those that are part-time. Almost 36% of employers pay their workers more than R4000 per month compared with 14% who pay similar amount to their part-timer employees. This was not surprising because permanent employees are working almost every day and they have fixed salary; above the fixed salary, they earn more for over time. The part time employees are only employed during peak seasons and some of them are employed as relief staff for particular days if one of the employees is not available for different reasons. However, it is also possible for part-timers to earn well, especially during peak season. Through the discussion with the community members, they agreed "yes, people from the local communities are employed in the hotels or any tourism establishments, but they only work in the maintenance department". They do acknowledge the fact that most of them do not have the required qualification but even if other opportunities do come they don't get them. It is given to outside people. When there is a major development taking place, they believe that almost 90% of workers in the construction phase are from the community. Once the development is completed they are not recognized to be part of that development. Not all of them can be employed but even those that are eligible for employment e.g. those with matric, they don't get opportunities once the development is completed. One other aspect that was indicated is that no one from the local community is being employed at a management level. This could be because the majority of the community members have high school education and to be in a management position requires a certain degree of knowledge, skills and qualifications.

5. Conclusion

The opportunity exists to re-orientate the traditional Drakensberg tourism industry to one that is globally competitive, environmentally sensitive and directly linked to promoting socio-economic development within rural communities (Okhahalamba Municipality IDP, 2006). International trends towards ecotourism and cultural tourism provide an opportunity for specialized tourist development that provides livelihood

opportunities for poor rural communities. Community based tourism initiatives, if properly planned and implemented, could make a considerable impact on the local economy (Kabirige, 2002). Through the discussion with the community members, they agreed "yes, people from the local communities are employed in the hotels or any tourism establishments, but they only work in the maintenance department". They do acknowledge the fact that most of them do not have the required qualification but even if other opportunities do come they don't get them. It is given to outside people. When there is a major development taking place, they believe that almost 90% of workers in the construction phase are from the community. Once the development is completed they are not recognized to be part of that development. Not all of them can be employed but even those that are eligible for employment e.g. those with matric, they don't get opportunities once the development is completed. Tourism is regulated at a national level, provincial level and at a local level. For tourism to flourish, the local tourism authority has a vital role to play in developing their areas. This is because they have to identify the area with potential and develop them, as they are close to all the activities taking place. Therefore they should take the initiative of tourism awareness. In the case of Bergville, locals are aware of what tourism is, but they do not understand what tourism can bring to their lives. As indicated earlier, to be aware of tourism does not mean that one has to know the hotels in the area or beautiful scenery. They should take ownership of activities taking place and use their own resources

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An Exploration of the Impact of Digital Marketing on SMEs Growth and Brand Popularity in Rural South Africa

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Abstract: The purpose of the study is to establish understand of digital marketing and its use by SMEs in rural South Africa, the extent of its use, examining contributing factors to its use and their implications. Primary data was collected using a quantitative research technique with the use of a structured questionnaire as the survey instrument. A total of 134 SMEs operating in rural KwaZulu –Natal were selected. Questionnaires were distributed to the business owners/ mangers between august and December 2014. SPSS (22.0) version was employed to for data analysis. The findings of this study revealed that some rural places in South Africa still experiencing ICT problems for being not available make it difficult for SMEs growth through the use of digital marketing. The reliability analysis, reflected coefficient values from 0.70 to 0.833. The analysis of factors limiting use of digital marketing among the rural SMEs, are presented with recommended strategies and implications on how to approach the challenges. Digital marketing of rural SMEs may be strengthened through awareness and providing adequate information about ICT and through diverse of internet marketing programmes.

Keywords: *Digital marketing; exploration; brand popularity; rural; SMEs*

1. Introduction

Since the beginning of emerging of new technologies including digital, networking as well as social media business environment has drastically change. The interception of these has also change the marketing landscape all over the world as many business conduct their marketing communications with customers through digital marketing (Lekhanya, 2014). This view echoed by the e agency (2015) that gone are the days of relying on costly and time consuming traditional marketing methods such as print advertising and direct mail as this are sharing the platform with digital marketing which is new ways of communicating online with customers. According to Jagongo & Kinnyua (2013), it has become important for the business owners and marketers to understand how social media work as a communication and marketing tool and how they can significantly grow their businesses. Digital marketing tools such social media, today, is among, the best opportunities available to a brand for connecting with prospective consumers (Neti, 2011). However, a remote rural location is shown to influence innovation in different aspects of the business in different ways (North & Smallbone, 2000). Thus means that the use digital marketing tools are likely to be low in South African rural areas.

Problem statement: it has been noticed that although larger companies are benefiting impressively from adopting a mobile marketing strategy, the uptake from small business is still very low (Elvin web marketing, 2015). Literature indicates that many businesses are experiencing tremendous pressure to extend to where their customers are paying attention (Jagongo & Kinnyua (2013). Baird & Parasni (2011, in Jagongo & Kinnyua, 2013) support the premise that in the present day, the heart of customer activity is progressively becoming virtual, situated inside a social media or social networking. According to Valliere, 2010), important in entrepreneurial are the requirements of good management practices in particular in relation to marketing functions, communications, technology and perception of opportunities since these aspects can influence the rate of entrepreneurial firm development. However, it is not yet understood how these concepts may operate in the digital marketing context of rural SMEs with specific reference in South Africa.

Aims and objectives

Aims: The paper seeks to examine the understanding and knowledge of digital marketing, use and its implications on the marketing strategies of rural South Africa, with specific reference to KwaZulu – Natal.

Objectives

- To establish rural SMEs owners/managers are understanding and knowledge of digital marketing strategies in KZN;
- To assess the extent they use digital marketing to promote their brands in KZN; and
- To find the implications of digital marketing on the rural SMEs brand popularity in KZN

2. Literature Review

Definition of Digital marketing: Clarke (2015) defines digital marketing as any activity that is carried out over the internet which aims to market products and services to identified target customer. This includes anything from email marketing, using website to attract new customers, content marketing or even using mobile platform or social networks. Wertime & Fenwick (2008) describe digital marketing as the future evolution of marketing, which happens when the majority or totality of a company's marketing, uses digital channels. Furthermore, digital marketing refers to the use of all kinds of digital and social media tools that allow companies to foster interactions with customers (Järvinen, Tollinen, Karjaluoto & Jayawardhena, 2012).

Understanding the relevance of digital marketing in survival and growth of rural SMEs: Wertime& Fenwick (2008) stress that the shift from mass broadcast to digital, one-to-one media means that the traditional advertising algorithm of building brand image primarily through paid reach and frequency must be re-thought. The SMEs owner/managers should understand the important of internet in the business growth as it enable greater access to markets, advice and guidance, marketing opportunities and cost savings than previously feasible (Young, 2013). Clarke (2015) maintains that since the digital marketing landscape is changing all the time and this is where smaller businesses definitely have the upper hand because they have the flexibility to change more easily and adapt to their surroundings. Digital marketing consists of measures and activities to promote products and services and build relationships with customers over the internet (Kotler, 2010: 493).

Growth of digital marketing in rural South Africa: It has been indicated that even although digital and media within South Africa has been on the rise, the bone of contention is still the digital divide. These uncapped free Wi-Fi and a high mobile penetration in many establishments and homes, the rural population of South remains disconnected and may continue to be some for some time due to the overarching socio – economic problems that face majority of population (Swanepoel, 2013)

The benefits of digital marketing for SME businesses : The e agency (2015) points that digital marketing relies on strategies that work well across the internet and mobile devices for businesses with big plans and small budgets that has many benefits such as cost-effective, real-time results, building more engaging relationships and it is easy to measure results.

Barriers to the use of digital marketing by South African rural SMEs: Cruz & Fill (2008) mention technology incompatibility with target markets, lack of knowledge, stakeholder unreadiness, technology disorientation and technology perception as the major impediments towards the non-adoption of e-marketing. These sentiments echoed by Järvinen, Tollinen, Karjaluoto & Jayawardhena (2012), the firms lack the human resources and know how to make the most of opportunities provided by the developing digital environment. In particular, the lack of control of marketing messages and their distribution is considered a major risk when using social media tools as part of the digital marketing mix (Cruz & Fill, 2008). However, the difficulty of determining return on investment (ROI) has been noted as one of the major barriers to investing in digital marketing (Marshall, Sor & McKay, 2000). The disadvantages of digital marketing include lack of personal contact, security and privacy (Bostanshirin, 2014).

3. Methodology

The study was conducted in different rural places in rural KwaZulu – Natal areas, which include north and south of province of KwaZulu–Natal. A comprehensive literature was conducted and used as sources of questionnaire formulation. 134 SMEs were asked to complete 10 page questionnaires to get empirical data for this survey. A Closed – ended questionnaire with 5 likert scale were distributed to the SMEs

owners/managers business premises with the aid of research assistants. Prior appointments were made through telephone. The respondents were giving 14 days to complete questionnaire. Data was purely quantitative, and it was analysed by the use of Statistical Package for the Social Sciences (SPSS) program (version) 22 to test the significance of the results and later presented in the tables.

Table 1: Summary of key questions

Research area	Questions
Knowledge and understanding of Digital marketing	**Digital marketing define as** : *Alternative response:* The promotion of products or brands that use one or more forms of electronic media; Advertising mediums that use electronic; marketing strategy of a business that include electronic; Internet marketing; all promotional efforts that include internet, social media, mobile phones, and electronic billboards, television and radio channels.
Use of digital marketing	**The use of digital marketing depends of the availability of :** *Alternative response:* communication services; financial resources; Broad band services; Relevant skills and knowledge; internet marketing skills.
Benefits of digital marketing	**Business benefits from the following for using Digital marketing:** *Alternative response:* business reaches more customers; business brand popularity increases; business get more customer referrals; business sales volume increases; business maintains customer loyalty.
Factors contributing to the use of Digital marketing	**The following factors affect the use of Digital marketing :** *Alternative response:* social factors; economic factors; Technology factors; political factors; legal factors.
Attitude of Digital marketing	**SMEs attitude of Digital marking is:** Alternative response: Internet very expensive; too much time required for Internet; business can do without; Internet marketing needs special skills.
Methods of Digital marketing	**Most used Digital marketing methods are:** *Alternative response*: Email marketing; Social media; Text messaging; Viral marketing; Affiliate marketing
Implications of Digital marketing	**SMEs in rural places increase their brand popularity through the use of Digital marketing.** *Alternative response:* Minimize costs; promote brand; reduce advertising costs.

4. Research findings

Table 1: Knowledge and understanding of Digital marketing

Variable	Frequency	Percentage
The promotion of products or brands that use one or more forms of electronic media	17	13 %
Advertising mediums that use electronic	10	8 %
Marketing strategy of a business that include electronic	7	5 %
Internet marketing	70	52 %
All promotional efforts that include internet, social media, mobile phones, and electronic billboards, television and radio channels	30	22 %

As shown in table 1, 17(13 percentage) of respondents state digital marketing as the promotion of products or brands that use one or more forms of electronic media. 10(8 percentage) indicate it as advertising mediums that use electronic. 7(5 percentage) define it as marketing strategy of a business that include electronic. While large number of respondents 70(52 percentage) indicated it as Internet marketing, followed by 30(22 percentage) mention it as all promotional efforts that include internet, social media, mobile phones, and electronic billboards, television and radio.

Table 2: Use of digital marketing

Variable	Frequency	Percentage
Communication services	7	5%
Financial resources	80	60%
Broad band services	13	10%
Relevant skills and knowledge	23	17%
Internet marketing skills	11	8%

The results, as shown in table 2, indicate that 7(5 percentage) of respondents said use of digital marketing limited by lack of communication services. 80(60 percentage) indicated that financial resource is the problem to the use of digital marketing. 13(10 percentage) indicate broad band services as the challenge for the use of digital marketing. 23(17 percentage) show relevant skills and knowledge as a problem for the use of digital marketing. While 11(8 percentage) indicated availability of internet as a problem.

Table 3: Benefits of digital marketing

Variable	Frequency	Percentage
Business reaches more customers	98	73%
Business brand popularity increases	8	6%
Business get more customer referrals	15	11%
Business sales volume increases	8	6%
Business maintains customer loyalty	5	4%

The results, as indicated in table 3, illustrate that 98 (73 percentage) of the respondents believe that business researches more customers by the use of digital marketing. While on the other hand very few respondents highlight other benefits such as business brand popularity increase, business gets more customer referrals, business sales volume increases, and business maintains customers' loyalty.

Table 4: Factors contributing to the use of Digital marketing

Variable	Frequency	Percentage
Social factors	10	7%
Economic factors	67	50%
Technology factors	40	30%
Political factors	10	7%
Legal factors	7	5%

Table 2 shows that economic factors 67(50 percentage) and 40(30 percentage) respondents believe they are the most factors contributing to the use of digital marketing. While other factors indicated to be contributing very little to that effect.

Table 5: Attitude of Digital marketing

Variables	Frequency	Percentage
Internet very expensive	78	58%
Too much time required for Internet	15	11%
Business can do without	20	15%
Internet marketing needs special skills	21	16%

The result, as indicated in table 5, illustrate that 78 (58 percentage) respondents indicated that Internet very expensive. Too much time required for Internet, business can do without and Internet marketing needs special skills have less attitude of digital marketing.

Table 6: Methods of Digital marketing

Variable	Frequency	Percentage
Email marketing	23	17%
Social media	65	49%
Text messaging	30	22%
Viral marketing	10	8%
Affiliate marketing	6	5%

Table 5 shows that social media 65(49 percentage) and 30(22 percentage) are the most methods of digital marketing used. While other methods account less percentages.

Table 7: Implications of Digital marketing

Variable	Frequency	Percentage
Minimize costs	11	8%
Promote brand	45	34%
Reduce advertising costs	78	58%

As shown in table 7, most respondents indicate that 78(58 percentage) reduce advertising costs and 45(34 percentage) promote brand. Very few 11(8 percentage) indicate that digital marketing minimize costs.

Limitations: this study did not cover large number of the respondents. Therefore, generalization of these results should be done with care. Due to the complexity of South African geographical profile, further research needs to be done to cover more entrepreneurs**.**

Research implications: The findings of this study revealed that large numbers of respondents do not have clear knowledge and understanding of digital marketing and how it can benefit their business popularity. Therefore, the practical implications of this study will benefit all South African entrepreneurs and potential entrepreneurs.

5. Conclusion

Based on the findings, this study concludes that there are negative perceptions of Internet marketing being expensive and there is the feeling among respondents that digital marketing needs special skills**.**

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ICT Adoption and Economic Growth Nexus: Evidence from Leading African Economies

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Abstract: This paper examines the impact of information and communication technology (ICT) on output growth in Nigeria, South Africa, Egypt, Algeria, Morocco, Libya, Sudan, Kenya, and Ghana. We use annual data on GDP (PPP) to proxy economic growth whilst internet users, mobile phone users, telephone users, personal computers users, and school enrolment (tertiary) covering from 1990 – 2013 were used to proxy ICT. The data were analysed in a dynamic panel environment using the 2SLS method. The robustness of the 2SLS result was confirmed by the GMM regression. The results imply a positive relationship between ICT and economic growth in accord with earlier studies. Few of the earlier studies investigate the causality aspect of the relationship and the few that did use ICT directly without resolving it into its sub-variables as done in this study. The Granger causality test results indicate that only fixed wireless communication system Granger cause GDPPPP out of the five predictors suggesting that the other ICT predictors merely associate with GDP not necessarily Granger cause it as most of the earlier studies erroneously suggest. The policy implication is that the affected countries should give policy priority to development of ICT infrastructure with specific emphasis on the fixed wireless communication system as precursors for ensuring sustainable growth in the medium and long - term.

Keywords: *ICT, Economic Growth, Fixed wireless Communication, Global System of Mobile, Enrolment, Personal Computers, African Economies*

1. Introduction

Experience in relation to growth has taken diverse direction across countries at different points in times. The growth experience has been that of revival and slump even among the developed countries. For example, during the 1990s the Japanese economy which has been praised by many in the 1980s suddenly became comatose while at the same time the US economy that has continued to show downward trend for over twenty years arising from the first oil shock of the 1980s became transformed into "a new economy" with high growth rates, reduced inflation rates, reduced unemployment rates, and reduced interest rates. This phenomenal occurrence led to a widening gap in the growth rates between the US and other developed countries during the 1990s. Consequently, the GDP per capita of OECD countries in 1982 was estimated to be 78% of that of the US but in 2000, the figure dropped to 71%. In view of this development, the growth rate of the US economy was comparatively faster than that of other developed countries in the 1990s. The source of the growing gap in growth rates of the US economy compared to that of other developed economies in the 1990s has been critically examined by researchers albeit without coming to a convergent point (Aghion and Howitt, 2006; Conway, De Rosa, Nicoletti and Steiner, 2006; Gust and Marquez, 2004; Nicoletti and Scarpetta, 2003). Further studies draw attention to ICT as the principal source of the widening growth gap between the US and other developed countries (Colecchia and Schreyer, 2001; Timmer, Ypma and van Ark, 2003).

These studies argue that unequal dissemination of ICT across various nations give rise to a digital divide which explains the observed variation in the growth rates across the various developed countries. This is because countries that are able to exploit economic opportunities provided by the new technology better than others are bound to grow faster than those countries that are unable to exploit the economic opportunities as much owing to the digital divide. By this rationale, countries such as America, Finland and Ireland who were able to take full advantage of the economic opportunities offered by the ICT in the 1990s were seen to show superior results in economic growth when compared with other developed countries. Contrariwise, the Nobel laureate economist, Solow (1987) once cited the infamous productivity paradox of the US economy wherein he purported that productivity stagnated despite increasing computing power. He posited consequently that increasing computing power does not guarantee productivity increase. Much of the early researches of the 1970s and 1980s also buttressed Solow's position on the productivity paradox. To refute the productivity paradox, recent studies in reviewing the paradox produce a wide range of explanations which include: mis-measurement of outputs and inputs and lags due to learning and

adjustments as well as flaws in methodological frameworks and measurement errors. Further, the main benefits of using computer such as improved quality, timeliness, and customisation were not properly measured in official productivity statistics (Brynjolfsson, Malone, Gurbaxani and Kambil, 1994). Further, in disputing the productivity paradox, authors of recent studies have attributed the change in the direction of findings to improved data quality, and a new econometric framework that give rise to a more logical and credible empirical results (Lichtenberg, 1995; Diewert and Smith, 1994; Gurbaxani, Melville and Kraemer, 1998).

While several authors have noted positive evidence of returns from ICT at the firm and industry level, contrary is the case at the aggregate level wherein studies remain inconclusive as they have suffered from diverse limitations either methodologically as in the case of the study of Solow (1987) whose study suffered a mis-measurement of outputs and input amongst other limitations. The limitation of some others is analytical in the case of Pohjola (2002) who in his estimation did not cater for fixed and random effects of the data considering the time frame covered by his study as well as individual country peculiarity. In some others the limitation is with respect to inappropriate data which may arise as a result of variation in growth accounting techniques of specific countries giving rise to variations in estimations of individual country's data collection offices. Earlier studies have focussed extensively on researching into effect of ICT at the micro level (Brynjolfsson, Malone, Gurbaxani and Kambil, 1994; Quah, 2002; Stiroh, 2002; Jensen, 2007; O'Mahony and Vecchi, 2005). These studies have found a positive link between ICT adoption and productivity growth at the firm or industry level. Other studies investigating effect of ICT on growth at macro level has been targeted at developed countries (Jorgenson and Stiroh, 2000; Jorgenson, 2001; Oliner and Sichel, 2000 (for the US), Oulton, 2002 (for the UK), Jalava and Pohjola, 2002 (for Finland), Jorgenson and Motohashi, 2005 (for Japan), Colecchia and Schreyer (2001), Van Ark, Melka, Mulder, Timmer and Ypma (2002), Daveri (2002), and Timmer, Ypma, and Van Ark (2003) for EU economies; and Jorgenson (2003) for the G7 economies; Jorgenson and Vu (2007) for 110 countries.

These studies employ the growth accounting technique to estimate the contribution of ICT to economic growth. It should be noted however, that the reliability of the findings of such technique is good to the extent of the reliability of the data on which he analysis is based. This is a considerable challenge considering the variation in growth accounting technique estimation of contribution of ICT to economic growth across countries. Moreover, other studies which investigated the impact of ICT on economic growth include that of Waverman, Meschi and Fuss (2005) who investigate the impact of ICT on economic growth of 21 OECD countries over a period of twenty years (1970 – 1990) and reported a significant causal relationship between investment in telecommunication infrastructure and economic growth. Similarly, Jacobsen (2003) and Waverman, Meschi and Fuss (2005) both find a significant positive relationship between mobile phones usage and growth. In the same vein, Thompson and Garbacs (2007) in their analysis of panel data of 93 countries covering 1995 – 2003 find that penetration rates of telecommunication services improves growth. Further, Seo, Lee and Oh (2009) analysing panel data covering 29 countries in the 1990s show that investment in ICT has positive impact on GDP growth and not vice versa. In addition, Gruber and Koutroumpis (2010a) using panel data from 192 countries from 1990 – 2007 find significant contribution of mobile telecommunication on GDP growth. Also, Koutrompis (2009) in the application of Roller and Waverman model (2001) for investigation of ICT on growth in 22 OECD countries covering 2002 – 2007 find that broadband penetration has a significant causal relationship with economic growth.

These studies although made use of cross country regression technique in their estimation. None of them employed the Granger-causality estimation to validate their findings. Further, while majority of the earlier studies focussed on developed countries, the few that are directed at developing countries are limited by scope of their coverage of the indicators of ICT indicators. Besides, none of the studies have come up with a model to explain the extent to which each of the ICT indicators contribute to growth. In view of the limitations of the earlier studies as outlined above, the study contributes methodologically to existing knowledge by resolving ICT into its sub-variables for the investigation; the analytical contribution of this study is in its catering for both fixed and random effects in the estimations as well as the investigation of causality and its direction amongst the study variables and sub-variables. The study made use of panel data of ten leading African economies covering from 1990 – 2015 sourced from the World Bank database.

2. Literature Review

Pursuant to the dictate of total factor productivity theory as well as the resource based view, the interest of researchers in investigating the relationship (if any) between ICT and growth both at the micro as well as the macro level has been heightened. UNDP (2001) in its development report attempt to qualify how technology especially ICT is enabling development effects. The report presented the association between technology and human development from the perspective that given that technological innovation enhances human capabilities – such as healthy lifestyle, knowledge, creativity, and participation in the social, economic, and political life of a community – and also impacts on economic growth through productivity gains. At the same time, human capabilities are an important means of achieving technological innovation. The report concluded that technology innovation and development are mutually reinforcing, creating a virtuous cycle. Abubakar and Tasmin (2012) in their investigation of the effect of ICT on performance of Nigerian banks using a panel data set spanning over 2001 to 2011 period obtained from the Nigerian Stock Exchange Fact book. The data was analysed using a combined techniques including the panel unit root (to affirm stationarity), panel cointegration to Fully Modified Ordinary Least Square and Generalised Method of Moments. The study finds a positive impact of ICT on banks performance.

Sanders (2007) in his study investigating the impact of e-business technologies on organizational performance argue that organizational collaboration, the foundation of supply chain management has been positively impacted by ICT. Meanwhile, organizational collaboration and information sharing in turn are expected to improve organizational performance. Thus the study proposes and tested a model of the relationship between organizational use of e-business technologies, organizational collaboration, and performance. The findings of the study reveal that use of e-business technologies impact performance both directly and indirectly by promoting both intra- and inter firm collaboration. At the macro level, recent studies have shown remarkable interest in the investigation of the capability of ICT to impact on economic growth. Many of these studies have been focussed on the developed countries perhaps due to relatively more readily available data. Khuong (2011) investigated ICT as a source of economic growth in the information age. The study highlights three channels through which ICT penetration can affect growth namely: fostering technology diffusion and innovation, enhancing the quality of decision making by firms and households, and also by increasing demand while keeping production costs minima. These three activities made possible by ICT adoption consequently culminate in increase in output level. The study made use of cross – sectional regression techniques to assess the effects of ICT on economic growth using a list of 102 countries across the globe. The paper investigates the causal link of ICT on growth using panel data of 102 countries obtained from World Development Indicator dataset for a ten year period from 1996 – 2005 during which ICT penetrate across countries.

Considering the number of countries involved, country fixed effect was introduced in the regression to remove country biasedness from the results obtained. This inclusion was found also to increase the R – squared significantly. The study finds that ICT penetration enhances growth with varied robustness of respective explanatory variables covered by the study. The study however ever failed to introduce impulse – response analysis to estimate the effects of the shocks that the world economy suffered during the period covered by the study. The study also did not introduce random effect to address the variability of the sampled countries with respect to size, structure, and features peculiar to the respective countries covered. Moreover, the study also would have incorporated the Granger causality test to affirm its findings. Further, Pohjola (2001) applied an augmented version of the neo – classical growth model to infer the contribution of ICT to growth in a list of 39 countries covered by his study. He was however unable to find evidence for a positive contribution of ICT to growth in the 39 countries but was able to prove the association of ICT with growth in a smaller sample of 23 OECD countries from his study. Other studies also find inconclusive evidence on the growth effect of investment in ICT. Dewan and Kraemer (2000) in their analysis of panel data set of 36 countries covering 1985 – 1993 find that returns from IT are positive and significant for the developed countries in the sample but not statistically significant for the developing ones.
Similarly, Jacobsen (2003), using data from 84 countries covering a ten year period from 1990 – 1999 find no significant growth effect arising from computer penetration although it confirm a significant positive link between mobile phones and growth in the countries covered by the study. These inconclusive findings coupled with observed limitations of the studies reviewed calls for further inquiry into the effect of ICT

penetration on growth at the macro level particularly in the developing countries using more current dataset. Colecchia and Schreyer (2002) study investigates ICT investment and economic growth in nine OECD countries. The study compares the impact of information and communication technology (ICT) capital accumulation on output growth in Australia, Canada, Finland, France, Germany, Italy, Japan, the United Kingdom, and the United States over the period of 1980 – 2000.

The study find that regardless of country differences, output growth in all the countries steadily grows though at different rates over the period covered by the study signalling to the fact that the United States has not been alone in the reaping of the benefits from the positive effects of ICT capital investment on economic growth nor was the United States the sole country to experience an acceleration of these effects.

The study argue that beyond increased or improved use of labour and capital, or through a rise in multi – factor productivity, ICT has been found to be the new factor driving growth in several economies both at the micro or at the macro level. The major limitation of the study however is its failure to resolve ICT into its various components with a view to ascertaining the relative contribution of each of the identified components to overall growth. Leaning on the outcome of an intensive consultation process by the Partnership on Measuring ICT for Development held in Geneva in the year 2005, this study identify Personal Computers (PC), Global System of Mobile (GSM), Fixed wireless communication system, and Internet users as ICT basic core indicators. Other ICT indicators categorised as extended core are school enrolment and population share.

ICT penetration: The extent of ICT diffusion in each country is proxied by the penetration (per 100 inhabitants) of the indicators of measurement which are "personal computers", "mobile phones", "telephones", and "internet users". These are captured in the study as ICT_PC, ICT_MP, ICT_TP, and ICT_IU respectively.

Personal computers: Schreyer (2002) in his study investigating computer price indices and international growth and productivity comparisons argue that for several OECD countries where expenditure on computers is treated as a durable good for households or investment goods for organizations is found to culminate in GDP growth. Another study by Oulton (2002) adopting the growth accounting approach investigates the contribution of computer to both aggregate output as well as to aggregate input. The study reveals that on both counts, the contribution of ICT has been rising over time. This was further confirmed by the reduction in the growth rate of the UK compared to that of the US in the second half of 1990s owing to the reduction in the investment of UK in ICT compared to the US during that period.

Mobile phones: In their study of mobile phones and economic development in Africa, Mbiti and Acker (2010) noted that mobile phones subscription in Africa has increased from 16 million in the year 2000 to 376 million by the year 2008 (2,250% increase!). Further, the study argue that mobile phones can contribute to growth in several ways which include: by improving access to and use of information at considerably reduced costs thereby improving coordination among agents and increasing market efficiency, improved firms' productive efficiency by improving their supply chain management, mobile phones create new jobs to address demand for mobile-related services thereby enhancing income generating opportunities both in rural as well as in urban areas, it reduces household risks by facilitating communication among social networks in response to shocks, it also facilitates delivery of financial, agricultural, health, and educational services. These findings were also corroborated by other similar studies (Muto and Yamano, 2009; Kloner and Nolen, 2010).

Fixed wireless communication system: The role of telephone in economic growth has attracted the interest of researchers over the years. Many previous studies in this regard were born out of curiosity as to if and how use of telephones has effect on economic growth. Hardy (1980) analysed data for 60 nations over the period of eight years (1968–1976) and find strong evidence indicative of significant contribution of telephones usage to economic development. In another study, Roller and Waverman (2001) using data on 21 OECD countries over a period of 20 years (1970–1990) find a significant and positive causal relationship between investment in telecommunication infrastructure and subsequent economic performance. A host of other similar studies further affirm the positive relationship between telecommunication and economic growth (Meschi and Fuss, 2005; Thompson and Garbacz, 2007; Gruber, and Koutroumpis, 2010; Koutroumpis, 2009).

Internet usage: The issue of relationship between the internet and growth has been a subject of rigorous debate among researchers. There has been a considerable controversy over how and if the internet has any contribution to economic growth. Litan and Rivlin (2001) find that the internet improved management

efficiency of the US firms by improving communication between the firms and their suppliers through an efficient supply chain management system. Further empirical studies suggest that internet usage lowers search costs which following search theory culminate in better performance and economic growth (Mbiti and Aker, 2010; Baye, Morgan and Scholten 2007; Aker, 2008).

School enrolment (tertiary): This is the gross tertiary enrolment rate. It is a reflection of the country's average quality of human capital which in turns determines the extent to which ICT can be exploited for maxima benefits. It was similarly used in a recent study by Vu (2011) that investigates ICT as a source of economic growth in the information age. Robinson and Crenshaw (2010) in their study analysing 74 countries from 1995 – 1999 came up with findings that suggest that development level, political freedom, and education were the most significant drivers of ICT adoption. Other studies also identified education (particularly tertiary) as a pedestal through which the potentials of ICT to influence economic growth can be harnessed. Seo, Lee, and Ho (2009) in their study aimed at answering the question: Does ICT investment widened the growth gap identify education as a necessity for enhancement of productivity. The authors argue that without adequate education and training, the exploitation of benefits of ICT for enhancement of productivity cannot be achieved. Further, Weber and Kauffman (2011) posit that education is one of the factors that influence ICT adoption. Arguably, ICT adoption is significantly influenced by education as the ability to learn and use ICT increases with education. Individuals with little or no education are generally challenged in their use of ICT when compared with those with appreciable level of education. The next variable to be discussed is t the GDP – the dependent variable of the study.

GDPPPP: The gross domestic product on the basis of purchasing power parity (GDP PPP) is the equivalent of the gross domestic product having been converted to international dollars using purchasing power parity rates and divided by the total population. The value of an international dollar is the purchasing power the dollar has over GDP as a US dollar has in the United States. PPPs can be expressed in the currency of either of the countries. The purpose is to determine the relative values of different currencies. This approach of GDP estimation will be used in this study for purposes of easy comparisons. Similar approach was adopted by Seo, Lee, and Oh (2009) in their study titled "Does ICT investment widen the growth gap?"

3. Data and Methodology

Data for the study were obtained from the Word Bank Data base of the African Development Indicators. The population of the study comprise of top ten economies in sub Saharan Africa in the context of their respective GDP which represents the market value of all final goods and services from each of the nations in a given year. This record based on the 2014 data from the World Economic Outlook by the International Monetary Fund is as computed in table 1:

Table 1: LIST OF TOP TEN AFRICAN ECONOMIES (GDP)

S/N	CONTRY	GDP est ($billions)
1	Nigeria	657.218
2	South Africa	352.528
3	Egypt	324.267
4	Algeria	227.802
5	Angola	131.407
6	Morocco	112.552
7	Sudan	70.030
8	Kenya	62.722
9	Ethiopia	49.857
10	Libya	49.341

Source: IMF World Economic Forum, 2013

Data for the study covering from 1990 to 2013 were obtained from the 2014 data of the World Economic Outlook by the International Monetary Fund. Angola was however exempted from the analysis due to lack of ICT_PC data for the period. The data retrieved from the record comprises of GDP (PPP): This captures the totality of the gross domestic product converted to international dollars using purchasing power parity.

ICT_PC: Which comprise of telecommunications, audio and video, computer and related equipment, electronic components, as well as other communication technology goods expressed as a percentage of total goods imports? ICT_IU: Refers to a measure of internet users – those people with access to the worldwide web. The estimate is per 100 people. ICT_MP: Is a measure of subscriptions to a public mobile telephone service that provides access to the PSTN using cellular technology expressed per 100 people. ICT_TP: Relates to the sum of active number of analogue fixed telephone lines. SCHENR: Captures the total enrolment in tertiary education regardless of age expressed as a percentage of the total population of the people having basic education.

Sample size and Sampling Technique: Since it is impracticable to include an entire study population in a research exercise (Asika, 2006), it becomes imperative to work with a sample drawn from the population. The study intends to work with nine African economies. The rationale for selecting the countries sampled for the study is underpinned partly due to the fact that they are the leading economies in Africa, and also considering that data for the study are available for these countries.

4. Data Analyses

The data was subjected to pre-estimation diagnostic tests to inform necessary treatment decisions. To verify the integration order of the series, the Levin, Lin, and Chu Panel Unit Root test is conducted. The test results (Tables 2–5) show that the variables are not integrated in the same order. All the variables became stationary after first differenced but two (ICT_IU& ICT_MP) which became stationary after the second difference. This observation from the panel unit root test results informed the decision to adopt orthogonal deviation in the estimation to correct for these effects.

Table 2: DESCRIPTIVE STATISTICS

	GDPPPP	ICT_IU	ICT_MP	ICT_PC	ICT_TP	SCHENR
Mean	7717.222	7.422924	29.37693	4.985384	5.081246	16.36864
Median	5237.969	1.017470	2.585972	4.125411	3.802297	12.19681
Maximum	30261.14	56.00000	180.4453	16.21698	20.33403	68.71934
Minimum	1859.918	2.30E-05	6.71E-05	1.038747	0.207664	0.698346
Std. Dev.	6660.527	12.17355	42.51956	2.369610	4.830178	15.66061
Skewness	1.556623	2.141276	1.460568	1.406694	0.816618	1.813667
Kurtosis	4.832612	7.189859	4.282590	5.410144	2.606011	5.974308
Jarque-Bera	117.4570	323.0566	91.60263	123.5156	25.40416	198.0366
Probability	0.000000	0.000000	0.000000	0.000000	0.000003	0.000000
Sum	1666920.	1603.352	6345.417	1076.843	1097.549	3535.625
Sum Sq. Dev.	9.54E+09	31861.98	388701.2	1207.237	5016.084	52729.78
Observations	216	216	216	216	216	216

Source: Authors' computation

From the table 2 above, the descriptive statistics indicate that the data set exhibit some degree of asymmetry. The SD for example reveals that the data for ICT_PC is more clustered around the mean whilst that of GDPPPP widely dispersed from the mean. The Skewness which measures the symmetry of the data set indicates an appreciable symmetry in the data set. The nearer to zero the Skewness value is the more symmetrical is the data set. With the exception of ICT_TP, all the other study variables are leptokurtic. The highly significant p-values however suggest some appreciable degree of conformance to the normality requirement. Thus presupposes applicability of rigorous analytical techniques.

Table 3: PANEL UNIT ROOT TEST OF THE STUDY VARIABLES

VARIABLE	STATISTIC				Prob.	DIFFERENCING
	L.L.& C	I.P. & S	ADF	PP		
GDPPPP	-3.91101	-4.64993	71.9311	89.9072	0.000	1st Difference
ICT_IU	-6.74538	-9.62038	143.945	611.466	0.000	2nd Difference
ICT_MP	-10.2463	-10.7815	138.146	243.968	0.000	2ndDifference
ICT_PC	-13.4976	-12.6443	150.994	246.849	0.000	1st Difference
ICT_TP	-3.69314	-5.61452	69.8376	65.3895	0.000	1st Difference
SCHENR	-9.20081	-7.91668	89.5076	89.4764	0.000	1st Difference

Source: Authors' computation

The panel unit root test conducted (using Levin, Lin, and Chu; ImPesaran and Shin W-stat; ADF Fisher Chi-square as well as PP techniques) on each of the study variable reveals that the data set is not stationary. Hence, has to be considered in the choice of analytical technique to be adopted for the data set.

The above table also reveals the order of integration of the study variables. The outputs of the differencing column indicate that the variables do not integrate at the same order. This needs to be considered in the choice of appropriate environment for the panel regression. Hence the adoption of two stage least square and panel GMM EGLS methods of regression. The above descriptive statistics as well as the pre-estimation diagnostic outcome informed the adoption of the 2STLS corroborated with the panel GMM EGLS regression techniques for the data analyses. The results are as reflected in tables 4 and 5.

Table 4: 2SLS PANEL REGRESSION (1990 – 2013) DEPENDENT VARIABLE GDPPPP

Variable	Coefficient	t-Statistic	Prob/ Std. Error
ICT_IU	-75.862622	-2.415987	(31.40026)**
ICT_MP	2.673572	0.271610	(4.433101)
ICT_PC	74.55008	1.278230	(58.32289)
ICT_TP	219.7844	4.083499	(53.82257)***
SCHENR	-22.24270	-1.132985	(19.63194)
C	6128.406	18.02794	(339.9394)***

NB: Robust standard errors are in parentheses, p<0.01 (***), p<0.05 (**), p<0.1 (*).

Table 5: PANEL GMM EGLS (Cross section random effects) Regression (1990 – 2013) Dependent Variable: GDPPPP

Variable	Coefficient	t-Statistic	Prob/ Std. Error
ICT_IU	46.46143	2.359576	(19.69058)**
ICT_MP	6.395838	0.974486	(6.563296)
ICT_PC	8.329344	0.124898	(66.68914)*
ICT_TP	158.5214	2.387457	(0.0180)**
SCHENR	47.57530	2.169711	(21.92702)**
C	5558.698	10.56585	(5261006)***

NB: Robust standard errors are in parentheses, p<0.01 (***), p<0.05 (**), p<0.1 (*).

The results obtained from the 2STLS were corroborated by those of the panel GMM EGLS (cross section random and period fixed effects). The results suggest that economic growth is significantly influenced by ICT_TP (fixed wireless phone), SCHENR (school enrolment), ICT_IU (internet users) and ICT_PC (personal computers) in that order with the highest level of influence coming from ICT_TP usage of fixed wireless communication system. These analyses were at the aggregate level (all sampled countries combined). For comparative purposes, each of the sampled countries was also subjected to same analyses and the results were as obtained hereunder.

Table 6: COUNTRY SPECIFIC ANALYSES (ALGERIA)

Variable	Coefficient	t-Statistic	Prob/ Std. Error
ICT_IU	42.46654	0.476320	(89.15556)
ICT_MP	11.06846	1.781450	(6.213177)*
ICT_PC	233.9915	5.845190	(40.03147)***
ICT_TP	90.33794	0.775221	(116.5318)
SCHENR	56.71110	1.093820	(51.84684)
C	7734.519	7.631525	(1013.496)***

Source: Authors' computation

Table 7: COUNTRY SPECIFIC ANALYSES (EGYPT)

Variable	Coefficient	t-Statistic	Prob/ Std. Error
ICT_IU	-21.74778	-3.676385	(5.915533)***
ICT_MP	33.65820	14.74142	(2.283240)***
ICT_PC	-72.08326	-1.211084	(0.2415)
ICT_TP	117.8561	25.35494	(4.648249)***
SCHENR	57.57205	18.71173	(3.076790)***
C	5118.534	22.78813	(224.6141)***

Source: Authors' computation

Table 8: COUNTRY SPECIFIC ANALYSES (GHANA)

Variable	Coefficient	t-Statistic	Prob/ Std. Error
ICT_IU	8.224966	0.610009	(13.48336)
ICT_MP	5.726869	2.164147	(2.646248)**
ICT_PC	-61.62319	-3.291226	(18.72348)***
ICT_TP	131.5307	2.593564	(50.71429)**
SCHENR	89.24673	3.222817	(27.69215)**
C	2012.320	39.50786	(50.93469)***

Source: Authors' computation

Table 9: COUNTRY SPECIFIC ANALYSES (KENYA)

Variable	Coefficient	t-Statistic	Prob/ Std. Error
ICT_IU	2.869773	1.434058	(2.001156)
ICT_MP	8.017545	6.265692	(1.279595)***
ICT_PC	-13.56838	-0.925682	(14.65771)
ICT_TP	-70.16934	-2.399360	(29.24503)**
SCHENR	-74.42290	-3.027311	(24.58383)***
C	2459.619	28.50542	(86.28601)***

Source: Authors' computation

Table 10: COUNTRY SPECIFIC ANALYSES (LIBYA)

Variable	Coefficient	t-Statistic	Prob/ Std. Error
ICT_IU	-580.4506	-1.121519	(517.5573)
ICT_MP	52.27645	1.426011	(36.65922)
ICT_PC	3375.695	1.218536	(2770.288)
ICT_TP	689.3608	2.186451	(315.2875)**
SCHENR	-213.1192	-1.938082	(109.9640)*
C	13087.42	2.235226	(5855.079)**

Source: Authors' computation

Table 11: COUNTRY SPECIFIC ANALYSES (MOROCCO)

Variable	Coefficient	t-Statistic	Prob/ Std. Error
ICT_IU	-10.17636	-0.865080	(11.76349)
ICT_MP	33.27438	7.818805	(4.255687)***
ICT_PC	28.81513	0.728954	(39.52941)
ICT_TP	13.91110	0.308885	(45.03653)
SCHENR	-121.6742	-2.899028	(41.97069)*
C	5175.159	9.624343	(537.7156)***

Source: Authors' computation

Table 12: COUNTRY SPECIFIC ANALYSES (NIGERIA)

Variable	Coefficient	t-Statistic	Prob/ Std. Error
ICT_IU	-78.51666	-1.761823	(44.56558)*
ICT_MP	65.83867	3.167069	(20.78851)***
ICT_PC	-21.76634	-1.030909	(21.11374)
ICT_TP	228.6819	0.789520	(289.6468)
SCHENR	59.34917	1.547808	(38.34402)
C	2541.219	13.97392	(181.8543)***

Source: Authors' computation

Table 13: COUNTRY SPECIFIC ANALYSES (SOUTH AFRICA)

Variable	Coefficient	t-Statistic	Prob/ Std. Error
ICT_IU	-23.54781	-7.174484	(3.282161)***
ICT_MP	28.32719	15.28939	(1.852735)***
ICT_PC	-124.2492	-3.708254	(33.50612)***
ICT_TP	79.32691	1.446442	(54.84278)
SCHENR	-42.16408	-0.795659	(52.99262)
C	10730.15	12.61502	(850.5854)***

Source: Authors' computation

Table 14: COUNTRY SPECIFIC ANALYSES (SUDAN)

Variable	Coefficient	t-Statistic	Prob/ Std. Error
ICT_IU	-10.14136	-0.498714	(20.33500)
ICT_MP	6.471888	1.217048	(5.317694)
ICT_PC	18.85534	3.310714	(5.695250)***
ICT_TP	-5.722765	-0.175669	(32.57693)
SCHENR	94.39230	7.604492	(12.41270)***
C	1674.458	28.00375	(59.79407)***

Source: Authors' computation

From the results of the country specific analyses in the tables 6 – 14, it is apparent that the effect of mobile phone is significant on economic growth at 0.01 levels for Egypt, Kenya, Morocco, Nigeria, and South Africa but significant at 0.05 and 0.1 levels for Ghana and Algeria respectively. The influence of personal computers on economic growth is significant at 0.01 levels for Algeria, Ghana, South Africa, and Sudan. The effect of internet on economic growth is significant at 0.01 levels for Egypt and South Africa but significant at 0.1 level for Nigeria. Fixed wireless phone usage effect on economic growth is significant at 0.05 levels for Ghana, Kenya, and Liberia but significant at 0.01 level for Egypt. We find the effect of school enrolment on economic growth to be significant at 0.01 for Egypt, Kenya, and Sudan whereas, it is significant at 0.05 level for Ghana and at 0.1 level for Liberia and Morocco. It is interesting to note from the results that school enrolment has a significant effect on economic growth for all the countries studied with the exception of Algeria, Nigeria, and South Africa. The five predictors of economic growth have varying levels of effect on the explained variable. The results suggest that different countries have to undertake proactive measures to revamp the various predictors of economic growth whose effect is either outright nil nor insignificant. This step will culminate in

boosting the economic performance further for the respective countries. Finally, we proceed to the causality test between ICT indicators and economic growth. The Granger causality test results in table 15 reveal that only the fixed wireless communication system Granger cause GDPPPP. It is interesting to note that the causality of ICT_TP and GDPPPP is bidirectional at 1% significance level. Apart from ICT_TP, no other ICT indicator Granger cause GDPPPP at 1% (not even at 5 %!). As can be supported by theory, the results also suggest that GDPPPP Granger cause school enrolment but not vice versa.

5. Discussion

This study finds that internet usage has a significant effect on economic growth. This aligns with the findings of Litan and Rivlin (2001) who find that internet usage improved management efficiency of the US firms by improving communication between firms and their suppliers through an efficient supply chain management and consequently boosting economic growth. Also, other similar studies support the argument that internet usage contribute to economic growth (Mbiti and Aker, 2010; ITU, 2009; Baye, Morgan, and Scholten, 2007; Aker, 2008). The finding that mobile phone usage also contribute to economic growth was buttressed by the findings of earlier researchers who find that mobile phone has a positive and significant influence on growth (Jacobsen, 2003; Waverman, Meschi, and Fuss, 2005; Garbacs, 2007). The contribution of mobile phone usage to economic growth can stem from different directions. Mobile phone is a potential source of income as it solves the problem of unemployment for some whose main business is rendering of mobile phone call services. This in its own way contributes to economic growth. Further, mobile phone usage has contributed immensely to reduction of search cost thereby making information available at a relatively cheaper rate for the information users. From theory, reduction in search cost translates to economic growth considering that it offers a form of cost reduction.

The significant influence of personal computers on growth agree with findings of other similar studies that support that personal computers do have a significant influence on growth. For instance, Jalave, and Phojola (2007) find a positive relationship between electricity and computer usage with economic growth of Finland. A similar study by Shahbaz and Rehman (2015) suggests the existence of a long run relationship between the variables of ICT, electricity consumption and growth and also that income growth increases electricity consumption in a non-linear relationship. Further, Dewan, and Kraemer (2000) affirm that returns from IT are positive and significant for the developed countries. The significant effect of telephone on economic growth correlate with findings of other studies maintaining that telephone has a significant effect on economic growth (Meschi, and Fuss, 2005; Thompson and Garbacz, 2007; Gruber, and Koutroumpis, 2010; Koutroumpis, 2009). On the issue of the positive and significant effect of school enrolment on growth, this result agrees with that of Robinson and Crenshaw (2010) and that of Weber and Kauffman (2011) who argue in favour of education as a driver of ICT adoption which in turn affect growth going by the efficiency labour theory which posit that technology adoption and diffusion has a great potential to enhance both efficiency and effectiveness of labour through diverse ways such as error reduction, increased speed of service delivery, etc.

The 2SLS and GMM results both establish the presence of a positive and significant relationship between the various explanatory variables with the explained variables. These tests however are not sufficient to suggest causality. This informed the decision to carry out the Granger causality test to reveal existence of causality and its direction with respect to the variables. The Granger causality test results indicate that only fixed wireless communication system Granger cause GDPPPP (at 1% level) out of the five predictors suggesting that the other ICT predictors merely associate with GDP but not necessarily Granger cause it as most of the earlier studies erroneously suggest. The policy implication is that the affected countries should give policy priority to development of ICT infrastructure with specific emphasis on the fixed wireless communication system as precursors for ensuring sustainable growth in the medium and long - term.

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Examining the Evidence of the Feminization of Poverty in Botswana

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Abstract: Poverty in Botswana is more pronounced in female-headed households (FHHs) especially those residing in rural areas where employment opportunities are limited. Similarly, the proportion of the FHHs to the total poor increased between 2002/03 and 2009/10. However, no study has so far analyzed whether feminization of poverty has occurred. This paper therefore, examines feminization of poverty in Botswana using the 2009/10 Botswana Core Welfare Indicator Survey and the 2002/03 Household Income and Expenditure Survey datasets. The results indicate no evidence of feminization of poverty (at both national and regional levels). However, the results reveal evidence of feminization of poverty amongst the married couples, the widowed, the divorced, the unemployed, those working in own farms and the self-employed. Therefore, public policy should focus on gender sensitive poverty alleviation strategies, with specific focus on the vulnerable FHHs, especially the divorced/separated and the widowed, in order to fully address the feminization of poverty amongst these groups.

Keywords: *Botswana; feminization of poverty; female headed households*

1. Introduction

The concept of feminization of poverty was first introduced by Diana Pearce in the early 1970s, when it was discovered that FHHs in the United States were growing at an alarming rate (Pearce, 1978). Feminization of poverty may be defined as a situation where women, especially FHHs, are concentrated amongst the poor. It may manifest as: (1) an increase of women amongst the poor or (2) an increase of FHHs amongst the poor households (Pearce, 1978). Some studies have modified these concepts to try and capture the changes in poverty differentials amongst men and women or FHHs and MHHs over time. For example, Northrop (1990), Pressman (1988) and Peterson (1987) defined feminization of poverty as an increase in the differential poverty between FHHs and MHHs while Wright (1992) and Fuchs (1986) defined feminization of poverty as an increase in the differential poverty between women and men. Moreover, in cases where poverty rates for both FHHs and MHHs have both declined over time and the decline was lower amongst women, it can be concluded that there has been feminization of poverty (Medeiros & Costa, 2008). These definitions capture changes in differential poverty over time, and recognize feminization of poverty as a process instead of a state.

Since its introduction, this concept has been widely investigated by both scholars and researchers (Aggrawal, 2012; Brady & Kall, 2008; Medeiros & Costa, 2008; Thibos et al., 2007; Moghadam, 2005; Chant, 2003; 1997; Fuwa, 2000; Bianch, 1999; Buvinic & Gupta, 1997; Wright, 1992; Northrop, 1990; Fuchs, 1986; Pressman, 1988; Peterson, 1987). While evidence has been mixed, some of these studies have found that "women have consistently constituted a larger proportion of the poor population than men" (Thibos et al., 2007, pp.1), and that women have accounted for a larger proportion of the growing percentage of the world's poor (Buvinic & Gupta, 1997). According to UNICEF (2007), of the 1.5 billion people living in absolute poverty (earning less than a dollar per day), about 70 percent are women. In the USA, for example, researchers found mixed results on whether feminization of poverty has occurred. Pearce (1978) found an increase of both women and FHHs members amongst the poor between the 1950s and the mid-1970s. Other researchers reached the same conclusion for the early 1960s (Northrop, 1990; Goldberg & Kremen, 1990; Pressman, 1988; Peterson, 1987; Fuchs, 1986). However, Fuchs (1986) found no evidence of feminization of poverty in the USA after 1970, whereas Goldberg and Kremen (1990) and Peterson (1987) maintained that there was a feminization of poverty during the same period. Davies and Joshi (1998) and Wright (1992) found no evidence of feminization of poverty in the United Kingdom. Elsewhere, Dooley (1994) found evidence of feminization of poverty in 1973 and 1990 in Canada. However, Medeiros and Costa (2008) found no clear evidence of feminization of poverty in Latin America.

Aggarwal (2012) concluded that one of the major factors attributed to a greater burden of women's poverty is the increase in the number of FHHs. In both developed and developing countries, there has been an increase in the number of FHHs (Todaro, 1989). Pearce (1978) found that in the late 1970s the fastest growing family structure in the United States was that of FHHs and that there was an increase of both women and FHHs members amongst the poor between the 1950s and the mid-1070s. Subsequently, it was believed that about half of the poor in the United States lived in FHHs in the mid-1980s (Moghadam, 2005). Similarly, some studies have also claimed that the growing poverty in sub-Saharan Africa is associated with the rise in the number of FHHs and that such households are disproportionately poor (Buvinic & Gupta, 1997). Additionally, a comparison of 61 studies concluded that 38 of them showed an over-representation of FHHs amongst the poor in sub-Saharan Africa (Buvinic & Gupta, 1997). The occurrence of feminization of poverty in the world has also been widely acknowledged amongst women advocates (Medeiros & Costa, 2008). For example, the 1995 Beijing Platform for Action identified the eradication of the persistent and increasing burden of poverty on women as one of the critical areas of concern requiring special attention by the international community, governments and civil society (Medeiros & Costa, 2008). Similarly, United Nations Commission on the Status of Women has prioritized the issue of women and poverty and has urged all the UN member states and the international community to mainstream gender perspectives in all their poverty eradication policies and programmes (UN, 1996; 2000; 2003). The objective of this paper is to examine evidence of feminization of poverty in Botswana using both the 2002/03 HIES and the 2009/10 BCWIS. The rest of the paper is organized as follows. Section 2 provides the background information of Botswana, while section 3 discusses the methodology and data. In section 4, the paper presents and discusses the results. Section 5 concludes and provides policy implications.

2. Background Information of Botswana

Botswana has remarkably transcended from amongst the poorest countries in the world to a middle income country. The country has since independence in 1966, prospered and enjoyed economic growth and development as well as political stability. Over the years, Botswana has maintained Africa's top position in transparency and good governance indexes, and it is deemed a shining beacon of democracy on the continent. Despite such progress and accolades, Botswana has a high income inequality with the Gini index estimated at 0.645 in 2009/2010, placing the country amongst the most unequal in terms of disposable income (Statistics Botswana, 2013). According to the 2014 World Economic Forum report, Botswana ranked 51 out of the 142 countries, placing it higher than South Africa and Namibia (at position 17 and 44, respectively), with regard to the Global Gender Gap Index (GGI) (WEF, 2014)[1]. Similarly, according to the Gender Inequality Index (GII), Botswana ranked higher (position 100) than South Africa (position 99) and Namibia (position 87) out of 187 countries (UNDP, 2013)[2].

Poverty in Botswana is more pronounced in female-headed households (FHHs), especially those residing in rural areas where employment opportunities are limited and is also higher amongst women in general (Statistics Botswana, 2013; Lekobane and Seleka, 2014). Although overall income poverty has been on the decline, the total share of the poor has been dominated by women. For example, FHHs accounted for about 54 percent of the total poor in 2002/03 and the figure had increased to about 60 percent by 2009/10 (CSO, 2008; Statistics Botswana, 2013). Moreover, the total decline in household poverty was higher (56.2 percent) for the male-headed households (MHHs) compared to FHHs (45.1 percent). The high incidences of poverty amongst women could be an indication that poverty alleviation programs are not effective in targeting the most vulnerable. It could also be an indication of the failure in the system to redistribute resources and opportunities fairly and equitably. One of the key contributing factors is that women constitute the majority of the unemployed, both in rural and urban Botswana. For example, in 2009/10, the female unemployment rate stood at 21.4 percent, compared to 14.6 percent for males (Statistics Botswana, 2013).

Poverty is a global challenge experienced in both developed and developing countries, and manifests itself in multiple ways. It has various dimensions and can be addressed variably. Due to socio-cultural and political issues in Botswana, women bear the brunt of poverty more than men for several reasons. For example, Botswana is said to have a society and a legal system which are highly discriminatory to women (Scribner & Lambert, 2010). Furthermore, Botswana has been defined as a highly patriarchal society, and Tswana culture tends to disadvantage women over men. Within customary marriages, property remains subject to the

husband's control as head of the family (Mogwe, 2013). The effects of historic inequalities experienced by women bear negative consequences on their current status. Historically and culturally entrenched inequalities in access to opportunities, resources and power are bound to trail progressive regulatory reforms; furthermore, it will take time for reforms to fully undo such inequalities (UN, 2010).

The government of Botswana equally acknowledges that "more remains to be done to advance the rights of women and girls and to reverse the deeply and long entrenched inequalities emanating from patriarchal systems and discriminatory cultural practices" (Gender Affairs Department, 2014, pp.10). Women in Botswana have limited access and control to productive resources. Ownership of land, boreholes and livestock (which are considered key assets in the Tswana community and culture) is skewed in favour of men (UN, 2010). The customary law gives more access and control of land to men. However, a precedent was set through the *Mmusi and Others vs Ramantele* case, where four women challenged the Ngwaketse customary law ruling which allowed for the youngest son to inherit the family home, stating that it infringed on their constitutional right to equality (Jonas, 2013). The High Court overturned the decision of the Customary Court, ruling in favour of the women.

Representation of women in Political decision making institutions such as parliament is poor and on the decline. The ratio of women in parliament declined from 18 percent in 1999 to 7 percent in 2009 (Mooketsane, 2014). Following the most recent 2014 national elections, representation of women in parliament has not improved and remains at 7 percent. The poor representation of women in parliament means that women are not well represented in a platform where key decisions affecting their lives are made. Equality, inclusion and participation of all groups in decision making and democratic governance are important tenants of a democracy. Despite the challenges, the country has made progress in some areas such as amendments of policies and laws which were discriminatory to women. The abolition of the Marital Power Act of 2004, which made wives minors to their husbands, was a progressive legal reform and an accomplishment in removing statutory subordination of women to men (MLHA, 2014). According to the 2010 Millennium Development Goals Report, Botswana has achieved parity in primary and secondary education and the share of women in decision-making positions in public and private sectors has grown (UN, 2010).

Government's establishment of the Gender Affairs Department in 2013 (replacing Women's Affairs Department), a department solely dedicated to gender issues, was another achievement in advancing the rights of women and empowering them. It is also an indication of commitment to the course of women, and to mainstream gender perspectives into laws, policies, development frameworks and program initiatives across sectors. The government of Botswana has prioritized poverty eradication as one of its key areas of focus (President Ian Khama's 2008 Inaugural Address, State of the nation address 2008), a shift from the previous poverty reduction stand. This was informed by the government's intention to surpass the Millennium Development Goal target of reducing extreme poverty by half in 2015 (Republic of Botswana, 2012). Consequently, there has been increased commitment and strong drive from the leadership in so far as poverty eradication is concerned. The designated poverty eradication programs are led and run from the Office of the President since they are a high priority to the government. Despite the greater incidence of poverty amongst women in Botswana, poverty is still not sufficiently analyzed through a gender lens. Moreover, no study has so far analyzed whether feminization of poverty has occurred in Botswana.

3. Methodology and Data

Our study is limited to the monetary dimension of poverty. Therefore, in examining evidence of feminization, we are referring to the monetary dimension of poverty; in this case, the consumption approach. However, this study acknowledges that poverty is multidimensional and that consumption (or income) is just one of the deprivations of poverty. We adopted the definition of feminization of poverty as proposed by Medeiros and Costa (2008). They defined feminization of poverty as "an increase in levels of poverty amongst women or FHHs relative to the levels amongst men or MHHs" (pp.120). This can be measured using either ratios or differences. The poverty incidences are already in ratios (headcount ratios) based on the Foster, Greer and Thorbecke (1984) measure of poverty[3]. We therefore use differences in this paper as they are more appropriate than ratios. The use of ratios may lead to misleading interpretations, especially in cases where small percentage differences lead to large ratio differences, which may lead to conclusions that feminizations

may have occurred when in actual fact it has not. Therefore, the use of ratios is not appropriate for a study such as this. This definition can be split into two; (1) an increase in the difference in levels of poverty amongst women and amongst men; and (2) an increase in the difference in levels of poverty amongst FHHs and amongst MHHs. This paper adopts the second definition and therefore examines feminization of poverty at household level. In line with the adopted definition, feminization of poverty occurs if the following condition prevails:

$$P_{\alpha t}(f_h) - P_{\alpha t}(m_h) < P_{\alpha t'}(f_h) - P_{\alpha t'}(m_h) \qquad (1)$$

Where P_α stands for the Foster, Greer and Thorbecke (1984) measure of poverty (FGT), t and t' for the initial and final points in time (that is, $t < t'$), *fh* for FHHs and mh for MHHs. Since FHHs are not homogeneous, we further examined feminization of poverty across regional dimensions (rural areas, urban villages and cities/towns) to capture the regional differences, and based on marital and employments status.

Data were obtained from the 2009/10 BCWIS and the 2002/03 HIES datasets. The BCWIS collected information from 7,732 households whilst the HIES collected information from 6,053 households, both conducted at national level, covering all the administrative districts (CSO, 2008; Statistics Botswana, 2013). Each survey covered household in rural, urban villages and cities/towns. The poverty datum lines (PDLs) calculated in the datasets use the cost of basic needs approach (CSO, 2008; Statistics Botswana, 2013). A household whose consumption expenditure was below the specified PDL was categorized as poor while that whose consumption expenditure was higher than its poverty line was classified as non-poor (CSO, 2008; Statistics Botswana, 2013). Descriptive statistics are presented in Annex Tables 1 and 2. The tables give the distribution of household heads by regional dimensions, marital status and employment status for both 2002/03 and 2009/10, based on the weighted and unweighted samples. Generally, the descriptive results are comparable for both the weighted and unweighted samples. It should however, be noted that the results of the analysis in this paper are based on the weighted sample.

4. Results and Discussion

Table 1 reports the findings at both national and regional (cities/towns, urban villages and rural areas) levels. As indicated therein, there is no evidence of feminization of poverty at both national and regional levels. The absence of feminization of poverty at both national and regional levels could be attributed to a mature and complex social protection system put forward by the government of Botswana which include amongst others the social assistance programs targeted to the most vulnerable groups in the country (World Bank and BIDPA, 2013). The government of Botswana has specified poverty eradication as one of its key areas of focus, a shift from the previous poverty reduction stand. Some of the programs geared at achieving this objective include a public works program (*Ipelegeng*) introduced and made permanent in 2009 as an instrument of poverty alleviation both in urban and rural areas (World Bank and BIDPA, 2013). Since its inception, the number of beneficiaries has increased steadily over time and females accounted to more than 70 percent of the total enrolment (BIDPA, 2012). Therefore, the absence of feminization of poverty between 2002/03 and 2009/10 could be partly attributed to programmes such as *Ipelegeng*, which enrols more women than men. Another social assistance programme, the Livestock Management and Infrastructure Development (LIMID), was introduced in 2007 with poverty alleviation component providing support for guinea fowl, Tswana chicken and small stock (sheep and goats) production to resource poor households, the majority of which are females (TRANSTEC and BIDPA, 2009). This may have contributed to the absence of feminization of poverty at both national and regional levels. However, in-depth studies would be required to verify if indeed the absence of feminization of poverty is related to some of the existing social assistance programmes.

Table 1: Feminization of poverty across regions

	2002/03			2009/10		
	$P_t(f_h)$	$P_t(m_h)$	$P_t(f_h) - P_t(m_h)$	$P_{t'}(f_h)$	$P_{t'}(m_h)$	$P_{t'}(f_h) - P_{t'}(m_h)$
Cities/towns	10.1	7.4	2.6	6.4	4.4	2.0
Urban villages	21.4	12.8	8.6	13.7	7.2	6.5
Rural areas	37.4	30.7	6.7	18.0	11.4	6.6
National	25.3	18.5	6.8	13.9	8.1	5.8

Sources: Author Computed from CSO (2008) and Statistics Botswana (2013)
*feminization of poverty occurred $P_t(f_h) - P_t(m_h) < P_{t'}(f_h) - P_{t'}(m_h)$

An examination of feminization of poverty by marital status depicts an interesting pattern in poverty differentials between FHHs and MHHs (Table 2). The results show no evidence of feminization of poverty amongst households headed by cohabiting couples and those whose heads never married. However, the results show evidence of feminization of poverty amongst households headed by married couples, divorced/separated and the widowed, between 2002/03 and 2009/10. Feminization of poverty across the married heads was unexpected since the incidence of poverty was lower amongst FHHs in both periods compared to MHHs. However, the total decline in incidences of poverty was slower amongst FHHs than MHHs. The incidence of poverty amongst FHHs (married) declined by 8.6 percentage points while that for MHHs declined by 10.9 percentage points, resulting in feminization of poverty amongst the married couples. The evidence of feminization of poverty could also be attributed to the overall decline in the share of married couples from 30.6 percent in 2002/03 to 26.9 percent in 2009/10. The decline was higher among FHHs with 3.5 percentage points, compared to 2.2 percentage points for MHHs (see Table A1).

Evidence of feminization of poverty amongst the divorced/separated household heads could be attributed to the increase of the FHHs amongst the poor divorced/separated heads. Data show that, in 2002/03, FHHs account for about 67 percent of the poor households headed by the divorced/separated individuals, and the figure had increased to about 86.4 percent in 2009/10 (Statistics Botswana, 2013; CSO, 2008). Data also show an increase in the share of FHHs amongst the divorced/separated household heads living with children, from 77.0 percent in 2002/03 to 91.3 percent in 2009/10, an indication that evidence of feminization of poverty amongst the divorced/separated could also be related to the high dependency ratios amongst such households. This is expected since in most cases, when marriages dissolve either through divorce or separation, mothers usually have the custody of the children, and end up caring for their children alone resulting in increased vulnerability or likelihood of falling into or remaining in poverty. Evidence of feminization of poverty amongst the widowed could result from the increase in the share of FHHs amongst the total poor households headed by the widowed. The share of FHHs amongst the widowed increased from about 88.9 to 94.2 percent between 2002/03 and 2009/10. Similarly, the share of FHHs amongst households headed by the widowed heads living with children increased from 76.1 to 87.3 percent between 2002/03 and 2009/10. Another reason could be that, in cases of the widowed, the departed partner could have been the breadwinner and thus resulted in loss of income for such households resulting in increased vulnerability to poverty over some time.

Table 2: Feminization of poverty across marital status

	2002/03			2009/10		
	$P_t(f_h)$	$P_t(m_h)$	$P_t(f_h) - P_t(m_h)$	$P_{t'}(f_h)$	$P_{t'}(m_h)$	$P_{t'}(f_h) - P_{t'}(m_h)$
Married*	18.9	21.5	-2.6	10.3	10.6	-0.3
Living Together	25.1	20.2	5.0	13.3	9.9	3.4
Divorced/Separated*	24.8	17.8	7.0	13.5	4.2	9.3
Widowed*	34.7	28.5	6.2	15.6	5.4	10.2
Never married	22.8	11.5	11.3	14.2	3.8	10.4

Sources: Author Computed from CSO (2008) and Statistics Botswana (2013)
*feminization of poverty occurred $P_t(f_h) - P_t(m_h) < P_{t'}(f_h) - P_{t'}(m_h)$

Table 3 reports feminization of poverty across employment status. The results show no evidence of feminization of poverty amongst households heads engaged in paid employment and amongst those working

as unpaid family helpers. However, feminization of poverty occurred amongst the self-employed, the unemployed and those working in own land/ cattle post. Across the self-employed, the incidence of poverty for FHHs declined by 7.1 percentage points compared to 10.4 percentage points amongst MHHs, implying that the decline in the incidences of poverty was lower among FHHs. Similarly, the incidence of poverty for FHHs declined by 17.5 percentage points while that for MHHs declined by 21.4 percentage points and across those working in own land/cattle post. The share of FHHs among household heads working in own land/cattle post increased from 4.8 percent in 2002/03 to 8.3 percent in 2009/10 whilst that for MHHs declined from 12.9 to 10.2 percent during the same period; hence evidence of feminization of poverty (see Table A1).

Table 3: Feminization of poverty across employment status

	2002/03			2009/10		
	$P_t(f_h)$	$P_t(m_h)$	$P_t(f_h) - P_t(m_h)$	$P_{t'}(f_h)$	$P_{t'}(m_h)$	$P_{t'}(f_h) - P_{t'}(m_h)$
Paid employment	11.9	8.7	3.2	7.2	5.3	1.9
Self-employment*	23.0	14.2	8.8	15.9	3.8	12.0
Unpaid family helper	38.7	14.0	24.7	24.2	9.2	15.1
Own land/cattle post*	32.4	37.3	-4.9	17.6	12.1	5.5
Unemployed*	36.8	37.7	-0.9	19.3	16.3	3.0

Sources: Author Computed from CSO (2008) and Statistics Botswana (2013)
*feminization of poverty occurred $P_t(f_h) - P_t(m_h) < P_{t'}(f_h) - P_{t'}(m_h)$

5. Conclusion and Policy Implications

The concept of feminization of poverty has been widely investigated by both scholars and researchers in both developed and developing countries. The majority of these studies concluded that women have consistently constituted a larger proportion of the poor population than men and women accounted for a larger proportion of the growing percentage of the world's poor. Similarly, in Botswana, poverty is more pronounced in FHHs than MHHs, especially in rural areas where employment opportunities are limited. Women and FHHs account for a larger proportion of the poor and the share has increased over time, suggesting that feminization of poverty may have occurred. However, no study has analyzed evidence of feminization of poverty in Botswana, and this constitutes the first attempt at investigating the subject in the country. We define feminization of poverty as the increase in the levels of poverty amongst FHHs relative to the levels for MHHs. Our study is limited to the monetary approach of poverty in measuring feminization of poverty. Therefore our conclusions refer mainly to the monetary dimension of poverty.

The results of the study indicate no evidence of feminization of poverty at both national and regional level. However, decomposing households by marital status reveals evidence of feminization of poverty amongst households headed by married couples, and divorced and widowed household heads. Therefore, public policy should focus on gender sensitive poverty alleviation strategies, with specific focus on the vulnerable FHHs, especially the divorced/separated and the widowed, in order to fully arrest feminization of poverty. This group accounted for about 12.5 percent of the total households in 2009/10 (translating to about 67,478 households) and also accounted for the larger share (80.7 percent) of the total divorced/separated or widowed household heads. Clearly these many households cannot be ignored and this paper recommends that a specific programme that targets such vulnerable households should be considered. Evidence of feminization of poverty was also observed amongst the unemployed, the self-employed and those working in own land/ cattle post. The majority of the unemployed comprised mainly of the female heads, accounting for more than 60 percent in both 2002/03 and 2009/10. The share of FHHs to households working in own land and cattle post also increased between the same period; from 24.4 to 40.7 percent.

NOTES

1. The GGI measures gender disparity based on four dimensions and gaps, namely, economic, political, education and health.
2. The GII measures gender disparity based on three dimensions; reproductive health, Empowerment and Labor market participation.

3. The Foster, Greer and Thorbecke (1984) family of poverty measures is given by $P_\alpha = \frac{1}{n}\sum_{i=1}^{n}\left[\frac{Z_i - Y_i}{Z_i}\right]^\alpha$ where $\alpha \in \{0, 1, 2\}$ is a parameter of inequality, Y is consumption expenditure, and n is the number of households. When $\alpha = 0$, we have the headcount ratio, which measures the share of the population below the poverty line Z. When $\alpha = 1$, we get the poverty gap and when $\alpha = 2$, get the squared poverty gap.

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Table A1: (Appendix 1): Descriptive Statistics based on the weighted sample

	2002/03						*2009/10*					
	Number			*Percent*			*Number*			*Percent*		
	MHH	*FHH*	*ALL*	*MHH*	*FHH*	*ALL*	*MHH*	*FHH*	*ALL*	*MHH*	*FHH*	*ALL*
Regional Dimensions												
Cities/towns	65730	43826	109556	31.1	24.0	27.8	84984	54885	139869	28.8	22.2	25.8
Urban villages	57880	63440	121320	27.4	34.7	30.8	88385	87971	176356	30.0	35.6	32.6
Rural areas	87793	75602	163395	41.5	41.3	41.4	121275	104157	225432	41.2	42.2	41.6
National	*211403*	*182868*	*394272*	*100*	*100*	*100*	*294644*	*247013*	*541657*	*100*	*100*	*100*
Marital Status												
Married	93024	27682	120706	44.0	15.1	30.6	117261	28636	145897	39.8	11.6	26.9
Living together	48842	21624	70466	23.1	11.8	17.9	74901	35496	110397	25.4	14.4	20.4
Divorced/separated	4099	6194	10293	1.9	3.4	2.6	6459	12845	19304	2.2	5.2	3.6
Widowed	6457	42309	48766	3.1	23.1	12.4	9659	54633	64292	3.3	22.1	11.9
Never married	58982	85060	144042	27.9	46.5	36.5	86319	115403	201722	29.3	46.7	37.2
Total	*211403*	*182868*	*394272*	*100*	*100*	*100*	*294599*	*247013*	*541212*	*100*	*100*	*100*
Employment Status												
Paid employment	125824	72278	198102	59.5	34.2	42.8	179338	106154	285492	60.9	43.0	52.7
Self employed	14976	19519	34495	7.1	9.2	16.3	21796	16602	38398	7.4	6.7	7.1
Unpaid family helper	1637	531	2168	0.8	0.3	0.5	6563	4977	11540	2.2	2.0	2.1
Own land/cattle post	27236	8781	36017	12.9	4.8	9.1	29968	20588	50556	10.2	8.3	9.3
Unemployed	41731	81760	123491	19.7	44.7	31.3	56979	98692	155671	19.3	40.0	28.7
Total	*211403*	*182868*	*394272*	*100*	*100*	*100*	*294644*	*247013*	*541657*	*100.0*	*100.0*	*100.0*

Source: Author computed from CSO (2008) and Statistics Botswana (2013)

Table A2: (Appendix 2): Descriptive Statistics based on the unweighted sample

	2002/03						*2009/10*					
	Number			*Percent*			*Number*			*Percent*		
	MHH	*FHH*	*ALL*	*MHH*	*FHH*	*ALL*	*MHH*	*FHH*	*ALL*	*MHH*	*FHH*	*ALL*
Cities/towns	789	675	1464	23.8	24.6	24.2	1258	784	2042	30.1	22.1	26.4
Urban villages	828	935	1763	25.0	34.1	29.1	1180	1259	2439	28.2	35.4	31.5
Rural areas	1696	1130	2826	51.2	41.2	46.7	1739	1512	3251	41.6	42.5	42.0
Total	*3313*	*2740*	*6053*	*100*	*100*	*100*	*4177*	*3555*	*7732*	*100*	*100*	*100*
Married	1458	404	1862	44.0	14.7	30.8	1670	420	2090	40.0	11.8	27.0
Living together	764	346	1110	23.1	12.6	18.3	1054	503	1557	25.2	14.1	20.1
Divorced/separated	57	93	150	1.7	3.4	2.5	99	188	287	2.4	5.3	3.7
Widowed	84	532	616	2.5	19.4	10.2	153	804	957	3.7	22.6	12.4
Never married	950	1365	2315	28.7	49.8	38.2	1201	1640	2841	28.7	46.1	36.7
Total	*3313*	*2740*	*6053*	*100*	*100*	*100*	*4177*	*3555*	*7732*	*100*	*100*	*100*
Paid employment	2217	1290	3507	66.9	47.1	57.9	2524	1499	4023	60.4	42.2	52.0
Self employed	260	290	550	7.8	10.6	9.1	315	238	553	7.5	6.7	7.2
Unpaid family helper	17	6	23	0.5	0.2	0.4	89	71	160	2.1	2.0	2.1
Own land/cattle post	268	82	350	8.1	3.0	5.8	436	311	747	10.4	8.7	9.7
Unemployed	551	1072	1623	16.6	39.1	26.8	813	1436	2249	19.5	40.4	29.1
Total	*3313*	*2740*	*6053*	*100*	*100*	*100*	*4177*	*3555*	*7732*	*100*	*100*	*100*

Source: Author computed from CSO (2008) and Statistics Botswana (2013)

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Choice of Intermediary for Leisure Travel Arrangements

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Abstract: Travellers can plan and arrange holidays themselves online or through the supplier, or use the services of a travel organizer, such as a travel agent. Consumers of travel services will seek to optimize choices by selecting a distribution channel which will provide them with the greatest perceived value. The primary goal of this study is to explore the underlying factors that influence consumer behaviour in making travel decisions, with specific reference to choosing between booking through a travel agent or online. Research with a perspective on travel decision-making in South Africa is limited. This study surveyed 408 respondents residing in South Africa using a structured questionnaire examining preference in booking holiday flights or accommodation through a travel agent or Internet. Exploratory factor analysis was used to identify factors influencing traveller decision-making. Factors that influence travel decision-making were identified to include *'trust*', '*convenience and adoption of technology*', '*best deal and price*', and '*personal contact*'. Travellers who preferred booking through the Internet found the potential of technology to save time and effort and to be convenient, due to the Internet being available day and night, important advantages of booking online. Travellers who preferred booking through a travel agent placed a premium on personal contact and social interaction between traveller and travel agent. They further valued the travel experience and ability of the travel agent to group transactions.

Keywords: *Travellers, travel agent, Internet, travel decisions, online booking*

1. Introduction

Distribution in the travel industry involves getting travellers and service offerings together. Information such as the way in which travellers make travel decisions - their preference of distribution channel or intermediary, is of immense value. Intermediaries in the travel industry compete for market share, making use of ingenious marketing prose (perceived value) in an attempt to convince customers that their offering is superior. Travel agents have been traditionally seen as the key intermediary between suppliers of travel services and the consumer. Their roles include serving as information centres and being a point of sale for suppliers of travel services to the public (Burkart & Medlik, 1981). They play a valuable role in matching the supply of travel services with potential demand, since it is often assumed challenging for consumers to deal with suppliers of travel services directly. Developments in the field of Information Technology (IT) have provided consumers with an alternative to booking via a travel agent - the possibility to plan and arrange holidays online (Hyde & Decrop, 2011). Technology increases choice. Travellers are able to read electronic reviews on destinations, compare prices or instantly make personal travel arrangements. Travellers will investigate and choose a distribution channel according to the choice that will provide them with the greatest perceived value (Izquierdo-Yusta & Martinez-Ruiz, 2011). Anckar (2003) agree, by postulating that consumers choose a distribution channel based on perceived net value of channel, seen as a trade-off between overall benefits and overall barriers to using them.

Previous research undertaken in South Africa (Correia & Elliott, 2006; de Jager & Ezeuduji, 2015; Elliott & Boshoff, 2009; Lubbe, Endres & Ferreira, 2006; Wynne, Berthon, Pitt, Ewing & Napoli, 2000), provided valuable information regarding the development of the Internet as a useful booking avenue for travel services. Wynne et al. (2000) argue that the Internet is fast becoming a key role player in the distribution chain of various industries. The advent and evolvement of Internet shopping opened up new opportunities in distributing and selling travel products or services, such as air tickets and hotel rooms. Taking into account the rapid growth of Internet usage, it is postulated that the Internet is undeniably a key role player as distribution channel for travel services clearly influencing the position of the travel agent in the supply chain. Consumers make travel decisions according to a multitude of factors, which needs to be recognised by both online suppliers and travel agents. Such factors include issues such as trust in an intermediary (Izquierdo-Yusta & Martinez-Ruiz, 2011), shopping convenience (Christou & Kassianidis, 2002) and price (Mayr & Zins,

2009). The primary goal of the study is to explore factors that influence consumer behaviour in making travel decisions, with specific reference to choosing between a travel agent and an online booking site, in South Africa. In attempting to achieve this goal, this study surveyed 408 respondents residing in South Africa using a structured questionnaire, and examined preference in booking holiday flights or accommodation through a travel agent or Internet. Research with a perspective on travel decision-making in South Africa is limited; hence this study will provide more insight into travellers' choice of a distribution channel in the South African context. Globally, the travel industry just like other industries is characterised by customers' ever-changing demands and behaviour. Studies on factors impacting travellers' choice of a distribution channel always need to be updated. This study will also provide updated information on the factors that motivate consumers to use a particular intermediary for travel arrangements. Results from this study could possibly be compared with related findings in the international literature.

2. Literature Review

Travel intermediaries – travel agents and the Internet: Travel intermediaries, consisting of travel agents and online or Internet suppliers, perform three main roles: a) they accumulate and sort 'stock' – mostly electronically, since bookings are confirmed off inventories by travel agents and online suppliers, b) they minimize distribution costs by standardizing transactions. Travel agents and online suppliers make use of various payment methods, i.e. credit cards and electronic bank transfer, and c) they structure information for both parties, the supplier and traveler, so that it is useful and may lead to a booking being made (Wynne et al., 2000).

Internet: Suppliers in the travel industry, such as hotels and airlines, have identified the use of IT as both a cost reduction tool and effective distribution method (Vasudavan & Standing, 1999).The growth of the electronic medium is accordingly driven from both a supply and demand perspective. Kracht and Wang (2010), in their discussion of the evolution of the tourism distribution channel, point out that the advent of the Internet as intermediary did not necessarily transform the structure of the distribution channel from a simple to complex one, but rather made an already complex structure even more complicated. Whereas technology with regard to travel services in the 1980s stretched as far as a travel agent making use of basic travel software to make an air booking and using the telephone to make hotel bookings, the development of technology has led to a myriad of stakeholders becoming involved in the intermediation / distribution process. The level of competition between travel suppliers and the complexities of contracting agreements through IT suppliers in for example providing software or support, further point to the complexities IT and technology brought to the distribution of travel services. Technology accordingly brought new challenges to the consumer as well, with the lack of human interaction being the initial barrier to deal with.

The online booking website, Travelstart (Travelstart, 2012), promote online booking by pointing to the following factors: a) booking online saves a customer time and money, b) 'you can be your own travel agent', in other words being able to control your own booking, searching for deals without having to rely on a travel agent, c) 'having access to over 11 000 travel destinations' – being able to find airfares to your destination of choice, d) 'having latest technology available at your fingertips', e) 'no hidden costs' i.e. no extra fees to be paid or added at a later stage, and f) 'help always being at hand through interactive media' such as chat capability on a website, or being able to phone a call centre in case of requiring assistance. Further benefits of the Internet from a supplier's point of view are documented in research by Elliott and Boshoff (2009). The Internet acts as a unique and challenging instrument with which to market travel. Issues related to marketing strategy, such as the speed of Internet, customer convenience and the marketing reach of the Internet were discussed in their research (Elliot & Boshoff, 2009). The Internet is therefore undeniably a key role player as distribution channel for travel services.

Travel agents: Although the online intermediary is not completely dominant, travel agents, considered to be the main traditional distribution channel to wholesale suppliers (Anckar, 2003; Lubbe, Endres & Ferreira, 2006), will have to clearly re-evaluate their position in the travel industry, providing ways of adding value to travelers, in order to remain relevant. Hence, in an attempt to convince consumers not to make use of the Internet and book through a travel agent, Chelsea Travel, a traditional travel agency based in Cape Town, South Africa (Chelsea Travel, 2012), points to possible difficulties in making use of the Internet for bookings:

a) 'the Internet cannot rebook, change or reconfirm times of flights on your behalf', b) 'the Internet does not show care and loyalty towards clients' (a statement that is opposed by Dunn, Baloglu, Brewer & Qu, 2009), c) 'the Internet is a heap of information', whereas travel agents 'weed' out unnecessary information, and d) 'if there is a problem with a booking, who can a traveler turn to?'(Chelsea Travel, 2012).

Cross-channel behavior: Trevellers may make use of both intermediaries for travel planning and bookings, at the same time. Several studies refer to the multi-channel phenomenon of travelers making use of both the travel agent and Internet for different reasons (Jensen, 2012; Kracht & Wang, 2010; Rose, 2009; Toh, Dekay & Raven, 2011; Van Dijk, Minocha & Laing, 2006; Wolfe, Hsu & Kang, 2004; Yang & Fang, 2004). Examples of cross-channel behavior include travelers who find the convenience of researching holiday options online at their own time, but preferring to make actual bookings through a travel agent. Other travelers enjoy the social interaction with travel agents, gathering travel ideas and suggestions but prefer to book online. Travellers in an attempt to achieve the best 'value for money' from a purchase identify strengths of either intermediary and make use of both intermediaries in satisfying their needs and wants.

Factors influencing travel decision-making: Literature review revealed that the 'value for money' concept features prominently in how consumers evaluate a potential purchase. Factors influencing traveler decision-making are inter-related; however travelers will typically gauge the value of purchase by:

a) Making use of an intermediary which they trust (Jarvenpaa, Tractinsky & Vitale, 2000; Macintosh, 2008; Izquierdo-Yusta & Martinez-Ruiz, 2011).
b) Using a booking intermediary where they can save time, whether in terms of researching or transacting (Ryan & Valverde, 2005, Jensen, 2012).
c) Using an intermediary which is suited to a traveler's individual level of technological ability (Anckar & Walden, 2002; Mayr & Zins, 2009).
d) Making use of an intermediary which will allow the greatest level of convenience, whether physically (Buhalis & Licata, 2002) or electronically (Ahmad & Juhdi, 2009).
e) Weighing up the price of a service against the benefits derived from a potential purchase (Buhalis & Licata, 2002; Del Chiappa, 2013).
f) Evaluating some service quality dimensions: level of empathy (Cheyne, Downes & Legg, 2006), assurance in the booking intermediary (Austin, Ibeh & Yee, 2006) and reliability (Dunn et al., 2009).

It is foreseen that this study will complement current literature by either validating or contradicting past findings, whilst shedding light on nuances unique to the South African scenario.

Research hypothesis: This research therefore posits this hypothesis –travelers make leisure travel arrangements online or through travel agents for different reasons.

3. Methodology and Design

A questionnaire-based survey research technique was used to collect the required primary data. Questionnaire survey is an ideal way of getting information from travellers, as leisure and tourism information are qualitative in nature but mostly presented in quantitative form (Veal, 2011). A structured questionnaire was made available for distribution in hard-copy (printed) format and online, via a web-based link. The reason for making use of both methods was to allow for more representative results and to reduce selection bias. Fricker, Galesic, Tourangeau & Yan (2005) and Simsek and Veiga (2000) point to the usefulness of mixed-mode surveys in that it potentially decreases selection bias, due to unequal Internet access by populations. Due to the fact that not all travellers have access to the Internet, respondents were allowed the opportunity to complete a printed version of the questionnaire in selected travel agencies in Gauteng Province of South Africa, which in turn was predicted to strengthen the validity of results. Conversely, it was envisaged that the online survey format would allow a wider reach, be relatively inexpensive (substantially less paper required), adding to its value as survey method for this study. The hard-copy and electronic versions of the questionnaire were identical in content.

Web-based link questionnaires were sent out to individuals via e-mail, asking their consent in participation. The web-link was also posted on one of the author's personal Facebook page. The web-link immediately

directed respondents to the website where the questionnaire was hosted. The host company used for the electronic questionnaire was Survey monkey, and completed questionnaires arrived in one of the author's e-mail inbox when completed. Due to the nature of electronic media (being able to e-mail across geographical borders), the challenge of limiting the electronic survey to South African borders were recognised. Participants were made aware of the pre-requisite of residing within South Africa in order to take part in the survey. Compulsory introductory questions determined whether potential participants qualified to take part in the survey. Should a potential respondent not qualify in any of the pre-determined criteria, they were redirected to the homepage of Survey monkey and they were not able to respond to the questionnaire. Technically, through identifying the unique IP (Internet Protocol) address of the respondent's computer, participants were only able to complete a questionnaire once. The most effective method of ensuring most electronic questionnaires were returned by South African residents was by e-mailing the web-based link to South African business contacts, peers and friends only and emphasising the importance of geographical focus. For the hard-copy questionnaires, travellers who visited travel agencies were requested to complete the hard-copy version of the questionnaire. Ten travel agencies were targeted. Travel agencies were approached personally, printed questionnaires delivered and also e-mailed to the selected travel agents to distribute to both clients and potential clients to complete in the travel agency, or to be taken home and returned upon a return visit. Respondents in travel agencies were selected based on consent and at random.

Due to the extensive residential spread (geographically and residentially) of tourism students at Boston City campus (Pretoria, South Africa), the assistance by students in distributing as well as collecting the hard-copy version of questionnaires was used. The benefit is that a representative population were reached in the process. Further participants were approached by one of the authors randomly and business contacts, industry peers, friends and colleagues were requested to complete the questionnaire. A total of 408 questionnaires were received, of which 406 were usable. Selection criteria for participation in this survey were:

a) Individuals being 18 years or older. The researchers postulate that travel related decisions are mostly made by adults. b) The research sample should focus on leisure travellers exclusively (those travelling for pleasure, holidays, relaxation – thus excluding business travel). Business travel decision-making varies considerably from leisure travel decision-making. Business travellers generally place a high premium on flexibility and comfort, whereas leisure travellers tend to focus on budget and practicality of travel arrangements. Business travel is often booked by personal assistants or travel departments, which complicate the attempt of this study to focus on individual travel preference between Internet and travel agent. Due to the pertinent differences between the two groups, business travellers were excluded from the study. **b)** A respondent must have made a hotel booking or flight booking for domestic or international travel within the last year through either a travel agent or the Internet. **c)** Respondents should be South African residents. Section A part of the questionnaire enquired into respondent's profile. Traveller profile questions were sorted into categorical variables.

Section B specifically focused on possible respondent motives in making use of either the travel agent or Internet, by reviewing the elements considered to be of critical importance in the decision-making process as determined through the literature study. The elements are: trust/risk (Austin et al., 2006; Izquierdo-Yusta & Martinez-Ruiz, 2011; Kim, Kim and Leong, 2005), ease of use and technological adoption (Ahmad & Juhdi, 2009; Anckar & Walden, 2002; Gianforte, 2003), empathy (Caro & Roemer, 2006; Wolfe et al., 2004), price (Cheyne et al.,2006; Mayr & Zins, 2009), cross-channel behavior (Jensen, 2012; Toh et al., 2011), convenience (Buhalis & Licata, 2002; Jensen, 2012), time (Mayr & Zins, 2009; Morgan, Pritchard & Abbott, 2001), assurance (Austin et al.,2006; Jarvenpaa et al., 2000), reliability (Dunn et al., 2009; Holloway & Beatty, 2008) and complexity (Moital, Vaughan, Edwards & Peres, 2009; Ryan & Rao, 2008). This section B part of the questionnaire were itemised along a 5-point Likert-type scale ranging from 1, strongly agree; 2, tend to agree; 3, tend to disagree; 4, strongly disagree; 5, not applicable. SPSS version 22 software was used for statistical analysis (IBM Corporation, 2013). The first stage of analysis used descriptive statistics to derive frequency for all responses (in percentages). The second stage of analysis used factor analysis to reduce the large number of variables and group them into smaller factors. The ability of factor analysis to reduce and group variables, establish underlying dimensions between grouped variables and provide evidence of scale validity, is

recognised in studies by Hair, Black, Babin and Anderson, (2010); Pallant (2007); and Williams, Brown and Onsman, (2010).

Williams et al. (2010) refer to two types of factor analysis – confirmatory factor analysis (CFA) and exploratory factor analysis (EFA). Exploratory factor analysis allows the researcher to explore main dimensions in order to develop a theory from a large set of items. Confirmatory factor analysis, on the other hand, is mainly used to test a proposed theory and has expectations based on past information (Williams et al., 2010). Exploratory factor analysis was chosen for this study due to the exploratory nature of the research. The questionnaire consisted of 31 items that could explain traveller decision-making pertaining to using a travel agent or Internet in making travel arrangements. Factor analysis enables the researcher to identify factors that underlie variables, which in turn is useful in eliminating low scoring coefficients, which may distort results. Factor analysis accordingly facilitates the development and refinement of research theory (Williams et al., 2010). The Principal component analysis method (PCA) was applied to extract factors. PCA is commonly used to summarise the variance in factors and is a preferred data extraction method for reducing data volume, and to make prediction possible (Hair et al., 2010). In deciding which factors to retain, the Kaiser's criterion technique was used. The Eigen value rule, emanating from this technique recommends that only factors with an Eigen value of 1.0 or more be retained for analysis (Conway & Huffcutt, 2003; Pallant, 2007; Williams et al., 2010). Seven components scored an Eigen value of above 1.0, with 35.08% and 27.17% of variance explained cumulatively from components 1 and 2 respectively. Factors with low Eigen values (less than 1.0) hardly contribute in explaining the variance in variables and are subsequently often overlooked in the quest for identifying and grouping high-scoring variables together (Pallant, 2007). The reliability of the seven components was tested via Cronbach's Alpha.

The reason for using Cronbach's Alpha test is to determine internal consistency of the scales examined (Gliem & Gliem, 2003, p. 83). Cortina (1993, p. 103) describes coefficient alpha as "useful for estimating reliability in a particular case: when item-specific variance in a unidimensional test is of interest". The Cronbach Alpha reliability coefficient usually ranges between 0 and 1 (Gliem & Gliem, 2003, p. 87), with scores above 0.7 generally indicating a consistent scale. Despite the importance of reliability, there are no set or definitive parameters indicating a reliability of scale (Peterson, 1994). Peterson (1994) clearly illustrated this in comparing recommended levels of reliability amongst the most referred authors on Cronbach's Alpha reliability scores. Peterson found that Nunally, the most widely referenced author on Cronbach Alpha, supported a score of between 0.5 and 0.6 as minimally acceptable in 1967, but subsequently changed this to 0.7 in his research of 1978 (Nunally, 1978), without much explanation. Peterson contends that recommendations on acceptable Cronbach Alpha scores emanated from experience or intuition and not empirical evidence. Commonly, a cut-off point of 0.5 - 0.7 is used for Cronbach Alpha values (George & Mallery, 2003). A low Alpha score could be due to a small number of items or poor interrelatedness between items in analysis (Tavakol & Dennick, 2011). For the purposes of this study, a Cronbach Alpha level of 0.7 was considered to be acceptable, with the exception of factor three (labelled *'best deal and price'*) and four (labelled *'personal contact'*). The factor analysis technique, identified, '*best deal and price'* and *'personal contact'* (self-termed by the author) as important factors to be analysed, since it contributed to 12.78% and 10.84% of total variance explained. Other factors used in the analysis include factor one - '*trust*' and factor 2 - '*convenience and technological adoption'*. The Cronbach's Alpha score of '*best deal and price'* and '*personal contact'* however scored 0.62 and 0.68 respectively, which is lower than the generally accepted score of 0.7. Both factors were retained for analysis due to the small number of items they contained (three and two respectively) and the interrelatedness of the items (Tavakol & Dennick, 2011). There were no items loaded onto factor 6, whereas factors 5 and 7 were eliminated due to low Cronbach Alpha scores (less than 0.6) of 0.54 and 0.30 respectively. The four main factors retained for analysis explained 86% of variance in data.

4. Results and Discussion

Tourists' profile and leisure travel pattern: Table 1 depicts the socio-demographic characteristics of respondents. They were more females than males. Respondents were mostly under the age of 50 years, dominated by white travellers. About 33% of them have a University degree or higher qualification, and about 42% having R20, 000 or more as monthly household income (US$1 is equivalent to about R12 at the time of writing). Paid employees dominate the sample, with most of them having access to Internet, and many of

them responding they have shopped online before or made travel booking online. Many of the members of the sample population, therefore, can be said to have adopted Internet technology. 70% of them do travel domestically at least once a year, and 38% of them do travel internationally at least once a year. Domestic flight bookings were done much more online than through a travel agent, while international flight bookings were done much more through a travel agent than online. Hotel bookings were done more online than through a travel agent. Respondents who selected the "not applicable" answer for domestic and international flights may have made use of both intermediaries and were unsure of which intermediary they made more use of.

Table 1: Profile and leisure travel pattern of the respondents (n = 406)

Variable	Category	Frequency (%)
Gender	Male	42.0
	Female	58.0
Age group	18-29	33.7
	30-39	24.3
	40-49	20.9
	50-65	18.4
	65 and above	2.7
Race	Black	28.2
	White	62.2
	Colored	5.9
	Indian/Asian	3.7
Education	Primary Level	3.9
	Matric	28.6
	Diploma	34.6
	University Degree	21.5
	Postgraduate Degree	11.4
Household income per month	R5000 – R19999	57.7
	R20000 – R34999	23.1
	R35000 and above	19.2
Employment status	Paid employee	67.9
	Employers/ Self-employed	15.1
	Students	11.1
	Retirees	4.2
	Unemployed	1.7
Access to Internet	Yes	92.0
	No	8.0
Shopped online before	Yes	62.0
	No	38.0
Made online travel booking before	Yes	69.0
	No	31.0
I travel for holidays domestically…..	Once every few years	30.0
	Once a year	37.0
	More than once a year	33.0
I travel for holidays internationally	Once every few years	62.0
	Once a year	30.0
	More than once a year	8.0
In most cases I book my domestic flights…..	Online	53.0
	Travel agent	25.0
	Directly from airline	13.0
	Not applicable	9.0
In most cases I book my international flights…..	Online	27.0
	Travel agent	45.0
	Directly from airline	9.0
	Not applicable	19.0

In most cases I make hotel bookings via…..	Internet	39.0
	Travel agent	31.0
	Directly from hotel	24.0
	other	6.0

Identification of factors influencing traveller decision-making: Through factor analysis, four factors were identified as significant for the outcome of this study: '*trust*', '*convenience and technological adoption'*, '*best deal and price'* and '*personal contact'* (Table 2). The factors were self-named by the authors and contain variables which relate closely to each factor.

Table 2: Factor analysis: motivational dimensions, items and statistics[a b c]

Motivational dimensions	Items	Factor loading	Mean ±SD		Cronbach Alpha	Variance explained (%)
Trust (combined mean: 1.95 & +/- SD 0.94)	Value added services	0.897	1.77	0.867	0.912	35.08
	Travel agent backup in case of emergency	0.808	1.83	0.938		
	Distrust of some travel websites	0.797	1.96	0.936		
	Superiority of travel agent knowledge	0.730	1.84	0.900		
	Superiority of travel agent booking systems	0.723	1.80	0.868		
	Superior travel agent rates	0.706	1.95	0.886		
	Need for expert advice	0.634	1.92	0.911		
	Exclusive use of well-known websites	0.632	1.77			
	Sharing ideas with a travel agent	0.612	0.930			
	Complexity of international flight bookings	0.566	1.86			
	Making mistakes with online bookings	0.511	0.952			
	Cost of downloading data	0.485	2.11			
			0.990			
			2.19			
			1.035			
			2.45			
			1.010			
Convenience & Technological adoption (combined mean: 3.14 & +/- SD 0.81)	Online searches saves times	0.723	3.18	0.784	0.841	27.17
	Online Travel information is trustworthy	0.716	3.14	0.720		
	Finding specific info online is easy	0.683	3.25	0.798		
	Viewing photos / reading online reviews	0.671	3.31	0.796		
	Online transactions are trustworthy	0.668	3.23	0.797		
	Convenience of online being available any time	0.613	3.11	0.793		
	I can make own arrangements	0.471	2.76			
			0.999			
Best deal& price (combined mean: 2.71 & ± SD 0.90)	Offering best deal	0.762	2.63	0.865	0.618	12.78
	Sales pressure	0.663	2.54	0.951		
	Internet price	0.432	2.95	0.881		

Personal contact (combined mean: 2.0 & ± SD 0.86)	Atmosphere in a travel agency	0.719	1.97	0.864		
	Doing research online and booking through travel agent	0.457	2.01	0.864		
					0.676	10.84

[a] Items were arranged according to results of factorial analysis (Eigen value > 1) and factorial loadings > 0.43 (Costello & Osborne, 2005)
[b] Questionnaire were itemised along a 5-point Likert-type scale ranging from 1, strongly agree; 2, tend to agree; 3, tend to disagree; 4, strongly disagree; 5, not applicable
[c] Two factors were excluded from results due to low reliability scores

Trust and deciding between booking online or through a travel agent: The issue of trust played an important role in the results of this study. It was the highest ranking factor from factor analysis, with 12 questionnaire items (see Table 2) covering various aspects related to trust and 35.08% of variance explained by this factor. The questionnaire was designed to delve into these aspects and compare consumer opinions with regard to trust when booking domestic flights, international flights and hotels. The items relating to trust factors include trust in transacting online, the need for expert travel advice and travel agent backup in case of emergency. Austin et al. (2006: 25)defined online trust as the "willingness to engage in an online transactional relationship despite being vulnerable to the seller as a result of a lack of verifiable and adequate knowledge of the vendor, the product / service being sold and no guaranteed assurance of how or where disputes will be resolved". Jarvenpaa et al. (2000), further state that for trust to exist, the consumer needs to believe that the supplier have the ability and motivation to deliver services of the quality expected. It is clear from both Austin et al. (2006) and Jarvenpaa et al. (2000) that the issue of trust in the relationship between consumer and supplier is heavily influenced by the realisation of expectations created by the supplier. Expectations related to trust include traveller dependability on a travel intermediary in offering travel services promised, expertise of the intermediary in terms of knowledge and practical experience, and familiarity – the ability of the intermediary to provide services that suit the specific need of a traveller based on understanding the needs of the traveller (Macintosh, 2008).

The Mann-Whitney U test was performed to test for differences between a categorical variable (Internet or Travel agent) and an ordinal/continuous variable (for example Trust). It is a non-parametric alternative to the parametric T-test and is ideally suited to detecting population differences when assumptions regarding the underlying population are questionable. The Mann-Whitney U test compares medians (*Md*), converts scores on continuous variables into ranks across two groups and subsequently evaluates ranks in order to check for significant differences between two samples (Hinton, 2010; Pallant, 2007). The Mann-Whitney U test revealed the high significance of the trust factor for both travellers booking domestic flights through a travel agent or the Internet *(U* = 5067, *z* = -7.56, *p* = 0.00). The Mann-Whitney U test produced a similar result in travellers' attitude towards trust when booking international flights. The importance of trust is indicated in the highly significant result *(U* = 5135, *z* = -6.47, *p* = 0.00). The majority of respondents strongly agreed (32%) or tended to agree (38%) with the statement that travel agents offer ancillary services to exclusively booking flights or hotels, which prompts them to deal with a travel agent. The ability of travel agents to offer a service, such as assistance with visa applications, is an aspect related to trust and convenience. The visa application process is often a nerve wrecking experience. The trust and knowledge of a travel agent in regularly dealing with visa applications, could convert a possible online customer to booking through a travel agent. Backup and assistance is very important in case of any travel related emergency, whether a delayed flight or medical situation. Most respondents (34% strongly agreed and 32% tending to agree) indicated that the physical contact and backup a travel agent may provide in such a situation could influence them in making travel bookings through a travel agent. It is at times difficult for travellers to distinguish between facts and fiction when making an online booking. Respondents were inclined not to trust all websites, with 24% in strong agreement and 35% tending to agree that some websites are merely "good looking" and far from reality. The knowledge of a travel agent and experience in making previous bookings through reputable operators could be motivational in travellers preferring to book through a travel agent.

Respondents further indicated that travel agent knowledge and experience is superior to that of the Internet. Most travellers require expert advice in choosing between hotels or airlines when having to make a booking. The ability of a travel agent to consult a customer in person could generate a relatively high level of trust in a travel agent in assisting to decide between hotel or flight options. Jarvenpaa et al. (2000), Macintosh (2008) and Izquierdo-Yusta and Martinez-Ruiz (2011), pointed out to trust playing an important role for consumers making travel decisions. Literature further underlines the multi-dimensionality of the trust factor. Studies by Austin et al. (2006), Berthea and Moisescu (2011) and Jarvenpaa et al. (2000), emphasise the concept of offering services of value and quality in building a relationship of trust between intermediary and traveller. Experience in making bookings, either online or through a travel agent, is identified by Card, Chen and Cole (2003), Kamarulzaman (2007) and Izqueirdo-Yusta and Schultz (2011) as being an important dimension of trust.

Convenience and technological adoption and their roles in traveller decision-making: The way in which travel products are supplied and being presented to consumers is changing as rapidly as technology is. Whereas it was technologically unthinkable to be able to book your own flights online 30 years ago, it is today a common occurrence. The availability of such technology subsequently led to further development in attempts by both the online supplier (Internet) and travel agent to provide travellers with the most convenient and technologically advanced method of making travel bookings. It was not surprising that both factors were considered to be important for travellers in deciding between travel agent and Internet. Ahmad and Juhdi (2009) Anckar and Walden (2002), Buhalis and Licata (2002), Christou and Kassianidis (2002), Jensen (2012), Mayr and Zins (2009), and Ryan and Valverde (2005) pointed out to convenience and technological ability playing important roles for consumers making travel decisions. Assessment of possible differences in preferring Internet booking to booking via a travel agent or vice versa and the role of convenience and technological adoption, was made via the Mann-Whitney U test, which revealed that both travellers who preferred booking online, as well as those preferring the travel agent, agreed on the importance of convenience and technology in influencing decision-making. The result is highly significant (U = 8317, z = -3.25, p = 0.01). A similar scenario is evident in comparing convenience and technological adoption when concerned with booking international flights (U = 6140, z = -4.98, p = 0.00).

A cornerstone of technology in today's age is its ability to save time. Holidaymakers often have to work long hours, saving up for a holiday and they do not necessarily have the time to research or book their travel arrangements themselves. It is thus interesting to note that 27% of respondents strongly agree and 40% tend to agree that the online intermediary saves them time when searching for information and booking online. At the same time, a large percentage of respondents (74%) agreed with the statement that it is easy to find specific travel information online. The combination of the Internet being able to save time in terms of searching and booking, and confirmation that finding information is considered to be "easy", is an indication that technology (in terms of booking online) plays an essential role in choice of intermediary. The functionality of the Internet in providing electronic reviews is highly popular, with 76% of respondents indicating a preference towards booking online. Technology has made it possible for business to function beyond the normal (08:00 or 09:00 to 17:00) business hours. The majority of respondents (25% in strong agreement and 38% tending to agree) enjoy being able to conveniently and at their own time perform travel searches and do bookings.

Best deal and price, and their role in traveller decision-making: Technology enables travellers to compare prices and "shop around" with ease. Price is an essential aspect in travel decision-making, and this was subsequently pointed out by the frequency results from the study. It is at times commonly assumed that the ability to search for flights or hotels online inevitably result in a cheaper flight or hotel night. Results from this study do not point to a different outcome, even though the percentage of respondents in strong agreement (26%) with the statement: "The Internet is cheaper than travel agents," is a little lower than what would have been predicted. A large percentage of respondents (37%) do however; tend to agree with the statement that the Internet is cheaper. Travellers are price sensitive, as indicated by results of the statement from the questionnaire: "I compare prices travel agents and online companies offer and book where it is cheapest," where 72% of respondents agreed that they do make price comparisons. The cheapest option is subsequently chosen, i.e. not necessarily the most secure or convenient option. Technology once again makes it possible for travellers to perform relatively quick searches in their quest for the cheapest option. South

Africa's cost of Internet connection and data use is relatively high compared to economically developed countries (Khumalo, 2013; Shinn, 2013). Khumalo (2013) points out that home internet access is too expensive for most South Africans, and that mobile access options tend to be unaffordable. Given this situation, a statement investigating whether the cost of downloading data is an important consideration when booking online, was included in the questionnaire. The high cost of data download being influential, is to a certain extent validated by the results that 19% of respondents strongly agree and 21% tend to agree that data download cost is important in deciding between booking online or through a travel agent. Buhalis and Licata (2002), Del Chiappa (2013), and Mayr and Zins (2009), pointed out to the price of service playing important roles for consumers making travel decisions.

The original traditional method of providing travel products or services to consumers is that of a wholesaler offering a product or service to a travel agent, who acts as an intermediary (retailer) in the process. This method is characterised by strong relationship building efforts on both the wholesaler and travel agent's part in offering the best product at the "best" price to the traveller. Respondents' opinion regarding the ability of travel agents to offer products or services at special, negotiated rates was tested by the statement in the questionnaire – "Travel agents have special, negotiated rates with airlines/hotels, saving me money". Interestingly, the majority of respondents (61%) agreed that travel agents offer special rates, resulting in a saving. Travellers could assume that travel agents utilise contacts and strong relations with airlines and/or hotels resulting in superior, negotiated rates. Another statement purposefully followed to assess travellers' opinion with regard to travel agents being biased in promoting travel products or services where they could earn higher commission. This statement reads: "Travel agents do not offer the best "deal" and are biased in promoting products/suppliers that offer them higher commission". Most respondents (35%) strongly agreed or tended to agree with the statement. Given these results, it could be assumed that consumers still believe that they save money booking through a travel agent regardless of travel agents potentially favouring suppliers where they earn higher commission.

Personal contact and its role in traveller decision-making: To travel is a highly sociable experience – travellers connect to different cultures and experiences and the identity of travel is subsequently shaped by human interaction, whether during the booking process or in the actual holiday encounter. The emergence and rapid expansion of technology have challenged the notion of empathy being relevant in the modern age, particularly with regard to booking a holiday. Many consumers are experienced and in favour of making online purchases, cutting out the human element which could lead to empathy in the booking process. The sales growth of low cost carriers worldwide is an example of the confidence in booking online. Results emphasise the continued importance of the empathy factor in the travel industry. Despite the apparent growth of online bookings, 34% of travellers strongly agreed and 31% tended to agree that personal contact with a travel agent is important. The majority of respondents agreed with making use of a travel agent, due to travel agents being able to provide ancillary services such as assistance with visa applications or obtaining foreign exchange. Even though travellers trust information obtained online, the personal contact and aspect of empathy are still important factors to consider.

It is far easier for an online booker to depart from a potential online booking when, for example, he or she is not being interested in the booking anymore. It was subsequently expected that consumers could potentially feel that travel agents come across as pressurising them into a booking in comparison. Results are fairly evenly distributed, with the majority of respondents (29%) tending to disagree with such a statement. The experience and atmosphere of dealing with a travel agent can generally be ascribed as being positive, considering that 59% of respondents agreed that they enjoy the atmosphere of booking through a travel agency. A large percentage of travellers require expert advice, whether through a travel agent or online through a travel review column in making travel decisions. 32% strongly agreed and 32% tended to agree with the statement: "I need expert advice in choosing between hotels or airlines". Cheyne et al. (2006) discussed the level of empathy, and Austin et al. (2006) discussed the assurance in the booking intermediary playing important roles for consumers making travel decisions.

5. Conclusion

This study therefore accepts the posited hypothesis that travellers make leisure travel arrangements online or through travel agents for different reasons. Four main factors were identified as having an impact on traveller decision-making: a) trust, b) convenience and technological adoption, c) best deals and price and d) personal contact. The issue of trust constantly ranks amongst some of the most important factors in travel decision-making and was examined in the study with specific purpose – that of determining whether trust is important in travellers choosing between travel agent and Internet when making bookings. The travel agent relies heavily on human involvement in the decision-making process. The ability to offer ancillary services is an example of the human component the travel agent brings to the relationship aspect. The Internet is unlikely to be able to group ancillary services together in a similar way. Travel agents need to build on their advantage of being able to deal with customers personally. Personal contact is a vital aspect of trust and many travellers make use of travel agents for the precise reason. Travel agents perceive to have an advantage over the Internet in terms of transactional trust since they are able to group transactions and assume payment risk. Trust in the online travel intermediary is an on-going concern to travellers. Information overload, transactional scams and the lack of personal contact stand in the way of online trust. Online intermediaries need to focus on building a strong, reliable, well-known brand – a website where travellers trust the information and the safety of transacting. The development of live online chat capabilities has the possibility of bridging the issue of personal contact through the creation of interactive communication.

The Internet makes it possible for travellers to research holiday options, read reviews and view photos of holiday destinations. 76% of respondents acknowledged their preference to making use of the Internet due to its ability to fulfil the afore-mentioned function. The result is in line with research by Del Chiappa (2013), where the author found that 64.8% of respondents changed their hotel accommodation after having read online reviews. Verma, Stock and McCarthy (2012) supported Del Chiappa's finding where it was found that a negative hotel review lead to a decrease in probability of booking a hotel. Respondents indicated a 2 out of 5 probability of booking a negatively reviewed hotel. The aspect of shopping enjoyment in the form of interacting with a travel agent is very important to some travellers. Results of this study correspond with the results of Morgan, Pritchard & Abbott (2001), with 59% of respondents agreeing that they enjoy the atmosphere of dealing and booking through a travel agency. This is not due to a lack of access to technology. 92% of respondents have access to a computer and 69% have made travel bookings online in the past. The issue of whether technology is busy taking over the role (and future) of the travel agent is a heavily debated one in literature and in the marketplace. Technology is advancing at a rapid pace, making it possible for travellers to book complete holidays online, without the assistance of a travel agent. The argument is thus not whether the technology is developed yet, but rather whether it will be adopted. The nature of trade is that of a seller offering a product at a certain price and the buyer deciding whether to purchase or not. A buyer will purchase if there is a need being fulfilled by the transaction. Price can be seen as one of the most primitive and traditional factors influencing any type of purchase. It is thus not surprising to find price as a factor influencing traveller decision-making. The ability to compare prices is significantly influenced by complexity, implicating that a complex booking involving for example international flights and hotels make price comparisons more difficult than a simple point-to-point flight booking. 63% of respondents to this study registered a belief that the Internet is cheaper than travel agents. 61% of respondents believed that travel agents had specially negotiated rates, saving them money.

Within the context of travel intermediary, empathy relates to personal contact in that travel agents are able to discuss and share travel ideas and impart travel knowledge and tips. The emergence and rapid expansion of technology have however challenged the notion of empathy being relevant in the modern age, particularly with regard to booking a holiday. Many consumers are experienced and in favour of making online purchases, eliminating the human element in the booking process. Del Chiappa (2013) made the surprising finding that respondents to his study did not agree that travel agents offer superior services in terms of human touch. A study by Mayr and Zins (2009) further found that those preferring to book online show noninterest in building lasting relationships with a travel agent and are purely interested in convenience. This result stands in contrast with the 64% of respondents in this study agreeing with the statement: "I enjoy personal contact with a travel agent – sharing ideas and suggestions," which was in turn supported by Bogdanovych, Berger, Simoff and Sierra (2006), where 78% of respondents indicated that social experience with a travel agent was

important. The importance of personal contact with a travel agent could relate to South Africa portraying a "high context" culture, where significant value is placed on social interaction. The human element and interaction, being able to sit down, discuss and share ideas regarding flights, hotels or destinations, are still important to travellers in South Africa. Many factors influencing travel decision-making are interrelated and dependent on each other. It is, for example, very difficult to adopt technology without a degree of trust in the technology itself or the provider of technology. Another example is the aspect of empathy and how personal contact impact on the trust factor in the decision-making process. Familiarity with a travel agent or Internet site often creates higher levels of trust. It is clear that the multi-dimensional nature of decision-making is of particular importance to a travel agency, online managers and marketers. Attempts to isolate a service, such as an air ticket, and to expect, for example, price to be the sole factor a traveller will consider when making a booking, is potentially fatal in any management strategy.

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Structural Breaks, Stability and Demand for Money in South Africa

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Abstract: The paper tests the null hypothesis of a stable long-run money demand in South Africa over the period 1970-2013. We employ the Gregory-Hansen (GH) method to test for the possibility of structural breaks in the money demand function. The Johansen Maximum likelihood procedure is carried out to determine the cointegration vector from which existence of one cointegrating vector is supported. Also based on the GH criterion, there is existence of one cointegrating vector. GH proposes three structural breaks for the money demand function. Results suggest that endogenous breaks occurred in 1991 and 1994. The GH cointegration equations reject M1 whilst M2 and M3 pass and we proceed to estimate the error-correction model. Complemented by the CUSUM and CUSUM of squares, the tests carried out suggest that monetary policy shifts did not introduce instability.

Keywords: *Structural break, Money demand, Cointegration, error correction*

1. Introduction

The money demand function is crucial in the conduct of monetary policy in many economies in the world. One such important application is in the alignment of money supply consistent with targets in real economic growth and inflation (Wesso, 2002). As such studies on structural breaks and money demand functions continue to receive interest amongst researchers as they try and unlock the understanding behind the conduct of monetary policy. Many countries moved from use of direct monetary instruments post financial market developments. South Africa's financial sector also went through changes including credit controls, exchange rate and political; all of which affect its conduct of the monetary policy. Furthermore financial innovation has also been at the core of the changes. It therefore merits the case to test for stability in money demand post financial innovation and as well test as to whether there was a structural change. This also comes a time when interest rates have been at record low post global financial crisis. A question to reflect on will be; is the money demand function still stable? This also allows us to gauge the feasibility of price stability objective as the case in South Africa.

A number of studies have been considered for investigating money demand stability. However in these studies, contributing to mixed empirical findings have been different methodology, data frequency and even choice of variables. Dube (2013), Mutsau (2013), Tlelima and Turner (2004), Nell (2003), Johnson (2001) and Moll (2000) all estimated the money demand in South Africa using different approaches with different variables and data frequencies. At the same time they considered different monetary aggregates.
For instance Dube (2013) considered a Shopping-Time Technology and an ADL model testing for a stable long-run relationship between M3 and its determinants such as income, interest rates, inflation, and stock market prices. The results suggest a cointegration relationship between M3 and its determinants. Another interesting finding is the stock prices as a determinant. However the introduction of a dummy variable to capture inflation targeting turned out insignificant. Hall et al. (2009) associate the changes in M3 to changes in real wealth. However the difficulty in sourcing accurate wealth data poses a challenge in including it as a variable in the money demand function. Mutsau (2013) used an Autoregressive Distributed Lag (ARDL) approach for the money demand model. The results suggested cointegrating relationships for M2 and M3 and that money demand has remained stable.

This study contributes to knowledge in the field on a methodological approach in modelling money demand and as well to find answers considering mixed results from literature using annual data from 1980-2013. We also test for stability of money demand for different aggregates of money supply. This enables us to find a justifiable representation of the monetary aggregates. In this we consider M1, M2 and M3. Furthermore the study determines choice variables have the best combination in obtaining meaningful results. The study employs the GH cointegration methodology for structural breaks together with Johansen Maximum likelihood procedure to capture the presence of cointegration amongst variables. The major motivation for the GH

procedure is that it allows one to test for cointegration when regime shifts are present in the data used since conventional approaches may lead to erroneous conclusions (Gregory et al., 1996). Furthermore, the GH approach is designed to be robust when there is a shift in the cointegrating vector. Other researchers have found the GH to be favourable especially when there are less frequent breaks (Gabriel and Martins, 2010); this is the case for South Africa. The data used in this study covers different regimes in the economy. As such the method permits changes in the intercept or slope coefficients. Furthermore, we make a specification for the money demand function wherein demand for money as a function of interest rate and real output fares best. Results suggest that the money demand function is still stable covering tumultuous periods in the financial markets. The remainder of the paper is structured as follows; section 2 presents literature review, Section 3 data characteristics and methodology. Results are presented in section 4 and section 5 concludes.

2. Literature Review

Economic theory posits the use of money supply as a target by the central bank towards realising output growth and reigning on inflation. Most importantly, a stable money demand function is positive for the attainment of these goals. It serves well that the relationship between money demand, real income, interest rates and exchange rates has captured interest amongst researchers in formulating the money demand function. Other studies have stressed the importance of a stable money demand function in an era of inflation targeting (see for example Hayo, 1999). It is assumed that as real GDP increases; the demand for money will also increase, supporting a positive relationship. Furthermore, when the price level increases, real money demand for transactions is expected to increase as well. Demand for money negatively relates with nominal interest rates. A number of studies have examined money demand stability with different considerations for the money demand function.

Literature has shown the use of various aggregates and their components for money demand. Akinlo (2006) applied the autoregressive distributed lag (ARDL) technique to examine the cointegrating property and stability of M2 for Nigeria. The findings from the study showed M2 to be cointegrated with income, interest and exchange rates. Inoue and Hamori (2008) for their study in India deduced that equilibrium relation exists when money supply is defined as M1 and M2 with cointegration results suggesting a cointegrating vector. The results for the money demand function in South Africa are somewhat mixed. Nell (1999) carried out a research on the existence of a stable long-run demand for money in South Africa. Results from the research showed that M3 was stable whilst M1 and M2 were unstable. Duca and VanHoose (2004) in their study highlight the unstable nature of M2.Related studies for South Africa verify the use M3 in the money demand function (Wesso, 2002; Stals, 1997; Mohr and Rogers, 1995). However, Tlelima and Turner (2004) and Johnsson (1999) both find parameter instability in the money demand function. Moll (2000) using M3 as a monetary aggregate applied general to specific specification for a money demand function and found that the parameters were stable and there was no evidence of structural change.

Studies also detail interest rate as an important variable affecting money demand function though with differences on choice between nominal and real interest (Apergis, 1999; Poole, 1970). Foreign indicator variables like the exchange rate and foreign interest rate have also been considered to play a role in the money demand function (Chowdhury, 1997; Carruth and Sanchez-Fung, 1997). Another prominent feature has been the consideration of the government bond yield as an opportunity cost proxy (Anderson and Duka, 2013; Wesso, 2002; Nell, 1999; Anwar and Asghar, 2012; Carstensen, 2004). Wesso (2002) and Brand et al. (2002) use time varying parameters (TVP) regression in investigating the stability of money demand for South Africa and euro area respectively. The findings suggest that the model can be considered for periods when the economy undergoes structural changes.

3. Data Characteristics and Methodology

Annual time series data from 1970-2013 is used, sourced from World Bank and the South African Reserve Bank (SARB).The money supply proxies in M1, M2 and M3 were scaled by the GDP deflator to get the real money supply. For short term nominal interest rate we used the bond yield rate as an opportunity cost proxy. Real GDP was sourced from the SARB. All variables used are in logarithmic form, except for interest rate. We used three model specifications initially to estimate the demand for money in the South African scenario.

Below we specify the equations followed and also give a brief review of the GH methodology. For the data in use, logarithmic representation was considered for money demand, CPI, real GDP and interest rates. The relation can be expressed as follows;

$$\frac{M_t}{P_t} = L(Y_t, r_t) \quad (1)$$

M_t is nominal money supply;

P_t is the consumer price index;

Y_t represents real GDP and

r_t is the appropriate nominal interest rate

Within this model, the coefficient of Y is expected to bear a positive sign and we anticipate a negative sign for the coefficient of r. Our preference for nominal interest rates is that they show less variability when compared to the real interest rate brought about by inflation.

The logarithmic representation of (1) becomes thus;

$$\ln M_t - \ln P_t = \alpha_0 + \alpha_1 \ln Y_t + \alpha_2 \ln r_t + \varepsilon_t \quad (2)$$

The Gregory-Hansen Methodology: Gregory and Hansen's (GH) (1996a and 1996b) approach allows one to test for structural breaks. The method propounded allows residuals-based tests of the null hypothesis of no cointegration for the variables which areI(1) in the presence of structural breaks against the alternative of rejecting the null hypothesis. The GH methodology extends the Engle-Granger (1987) cointegration specification and thus is a multivariate extension of the univariate tests of Perron and Vogelsang (1992) and Zivot and Andrews (1992). Thus the GH approach allows one to test the presence of cointegration among variables given that they are I(1) with the regime change in the long run relationship at an unknown point. GH proposes four model specifications to take into account structural breaks in the cointegrating relationship. Specifications for the models are as set below;

$$Y_t = \alpha_0 + \delta_0 X_t + \varepsilon_t \quad (3)$$

The first model, equation (3) is the standard cointegration where Y_t represents a scalar variable and X_t is a vector of explanatory variables, ε_t is the disturbance term. The second model is the level shift denoted by C and is presented as;

$$Y_t = \alpha_0 + \alpha_1 \varphi_{tk} + \delta_0 X_t + \varepsilon_t \quad (4)$$

Where α_0 represents the intercept before the shift and α_1 is the change in intercept at the time of the shift. *k* is the break date and φ is a dummy variable such that:

$$\varphi_{tk} = \begin{cases} 0, & \alpha v \quad t \le k \\ 1 & \alpha v \quad t > k \end{cases}$$

The third model is the level shift with a trend, denoted. by C/T

$$Y_t = \alpha_0 + \alpha_1 \varphi_{tk} + \beta_1 t + \delta_0 X_t + \varepsilon_t \quad (5)$$

Where β_1 is the time trend coefficient

Lastly, the final model below allows for regime shift in the parameter of cointegrating vector

$$Y_t = \alpha_0 + \alpha_1 \varphi_{tk} + \delta_0 X_t + \delta_1 X_t \varphi_{tk} + \varepsilon_t \quad (6)$$

Here δ_0 and δ_1 denotes the cointegrating slope coefficient before the regime shift and the change in the slope coefficient respectively.

GH (1996b) built the statistics for the tests; ADF*, Z_α^* and Z_t^* which correspond to the traditional ADF test and Phillips test for unit root on residuals. In this application the null hypothesis of no cointegration with structural break is tested against the alternative of cointegration in the GH case. Furthermore, GH tabulated

the critical values by modifying the Mackinnon (1991) procedure wherein the null hypothesis is rejected if the statistic ADF*, Z_{α}^{*} and Z_{t}^{*} is less than the critical value.

The GH criterion is superior to unit root test in that variables are more likely to have different structural break dates and therefore making it difficult to test the null of no cointegration with regime shift. Furthermore, in analysing the long term behaviour of variables, GH performs better than generic cointegration tests. GH tests are residual based and the null hypothesis of no cointegration corresponds to a unit root in the OLS residuals of models C, C/T, C/S and C/S/T. The logarithmic representations for the GH with structural breaks are as follows;

$$\ln M_t = \alpha_0 + \beta_1 \ln Y_t - \beta_2 \ln r_t - \varepsilon_t \quad (7)$$

$$\ln M_t = \alpha_0 + \alpha_1 \varphi_{tk} + \beta_1 \ln Y_t - \beta_2 \ln r_t + \varepsilon_t \quad (8)$$

$$\ln M_t = \alpha_0 + \alpha_1 \varphi_{tk} + \delta_0 t + \beta_1 \ln Y_t - \beta_2 \ln r_t + \varepsilon_t \quad (9)$$

$$\ln M_t = \alpha_0 + \alpha_1 \varphi_{tk} + \beta_1 \ln Y_t + \beta_{11} \ln Y_t \varphi_{tk} - \beta_2 \ln r_t - \beta_{22} \ln r_t \varphi_{tk} + \varepsilon_t \quad (10)$$

Vector Error Correction Model: Variables are cointegrated before consideration of a Vector Error Correction Model (VECM). The relationship of a VECM includes the lagged value of the residual from cointegration together with stationary variables as part of explanatory variables.

4. Results and Discussion

The section presents the unit root test, cointegration and error correction model results. To avoid spurious regression we check whether the variables have a unit root.

Stationarity Results: The unit root tests in table 1 show that the null hypothesis of unit root cannot be rejected in levels but is rejected in first differences as seen in both the PP and DF-GLS tests. We can conclude that the variables are stationary with first differencing.

Table 4: Unit Root Test Result

Variables	PP[2] test (with trend and intercept)		DF-GLS test [3](with trend and intercept)	
	Levels	1st Diff	Levels	1st Diff
Y	-1.332	-4.433***	-1.739	-4.56***
M_1/p	-3.358*	-6.9***	-2.454	-6.323***
M_2/p	-3.521*	-8.338***	-2.64	-6.266***
M_3/p	-3.634**	-10.434***	-2.713	-6.463***
Inflation	-3.41*	-11.521***	-2.59	-5.967***
R	-1.543	-10.597***	-1.822	-5.79***
Yield on bond	-1.753	-17.444***	-1.835	-7.137***

* ** *** stationary at 10% , 5% and 1% levels of significance respectively

Cointegration Results: Where variables in the model are non-stationary and only become stationary with first differencing, it becomes necessary to perform a cointegration test to determine whether a linear combination of the variables does converge to equilibrium. In this regard we applied Johansen and Juselius (1990), Johansen (1988) and the GH (1996a) representation.

[2] Phillips and Perron(1990)
[3]Dickey and Fuller (1979)

Johansen's Cointegration Results

Table 5: M2 Johansen-Juselius maximum likelihood cointegration tests

LM	Trace Test			Maximum Eigen value Test		
Null Hypothesis	Alternative Hypothesis	Statistic	95% Critical Value	Alternative Hypothesis	Statistic	95% Critical Value
r=0	r≥1	34.8	29.8	r=1	20.69	21.13
r=1	r≥2	14.1	15.49	r=2	13.15	14.26

Table 6: M3 Johansen-Juselius maximum likelihood cointegration tests

LM	Trace Test			Maximum Eigen value Test		
Null Hypothesis	Alternative Hypothesis	Statistic	95% Critical Value	Alternative Hypothesis	Statistic	95% Critical Value
r=0	r≥1	30.25	29.8	r=1	21.36	21.13
r=1	r≥2	8.89	15.49	r=2	8.54	14.26

The test statistics reject the null hypothesis of no cointegration at 5 % significance level for both M2 and M3. The results suggest the presence of one cointegrating vector in both scenarios. This confirms the long run relationship between money demand, real GDP and interest rate over the sample period 1980-2013.

Gregory-Hansen Cointegration Results: Tables 4-6 present the cointegration results for the three models of GH with structural breaks for all proxies of money supply,M1, M2 and M3. For M1, the null hypothesis of no cointegration is rejected in the second model case of level shift with trend. For M2 the null hypothesis of no cointegration is rejected for models I and II. For M3 the null hypothesis is rejected for all models I-III. Results suggest endogenous breaks in 1991 and 1994 for both M2 and M3 monetary aggregates. It should be noted that the prominent break date of 1994 identifies with a period shortly after when trade sanctions on South Africa were removed. More positives can also be seen in the economy dominating the African scene, consistently attracting global FDI, hosting one of the leading stock exchanges in the world, inflation contained within target and pro-GDP growth monetary policy instruments.

Table 7: M1Gregory-Hansen Cointegration Test Result [4]

Model1	Break date	G-H test statistic	5% critical value
GH-I	1992	-4.64	-4.92
GH-II	1995	-5.86***	-5.29
GH-III	1992	-5.05	-5.5

Table 8: M2 Gregory-Hansen Cointegration Test Result

Model2	Break date	G-H test statistic	5% critical value
GH-I	1991	-4.82*	-4.92
GH-II	1994	-6.26***	-5.29
GH-III	1992	-5.12	-5.5

Table 9: M3 5Gregory-Hansen Cointegration Test Result

Model3	Break date	G-H test statistic	5% critical value
GH-I	1991	-5.1**	-4.92
GH-II	1994	-6.29***	-5.29
GH-III	1992	-5.39*	-5.5

[4] Gregory and Hansen's critical values are a modified version of the work by Mackinnon (1991)
[5] Nominal values for M1, M2 and M3 scaled by GDP Deflator

Table 10: M1 Cointegrating Equations

Variables	GH-I (1998)	GH-II (1981)	GH-III (1998)
Intercept	-106.39(-15.67)***	47.95(2.38)**	-108.07(-15.29)***
Trend		0.24(7.85)***	-
Break Date Dummy	-1.22(-2.9)**	-0.08(0.25)	71.26(0.84)
Y	8.3(16.32)***	-3.15(-2.11)	8.44(15.83)
Break Date Dummy*Y			-5.01(-0.87)
Govt Bond yield (lb)	-0.18(-0.66)	-0.25(-1.42)	-0.28(-0.90)
Break Date Dummy*lb			-0.18(-0.14)

* ***

Table 11: M2 Cointegrating Equations

Variables	GH-I (1991)	GH-II (1990)	GH-III (1991)
Intercept	-99.93(-16.42)***	42.15(2.45)**	-101.48(-16.04)***
Trend		0.22(8.44)***	
Break Date Dummy	-1.08(-2.87)**	0.12(0.43)	66.37(0.87)
Y	7.88(17.29)***	-2.66(-2.08)**	8(16.78)***
Break Date Dummy*Y			-4.66(-0.9)
Govt Bond yield (lb)	-0.11(-0.44)	-0.17(-1.15)	-0.2(-0.72)
Break Date Dummy*lb			-0.18(-0.15)

From the results of the cointegrating equations in tables 7-9, equation II for M1 rejected the null hypothesis of no cointegration however the corresponding cointegrating equation bore wrong sign for real GDP. For M2 equations I and II rejected the null hypothesis of no cointegration though the most plausible cointegration equation corresponds to equation I as it has expected signs and magnitudes. The real GDP elasticity of demand for money is 7.9 at 1% level, and the rate of interest elasticity of demand for money is 0.11. Finally for M3, all three GH equations rejected the null of no cointegration. However, cointegrating equations I and III have expected signs with real GDP elasticity of demand at 7.3 and 7.5 respectively at 1% level. The rate of interest elasticity of demand for money is at 0.2 and 0.28 respectively. Since for M1 the cointegrating equation bore incorrect signs, we therefore proceed to use the residuals for M2 and M3 obtained in the cointegrating equations to estimate the short run dynamic equation for the demand for money with the error adjustment model.

Table 12: M3 Cointegrating Equations

Variables	GH-I (1991)	GH-II (1994)	GH-III (1992)
Intercept	-92.15(-16.84)***	30.92(1.88)*	-93.45(-16.39)***
Trend		0.19(7.64)***	
Break Date Dummy	-0.88(-2.59)**	0.16(0.62)	54.89(0.80)
Y	7.3(17.9)***	-1.78(-1.45)*	7.46(17.34)***
Break Date Dummy*Y			-3.85(-0.83)
Govt Bond yield (lb)	-0.20(-0.90)	-0.26(-1.79)	-0.28(-1.12)
Break Date Dummy*lb			-0.13(-0.12)

Error Correction Models: In getting the short term ECM model we applied the LSE-Hendry general to specific modelling framework (Hoque and Al-Mutairi, 1996; Miller, 1991). To obtain the model the regression used differenced series of money demand (M) on differenced series of real GDP, interest rates, their lagged terms and with lagged terms of M. Using the LSE-Hendry methodology we reduced the number of lags across variables to get the best model. The culmination of this exercise resulted with the following parsimonious models;

Results for M2 for most coefficients are statistically significant. The coefficient of interest rate has the correct sign. Real GDP is significant at 5% level suggesting that a 1% increase in real GDP will result with money demand increasing by 1.1%. This confirms theory and empirical findings for South Africa that real GDP positively relates with money demand (for example Dube, 2013). Incorporating short-term dynamics in the

error correction model we included the lagged M2 which turned out significant at 5%. The error correction term also bear the correct sign though with a speed of adjustment at 5%. The low error correction term might suggest the smoothing in M2growth which however is not observable in M3. This may also mask the unsuitability of the M2 aggregate as consensus literature supports M3. Crudely, the implication for the result is that for departures from equilibrium in the previous period, the current period corrects 5% of departures. For M3, the coefficient of interest rate is significant at 5%, highlighting the opportunity cost of holding money. Over the past years South Africa's government bonds have attracted attention locally and even internationally. The result also supports postulations in theory. However, real GDP is insignificant. The speed of adjustment for the error correction term is higher than for M2 at 18%, suggesting 18% current period corrections from departure in equilibrium in the [previous period. The model was also run with structural break dates. Though positive, the break date parameter was insignificant. This then confirms previous studies in South Africa highlighted in the literature which did not deuce structural breaks.

Testing the stability demand for money: Testing for the stability demand for money is important since the supply of money is one of the key instruments of monetary policy conduct by SARB. If for instance, the demand for money is stable then money supply can be considered suitable as a policy tool but if money demand function is not stable then the central bank can use interest rates as an appropriate tool for monetary policy. We applied the conventional methods to test for stability in the demand for money including the CUSUM, CUSUM of squares and recursive residuals. The plots for these are given in figures 1 and 2in the appendix. From the plots the demand for money function over the period 1970-2013 is stable.

Table 13: Regression Results[6]

Variable	ΔM2	ΔM3
Constant	0.075 (3.39)**	0.124 (2.09)**
Δi_{-2}	-0.04 (-1.11)	-0.63 (-3.49)**
ΔLGDP	1.115 (2.87)**	-
$\Delta LGDP_{t-2}$	-	0.39 (0.22)
$\Delta LM2_{t-1}$	0.36 (2.77)**	-
$\Delta LM3_{t-2}$	-	0.072 (0.56)
ECT(-1)	-0.05 (-2.73)**	-0.184 (-1.91)*
Break Date 1994	-	-
R^2	0.49	0.34
Adjusted R^2	0.35	0.28

[6] Incorporating the beak in the error correction model weakened the results and as such here we present results without the dummy variable for the structural break. The CUSUM and CUSUM of squares in the appendix also does not suggest structural breaks

SE of regression	0.20	0.24
Sum of squared resid.	1.14	1.01
Log likelihood	43.85	41.64
F-statistic	6.2	5.1
Prob.(F-statistic)	0.005	0.003
Mean dependent var.	0.16	0.17
S.D dependent var.	0.22	0.27
AIC	0.21	0.14
Hannan-Quinn crit.	-0.13	-0.32
DW	2.01	1.7

1.
2.

5. Conclusion and Recommendation

The study attempted to determine the existence of long-run equilibrium money demand function in South Africa over the period 1970-2013. The study was informed by the fact that South Africa underwent structural changes over the past three decades including the relaxation of exchange controls in the economy. As such these changes might have impacted the money demand function, making it unstable. To test this we employed the Johansen maximum likelihood procedure and the Gregory and Hansen tests, testing for possible structural breaks and estimating cointegration vectors. Furthermore, the error correction representation investigated the departure from equilibrium using two different proxies for money supply. From the results, money demand function is stable for South Africa over the study period. Cointegration results from the Johansen method show that there is one cointegrating vector both for M2 and M3 as proxies of money supply. For the Gregory and Hansen approach, the prominent endogenous structural break is 1994 for M2 and M3. This period coincides with trade sanctions lifted against South Africa. This paved way for liberalisation in the economy and financial innovation. Furthermore this translated to the adoption of a more flexible exchange rate as one of prudential macroeconomic fundamentals in South Africa. Results from cointegrating equations support M2 and M3 as they had expected signs. The error correction model representation shows a non-explosive adjustment to equilibrium at 5% and 18% for M2 and M3 respectively. Stability results based on the error correction model show that the demand for money in South Africa is stable for the sample period. Overall, M3 fared better in cointegration equations. In a way this suggests that financial innovations in South Africa have contributed to stability even in an era of inflation targeting. We can conclude that there is no evidence of structural change in the money demand relation

Monetary policy plays a pivotal role in an economy. As part of the major objectives of monetary policy is price stability. However, the evolution and development of the financial market has brought about volatility in the demand for money function. It is therefore important that appropriate levels of money supply are kept to balance the functioning of an economy. Results from the study point out that the conduct of monetary policy necessitates reliable quantitative estimates of money demand function. It would be advisable that the monetary authorities maintain the current stable levels in the monetary aggregate. A future extension of this study can consider time varying parameters with inclusion of additional explanatory factors as informed in the literature.

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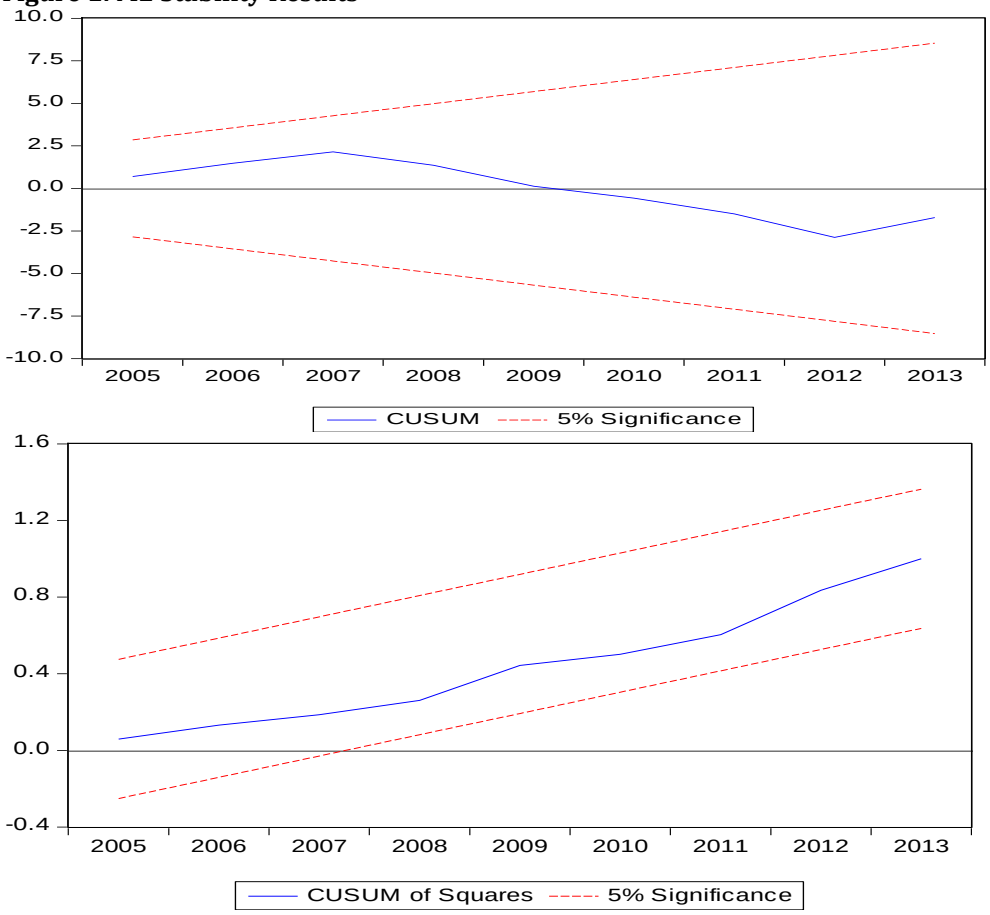
Figure 1: M2 Stability Results



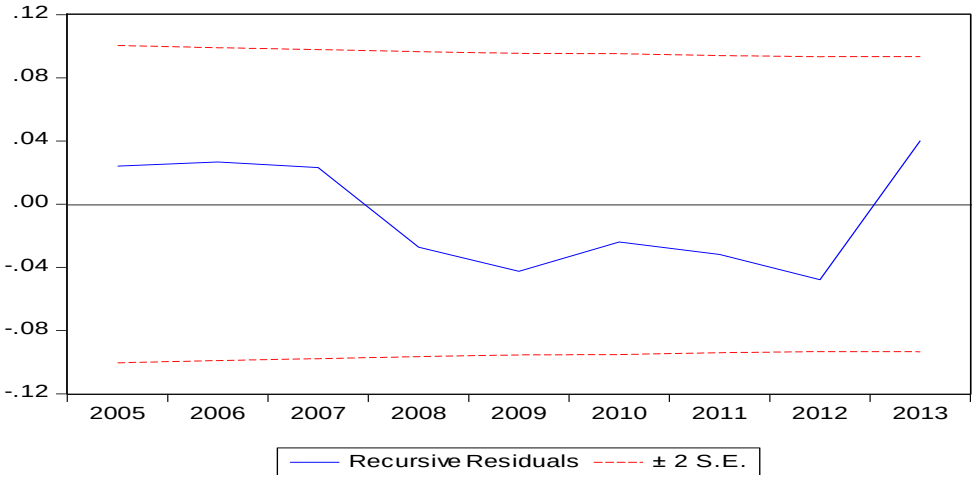
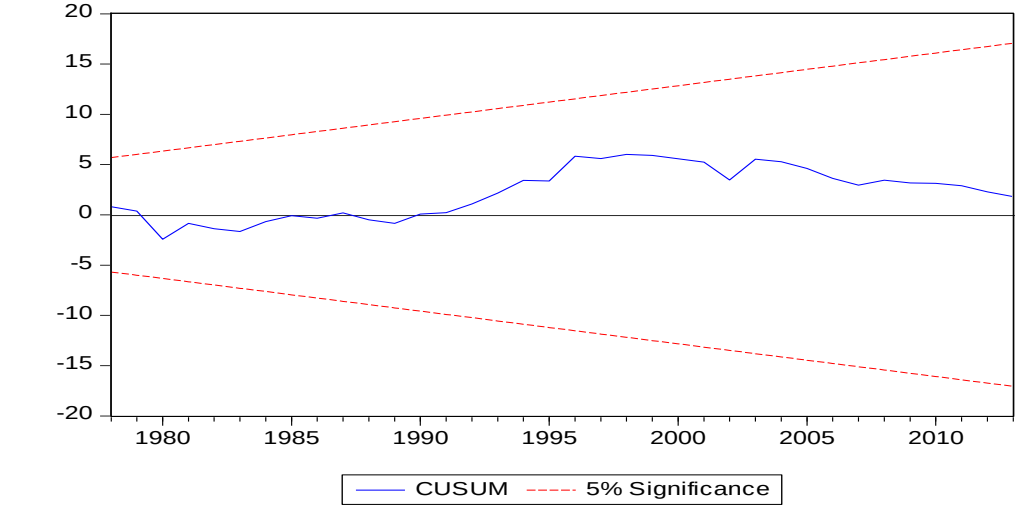
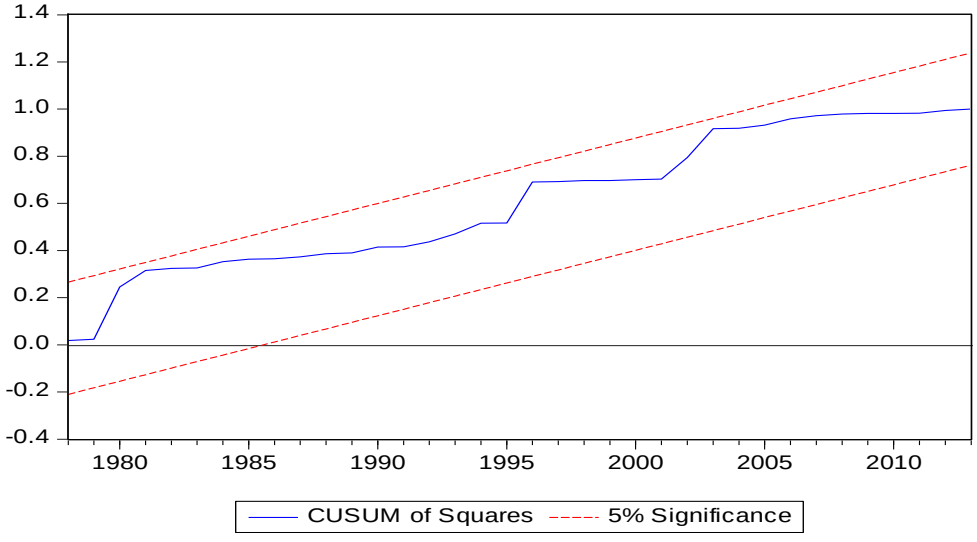


Figure 2: M3 Stability Results



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The Role of Financial Intermediaries in the Internationalization of Capital Markets in Kenya: A Study of stock brokers in Kenya

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Abstract: Financial intermediaries continue to play a big role in the internationalization of capital markets. In Kenya all transactions in the Nairobi Securities Exchange must be carried out by an authorized stock broker. This study covered the stockbrokers and their role in the internationalization of capital markets within Kenya. The study adopted a descriptive survey. Population of interest comprised of 19 stockbrokerage firms licensed to operate at the Nairobi Securities Exchange (NSE). The study findings indicate that stock brokers contribute to the internationalization of capital markets through their roles in facilitating cross-listing, off-shoring and foreign investor by aiding in sourcing for investment opportunities, provision of relevant information and transaction facilitation. Study findings further reveals that the government issues, lack of awareness and knowledge on innovative strategies, adequate financial resources, availability of adequate infrastructure and trading costs affects stock brokers role in the internationalization of capital markets. The study recommends that the government and policy makers should direct efforts towards addressing the various bottlenecks that hinder the effectiveness of the stock brokers in the internationalization of capital markets in Kenya. Further, towards realizing efficiency and effectiveness these firms need to embrace technology and innovation.

Keywords: *Stock brokers, capital markets, internationalization, cross-listing, foreign investment, off-shoring*

1. Introduction

From the late 1990's, there has been unprecedented deregulation of financial market processes as well as globalization of financial markets. Developed and developing countries have therefore unwrapped their financial systems, permitting foreign competition and the free transition of capital across borders. Europe has particularly witnessed great strides towards financial liberalization that has seen the abolishing of capital controls and the adoption of Single Market programs (Sparrow, Farndale & Scullion, 2013). They say this had the aim of levelling the platform against which financial institutions and brokers could engage in. Ultimately, such developments have fostered markets integration towards the internationalization of Capital Markets. Capital markets promote economic efficiency by channelling money from those who do not have an immediate productive use for it to those who do at a gain (Bluhm, Harman, Lee & Mitchell, 2011). Stocks and bonds markets are the two major commodities in the Kenyan capital market. Although by regional standards, Kenya's financial system is relatively well developed and diversified, major structural impediments prevent it from exploiting its full potential especially in the internationalization of its capital markets and as facilitated by stockbrokerage firms (Benito, Petersen & Welch, 2009). Cross-country comparisons, however, show the importance of a well-developed financial sector for long-term economic growth through the internationalization of Kenya's capital market. Analyzing and decomposing the high interest rate spreads and margins in Kenya helps identify structural impediments that drive the high cost and low access of financial services such as the capital markets (Fonfara, 2011).

Kenya makes a vital case study for evaluating the success of financial sector reforms in a developing country. In this respect, it is listed among one of few studies, which conduct an analysis on the effect of reforms on the level of competition within the financial context in Africa. However, there are concerns that the recent reforms, especially the consolidation within the banking context, may have provided a result of a sound, yet still uncompetitive system that could fail in delivery on a greater access and financial strengthening, despite the fact that profits could go up. If the Kenyan Capital Market is anything to go by in terms of its internationalization, the fact that foreign investors have been the major force of share price increase in the recent past is an indicator that financial brokers are evidently doing something due to the fact that these activities occur through them (Mugwe, 2012).

Stockbrokers continue to play a big role in the internationalization of capital markets, particularly in Kenya since all transactions in the Nairobi Securities Exchange must be carried out by an authorised stockbroker. The level of internationalization in the Kenyan capital market is a problem that has affected adversely the levels of revenues earned within the international market. Various studies have been carried out on capital markets as well as internationalization in general with a focus on various angles. Trąpczyński & Wrona (2013) focused on internationalization as a major dimension of the ongoing strategy process of most business firms. Trąpczyński, and Wrona looked at how internationalization determines the ongoing development and change in the international firm in terms of scope, business idea, action orientation, organizing principles, nature of managerial work, dominating values and converging norms. This study set out to examine the role of stockbrokers in the internationalization of capital markets in Kenya. The main objective of this study was to examine the role of stockbrokers in the internationalization of capital markets in Kenya. The specific objectives were to: examine the role of stockbrokers in facilitating cross-listing, foreign investment and off-shoring in advancing the internationalization of Capital Markets in Kenya and finally establish the factors that affect the role of stock brokers in contributing to the internationalization of capital markets in Kenya.

2. Literature Review

Internationalization of Capital Markets: The internationalization of financial markets is one of the focal points in the discussion about recent globalization trends. These discussions suggest that capital can move freely between countries. The internationalization of capital markets in Kenya can therefore be viewed from the perspective of how freely information and securities move, and the vehicles that facilitate the same, i.e. financial brokers (Fernhaber & Li, 2013). Capital markets internationalisation requires the utilisation of one among the six generic strategies available, such as export orientation, business transfer, global integration, franchising, licensing, foreign subcontracting, and export partnership. Through export orientation, a firm has the ability of entering a foreign market without necessarily outsourcing to other capital markets available. Value creation processes takes place domestically while sales are carried out internationally (Ahmed, 2011). Export orientation is considered the most favourable strategy, especially within fixed costs industry. This strategy is considered as a market seeking strategy, which the Kenyan capital market can take into consideration to enter an international market. The strategies of internationalisation have led to value creation activities, which answer questions such as what to internationalise. In the aspect of internationalisation modes, the varying degrees of risk exposure, commitment, and control, answers questions such as how to carry out the process of internationalisation (Kahiya, 2013).

Foreign operations define the process of global integration. As a result, different strategies and modes of international market entry are regarded as benefits, which make the process of market entry easy. Despite the benefits, there are also some barriers, which make the process of realizing the internationalisation strategies difficult. This includes issues such as trade barriers. Trade barriers include issues such as trade tariffs, quotas, costs of logistics, national regulations, the effects of exchange rates, managerial difficulties, and heterogeneous preferences (Andersson, 2000). In addition to trade barriers, difficulties also arise from transfer barriers such as, the difficulties associated with managerial aspects. These may include governance issues, complexities of coordination, issues of discrimination in the foreign market, and hindrance to the internationalization of value creation. Internationalisation modes can also be considered as aids in the process of achieving an internationalisation strategy. Various internationalisation modes within this context include ownership-based controls, rights, mixed ownership modes, and non-equity modes. According to Sun (2009), there are three main streams of research in internationalization. The first stream is following the eclectic paradigm (Dunning & McKaig-Berliner, 2002) which highlights the importance of transaction cost and ownership advantage. A Multinational Enterprise is seen as an exploiter or coordinator of resources, a carrier of firm-specific assets, or an “arbitrager” of cheaper inputs (Peng, 2004). It explains why firms decide to start investing abroad, the preconditions or firm specific advantages, where they invest, that is, where the location advantages complement their ownership- specific advantages are available, and why they select Foreign Direct Investment out of many forms of foreign market entry.

The OLI theory also known as the eclectic paradigm has been developed by John Dunning in a series of publications. The important aspect of OLI theory is that the location and Ownership advantages are necessary, but not sufficient, conditions for Foreign Direct Investment. They should be complemented by

internationalization, which helps in taking the advantages of such conditions. Śliwiński (2012) applied the Eclectic Paradigm to the banking sector. He argued that there are locational advantages, which may include follow-the-client, country specific regulations, and entry restrictions. Internationalization advantage can be informational advantages and access to local deposit bases. Another theory similar to eclectic paradigm is the Investment Development Path paradigm (IDP). The dynamic paradigm proposed by Ozawa (1992) based on Japan experiences. Inward and Outward FDI are regarded as development catalysts. Ozawa claims that firms that start losing comparative advantages, because of the growth of wages for instance start to invest abroad. The dynamic paradigm is very similar to IDP model. This model has been used in working out relocation models explaining the behaviour of multinationals.

The second stream follows the tradition of Uppsala process model (Johanson & Vahlne, 1977) and evolutionary approach. It identifies the different development stage of internationalization, and treats Multinational Enterprises as a learner, knowledge acquirer and market power accumulator. The Nordic or sequential internationalization model (Beck & Fuchs, 2004) is mainly a descriptive theory. Originally it looked at which firms start to invest abroad and in which forms they enter foreign markets. The third stream comes from international entrepreneurship (Chen & Yhen, 2011). Firms rely strongly on alternative governance structures to access resources, establish foreign location advantages, and then control over unique resources. This accelerated internationalization approach emphasizes the entrepreneurship of firm founders or managers, and is grounded in the study of entrepreneurship (Wrona & Gunnesch, 2012).

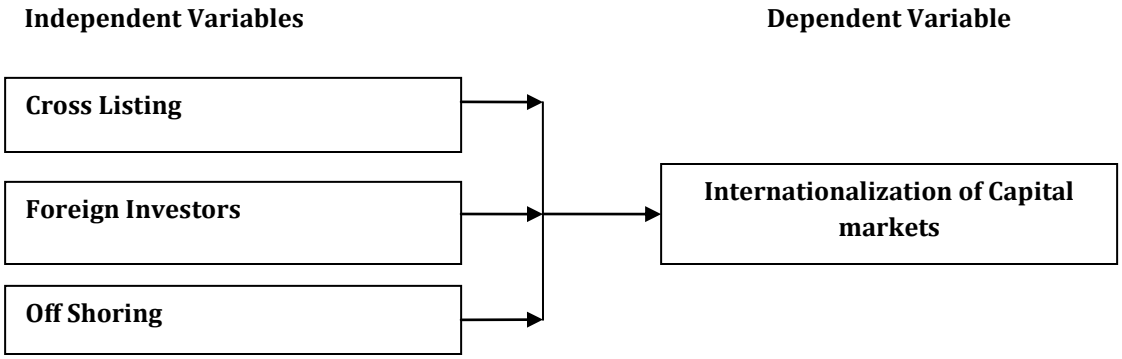
Role of Stockbrokers in the Internationalization of Capital Markets: Stockbrokers assume the main role of channelling of monies between lenders and borrowers. This form of intermediation facilitates social welfare via the channelling of resources to uses that yield the highest returns for investors. In other words, this process can also be termed as the 'transformation of assets'. Intermediation provides value-addition but there are potential "externalities". One intermediary's actions can have consequences for the entire system (Xue, Zheng & Lund, 2013). The growth of an economy's output depends on the rise in the level of the proportion of investments arising from the input and outputs of goods and services. Stockbrokers are important to the economy of any country in that they have an important role to play. Stockbrokers issues financial claims to get hold of the funds to the market participants. Further, the funds are invested in form of loans or securities (Beck, & Fuchs, 2004). Capital market development literature indicates that regional integration is important for stock market development in smaller emerging countries (Wrona & Gunnesch, 2012). Proponents of financial markets internationalization have argued that regional and global integration can bring greater efficiency, synergies, economies of scale, attract the foreign flow of funds; foster risk sharing and portfolio diversification, and act as an impetus to financial sector reforms (Chen, Hsu & Caskey, 2013). Off shoring refers to the purchase of financial derivatives or securities away from the local or domestic market. As markets converge in the wake of the internationalization process, there is an increased need to educate, inform, and take appropriate actions on behalf of investors with the desire to invest abroad. As a major financial intermediary, stockbrokers fill in this gap by providing the much needed information, which they disseminate to firms and individuals desiring to invest outside their local country domains. As such, stockbrokers serve the role of advisory services on one hand, while acting as brokering agents by linking the off shore investments with local clientele. Off shoring is the purchase of intermediate services, even though the distinction between final and intermediate services is a difficult one to make in some cases, and may not be very meaningful in the case of certain types of services.

The development of an equity market goes hand in hand with the financial reforms that a country has been undertaking. The reforms ensure improvements in domestic resources mobility through the development of both banking and non-banking components of the financial market. Reforms are also directed towards the improvement of access to global financial markets through the acts of liberalization of the external capital accounts, to allow free capital movement. Reforms are advantageous in that they aid in the reduction of the financial intermediation costs because of enhanced competition within the financial sector. They also did that by doing away with the existing institutional barriers, and ensuring an equal fiscal treatment of the financial instruments. Utilising reforms also ensures the strengthening of the regulatory environment with an aim of facilitating a smooth functioning system (Oesterle, Richta & Fisch, 2013). The government has also ensured advancement in the level of capital development. This is because of the rapid development of the Eurodollar Market available offshore, which contributed to the surge within the economy of the developing country

(Kubo, 2006). In cross-listing a firm lists its shares for trading on at least two stock exchanges located in different countries (Rienda, Claver & Quer, 2013). To accommodate a wide variety of firms, exchanges have designed several listing categories, each with a different set of requirements and, to the extent that investors are knowledgeable about this structure, varying potential benefits. Cross listing is perceived to bring about improved access to more investors, greater liquidity, higher market share and lower cost of capital. However, Hsu, Chen & Cheng (2013) argues that it has not been established empirically what the real effects of cross-border listing on a firm's financial performance.

Constructs and variables: Regardless of the form or nature of investing, the use of brokerage firms is imperative in completing the investing process. The entire concept of the movement of securities by various stakeholders (foreigners and locals) into various markets (local and off shoring) completes the internationalization spectre within capital markets. The postulated relationship between stockbroker role in various areas and internationalization of capital markets is illustrated in Figure 1 below.

Figure 1: Conceptualization of the role of Brokers in Internationalization of Capital Markets



In order to measure the variables it is necessary to assign them operational measure. The components of the dependent and independent variables operate differently depending on the variable. In the independent variable, cross listing is measured by the role played by the brokers in the process of internationalization. The brokers play a key role in research that provides information to the firms cross listing. As a major financial intermediary, brokers fill in this gap by providing the much-needed information, which they disseminate to firms and individuals desiring to invest outside their local country domains. As such, stock brokers serve the role of advisory services on one hand, while acting as broking agents by linking the off shore investments with local clientele as well as linking local investments to foreign investors. The dependent variables are measured by the number of stocks listed in NSE and other securities exchanges for the component of cross listing; the number of foreign investors in the local market- NSE for the component of foreign investors; and the number of local investors participating in off shore investments for the component of off shore. The indicators of variables in this study are presented in table 1 below.

3. Methodology

This study adopted a descriptive survey. The choice of this .design was based on the fact that in the study, the focus was on the state of affairs already existing in the area of interest. The study entailed carrying out a survey of stock brokers focussing on the issues of interest to the study (Chen, Hsu & Caskey, 2013). The target population of this study was all the 19 stockbrokerage firms licensed to operate at the Nairobi Securities Exchange (NSE) that represented the study unit of analysis. The study adopted a census survey technique with emphasis on representatives of the departments in the stockbrokerage firms that dealt with customers and business development which led to the internationalization processes. The departments of interest were research departments, dealing department and customer service. For purposes of this study, stratified, purposive sampling was employed in selecting the target respondents. Target respondents comprised of the heads of these departments across the firms, translating to 57 targeted respondents in total as shown in table 2 below.

Table 1: Operationalization of Variables

Variables	Components	Specific task indicator
Independent variables *Role of stock brokers*	Cross-listing	- Provision of information - Transaction processing
	Foreign investors	- Sourcing - Provision of Information
	Off-shoring	- Facilitating the Transaction - Sourcing - Provision of Information - Facilitating the Transaction
Dependent Variable *Internationalization of Capital Market*		- Number of stocks listed in NSE and other securities exchanges - Number of foreign investors in the local market- NSE - Number of local investors participating in off shore investments

Table 2: Distribution of Respondents

Department	Number of brokerage firms	No. of respondent from each department	Total respondents across firms
Research	19	1	19
Dealing	19	1	19
Customer service	19	1	19
Total	**57**		**57**

Ketchen & Hult (2006) defines data collection as a means by which information is obtained from the selected subjects of an investigation. Data collection is one of the most important aspects of any type of research. The results of a study are pre-determined by accurate data collection, inaccuracy of which leads to invalid results (Groves & Valsamakis, 1998). This survey relied on both quantitative and qualitative data collection. These methods were in line with the operationalization of the study variables (Figure 1). Primary data was collected by use of a semi-structured questionnaire. According to Yin (2009), questionnaires are the most effective and reliable and also inexpensive compared to other data collection methods. The questionnaire had both open and closed ended questions. Pilot test was carried out towards ensuring reliability and validity. According to Cooper & Schilder, (2003) 1% of the sample is sufficient for purposes of a pilot test. The most common internal consistency measure known as Cronbach's alpha (α) was used. The recommended value of 0.7 was used as a cut-off of reliabilities. Reliability is the consistency of a set of measurement items while validity indicates that the instrument is testing what it should (Cronbach, 1951).

Data was analyzed using both descriptive and inferential statistics. Descriptive statistical tools aided in describing the data and determining the respondents' degree of agreement with the various statements under each factor. Multiple regression analysis was also employed to establish the influence of the role of stock brokers on internalization of capital markets in Kenya. Data analysis was done with the help of software programme SPSS. The regression equation used was expressed in the following equation:

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$, Where,

Y= Internationalization of capital market,
α = Constant
B1-β3= Coefficients of Regression
$\mathbf{X_1}$= Off Shoring
$\mathbf{X_2}$= Foreign Investors
$\mathbf{X_3}$ = Cross Listing
ε = Error Term
$B_1 \ldots B_3$ = regression coefficient of four variables.

4. Results and Discussion

Out of the targeted 57 respondents, a response rate of 82.5% was achieved and this is considered satisfactory to make conclusion for the study. Borsboom (2005) argues that a response rate of 50% is adequate, while a response rate greater than 70% is very good. Therefore based on this assertion; the response rate in this case of 83% is very good.

Reliability Analysis Results: The analysis involved questionnaires from seven respondents and the Alpha coefficients were all greater than 0.7 indicating an acceptable reliability of the instruments. Cooper & Schindler (2003) indicates that a coefficient of 0.7 is an acceptable reliability coefficient. Table 3 shows this result (the Cronbach's alpha).

Table 3: Reliability analysis results - Cronbach Alpha coefficients

Variable	Cronbach's Alpha	No of Items
Stock brokers role in the internationalization of capital markets	.7069	7

Descriptive analysis results

Role of stock brokers in cross listing in the Internationalization of Capital Markets: One of the objectives of this study was to examine the contribution of stock broker role in cross-listing to internationalization of capital markets. Respondents were asked to indicate their level of agreement with various statements appropriate to the role of stock brokers in cross listing in the Internationalization of Capital Markets. From the study findings, majority (81) agreed that stock brokers list ordinary shares of a firm on a different exchange other than its home stock exchange. Also, 62% agreed that to accommodate a wide variety of firms, exchanges have designed several different listing categories, each with a different set of requirements and, to the extent that investors are knowledgeable about this structure, varying potential benefits. Table 4 below shows this finding.

Table 4: Role of stock brokers in cross listing

Statements	Mean	Std dev
1. Transaction processing (Financial brokers list ordinary shares of a firm on a different exchange other than its home stock exchange)	4.8	0.32
2. Provision of information (facilitation of access to information on listing categories, listing requirements, knowledgeable about structure, varying potential benefits).	4.6	0.24

This finding is based on responses on a likert type scale of between 1 and 5, where 1 and 5 represents to a very small and very large extent respectively

Stock brokers' role in off shoring: The study also sought to establish whether the stock brokers' role in off-shoring contributes to capital market internationalization. 100% of the target the respondents indicated that stock brokers provides the much-needed information, which they disseminate to firms and individuals desiring to invest outside their local country domains. Eighty one percent (81%) agreed that stock brokers purchase financial derivatives or securities away from the local or domestic market. This finding is shown through table 5 below.

Table 5: Financial brokers' role in off shoring

Statements	Mean	Std dev
1. Sourcing (Financial brokers purchase of financial derivatives or securities away from the local or domestic market)	4.1	0.22
2. Provision of information (Financial brokers provide the much-needed information, which they disseminate to firms and individuals desiring to invest outside their local country domains)	4.7	0.05
3. Facilitating the transaction (purchase of certain types of intermediate services)	4.8	0.32

This finding is based on responses on a likert type scale of between 1 and 5, where 1 and 5 represents to a very small and very large extent respectively

Role of stock brokers in foreign investor in the Internationalization of Capital Markets: Stock brokers play a role in fostering foreign investment. Hence, this study sought to establish the role of stock brokers as an instrument in the foreign investor in the internationalization of Capital Markets. Findings indicate that stock brokers assume the main role of channelling of monies between lenders and borrowers. In this sense, this form of intermediation facilitates social welfare via the channelling of resources to uses that yield the highest returns for investors. Further, respondents were asked to indicate the extent the stock brokers play their role as foreign investors in the internationalization of capital markets. Findings indicate that majority (63%) indicated that foreign investors played a role in the internationalization of capital markets in Kenya to a great extent, 23% indicated that foreign investors played a role in the internationalization of capital markets in Kenya to a moderate extent, while 14% indicated that foreign investors played a role in the internationalization of capital markets in Kenya to a very great extent.

Table 6: Role of stock brokers in foreign investor support

Statement	Mean	Std Dev
i. Identification and sourcing investment opportunities (Stockbrokers introduce foreign investors to the local market hence playing a significant role in the internationalization of capital market in Kenya)	4.6	0.26
ii. Provision of information (Stockbrokers provide the necessary information required by foreign investors regarding the requirements for their participation in the local market as well as information regarding the stocks and other instruments trading in the NSE)	4.8	0.32
iii. Facilitate transaction (Stockbrokers facilitate the transactions between the foreign investors and the local markets and ensure that the securities are securely in the foreigners' name)	4.6	0.24

This finding is based on responses on a likert type scale of between 1 and 5, where 1 and 5 represents to a very small and very large extent respectively

The study sought to establish the respondents' level of agreement with various statements with regard to foreign investor as a role played by stockbrokers in the Internationalization of capital markets. Respondents strongly agreed that stockbrokers provide the necessary information required by foreign investors regarding the requirements for their participation in the local market as well as information regarding the stocks and other instruments trading in the NSE as shown by a mean of 4.8. The respondents also agreed that stockbrokers introduce foreign investors to the local market hence playing a significant role in the internationalization of capital market in Kenya and also facilitate the transactions between the foreign investors and the local markets and ensure that the securities are securely in the foreigners' name as shown

by a mean of 4.6. This finding is shown in table 6 above. Study findings reveal that stock brokers role in the three areas (cross-listing, off-shoring and foreign investment) indeed do contribute to capital market internationalization, with means across the various specific roles (opportunity sourcing, information provision and transaction facilitation) scored over 4.0.

Factors affecting stock broker's Role in the Internationalization of Capital Markets: The internationalization of capital markets in Kenya has been at a noticeable low pace and stock brokers' role is perceived as limited. Respondents were asked to rank factors affecting stock brokers' role in the internationalization of capital markets. According to the findings as shown in Table 7, the government affected stock brokers' role in the Internationalization of capital markets to a great extent as shown by a mean 4.8, Lack of awareness and knowledge on innovative strategies affected stock brokers' role in the internationalization of capital markets to a great extent as shown by a mean 4.7, adequate financial resources and support affected stock brokers' role as a broker and in the internationalization of capital markets to a great extent as shown by a mean 4.1, further, availability of adequate infrastructure affected stock brokers' role in the internationalization of capital markets to a great extent as shown by a mean 3.9, lastly, dealing/trading costs affected stock brokers' role in the internationalization of capital markets to a great extent as shown by a mean 3.6.

Table 7: Ranking of factors affecting stock broker's role in capita market internationalization

Factor	Mean	Std dev
Availability of adequate infrastructure	3.9	0.18
Adequate financial resources and support	4.1	0.22
Lack of awareness and knowledge on innovative strategies	4.7	0.05
Dealing/Trading Costs	3.6	0.16
Government issues & regulations	4.8	0.32

This finding is based on responses on a likert-type scale of between 1 and 5, where 1 and 5 represents to a very small and very large extent respectively.

Areas of government issues and regulations and, awareness and knowledge on innovative strategies on the part of stock brokers tops as the most critical factors that affect stock brokers role in capital market internationalization (with means of 4.8 and 4.7 respectively). Although the other factors (infrastructure, financial resources, dealing cost) also influence the stockbroker contribution in the internationalization of capital markets, the two factors require close attention.

Inferential statistics

Regression analysis results: The R^2 is called the coefficient of determination and shows variability in dependent variable explained by the variability in independent variable. This value tells us how internationalization of capital market varied with off shoring, foreign investors and cross listing. The R^2 value of 0.7812 implies that 78.1% of the variations in the dependent variable (internationalization of capital market) are explained by the variations in independent variables (Off shoring, foreign investors and cross listing). Further, the Durbin Watson value is greater than 2 implying there is no autocorrelation. The value of *d* always lies between 0 and 4. If the Durbin–Watson statistic is substantially less than 2, there is evidence of positive serial correlation. The study therefore identifies off shoring, foreign investors and cross listing as critical roles played by stock brokers for internationalization of capital market. It further establishes that the relations between the three roles drive internationalization of capital market, consequently a need to implement a strategy to enhance the three areas.

Table 8: Regression Model Summary of the effect of Independent variable

Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin Watson
1	.8839	.7812	.7685	.1458	2.220

a Predictors: (Constant), Off Shoring, Foreign Investors and Cross Listing
b Dependent Variable: Internationalization of Capital Market

Table 9: ANOVA results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.227	4	1.557	4.398	.034(a)
	Residual	18.831	42	.649		
	Total	25.059	46			

a Predictors: (Constant), Off Shoring, Foreign Investors and Cross Listing
b Dependent Variable: Capital Market Internationalization

The significance value is .034 which is less that 0.05 thus the model is statistically significant in predicting Off Shoring, Foreign Investors and Cross Listing).

Multiple regression analysis: A multiple regression analysis was conducted. From the regression model, holding off shoring, foreign investors and cross listing constant, Internationalization of Capital Market would be 1.147. It's established that a unit increase in stock brokers' role as foreign investors would cause an increase in internationalization of Capital Market by a factor of 0.488, a unit increase in off shoring would cause an increase in internationalization of Capital Market by a factor of 0.434. Also a unit increase in cross listing would cause an increase in internationalization of Capital Market by a factor of 0.269. This shows that there is a positive relationship between internationalization of Capital Market and, Off Shoring, stock brokers' role as foreign investors and Cross Listing. The Unstandardized beta coefficients column in Table 10 below were used to obtain the overall equation as suggested in the conceptual framework. The regression equation was ($Y = \beta 0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$): When these beta coefficients are substituted in the equation, the model becomes:

$Y = 1.147 + 0.488X_1 + 0.434X_3 + 0.269X_4 + 0.00$

Where:

Y = Internationalization of Capital Market, X1 = Off Shoring, X2 = stock brokers' role as foreign investors, X3= Cross Listing

Further, the regression analysis results show that the relationship between the factors (Off shoring, cross listing and foreign investor) and capital market internationalization at 95% confidence level is statistically significant with p values < 0.05. The most significant role is in as foreign investors with p value of 0.01. This implies that stock brokers role as foreign investors contribute more to the internationalization of capital market in Kenya while stock brokers role in cross listing contribute the least.

Table 10: Coefficient of Determination

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.147	0.393		2.915	.000
Foreign Investors	.488	.256	.186	1.908	.001
Off Shoring	.434	.195	.609	2.221	.031
Cross Listing	.269	.135	.387	1.991	.003

The study findings that stock brokers contributes positively to capital markets internationalization conforms to study finding by Äijö (2001) who observed that stock brokers plays a big role in capital market internationalization. The finding that capital can move freely between countries and viewed the internationalization of capital markets is enhanced from the perspective of how freely information and securities move, and the vehicles that facilitate the same, through the stock brokerage platforms. According to Johanson & Valhne (1977) when a firm gathers knowledge, experiences and networks by exporting, it is in a little while able to take the next step and expand its speed of internationalizing.

In regard to the respondents ranking of factors affecting stock broker's role in the internationalization of capital markets, the government, lack of awareness and knowledge on innovative strategies, adequate financial resources and support are ranked as factors that affect to a very great extent stock brokers role in the internationalization of capital markets. Further, the study findings revealed that availability of adequate infrastructure and trading costs affected to a great extent stock brokers role in the internationalization of capital markets. The findings confirms Johanson & Vahlne (2012) observations that lack of awareness and knowledge on innovative strategies, adequate financial resources and support are some of the factors that affect stock brokers role in the internationalization of capital markets. The study revealed that information availability determined to a very great extent, investment in other countries capital market. According to Sun (2009) the ability of firms to make use of available information and know how sets firms apart from the domestic enterprise because information is itself a key asset or resource that a firm leverages as it operates within the context of unfamiliar host countries. According to the findings, foreign investors play a role in the internationalization of capital markets in Kenya to a great extent. This was confirmed by the regression analysis results that indicated that the relationship between foreign investors role and the capital market internationalization is statistically significant at 95% confidence level (p-value 0.001<0.05). Further, the regression analysis results indicated that the relationship between off shoring role and capital market internationalization was statistically significant at 95% confidence level (p-value 0.003<0.05). The regression analysis results indicated that the relationship between cross listing role and the capital market internationalization was statistically significant at 95% confidence level (p-value 0.03<0.05).

5. Conclusion and Recommendations

The study concludes that indeed stock brokers contribute to capital market internationalization. The stock brokers' role in the three areas (cross-listing, off-shoring, and foreign investor) influences the level of internationalization of capital markets in Kenya. The stock brokerage platform facilitates capital to move freely between countries and this is enhanced from the perspective of sourcing of opportunities, searching and making relevant information available to firms and facilitating transactions. The study further concludes that the government, lack of awareness and knowledge on innovative strategies, adequate financial resources, availability of adequate infrastructure and trading costs affects to a great extent stock brokers role in the internationalization of capital markets. The study recommends that stock brokers should invest in information search, embrace technology and innovative strategies for enhanced efficiency and effectiveness in contributing to taking capital market internationalization to a higher level. Further stock brokers should strengthen their institutional capacities in terms of resources, infrastructures, processes and systems. The government and policy makers should direct efforts towards addressing the various bottlenecks that hinder the effectiveness of the stock brokers in the internationalization of capital markets in Kenya. The government and other players in the capital markets sector should strive towards making the environment conducive for doing business locally and across capital market borders as this would positively contribute to capital market internationalization and development.

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Evaluation of Bank Products Appeal across Demographic Consideration: A Comparative Study of Nigeria and South Africa

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Abstract: Influence of demographic variables on banking has continued to attract the interest of researchers over the years with a good number focussing on impact of demographic variables on choice of banks by customers. This study however differs from previous studies in that its focus is on the evaluation of bank products appeal across demographic variables in South Africa and Nigeria. This descriptive study made use of primary data collected by administering validated and pre-tested questionnaires to 3,684 bank customers within selected strategic locations across Nigeria and South Africa using the snowball sampling technique. Both descriptive and inferential statistics were used to analyse the data generated. High Chi-Square statistics (corroborated with cross – tabulation and correlation analyses) coupled with very low probability values indicate highly significant associations between demographic variables and the dependent variables. The study recommends customer-centric approach on the part of banks to be able to provide customers with effective and unique value offers for various customer segments. Also, policy intervention is required to promote infrastructural upgrade for better product and service delivery. A more inclusive regulatory framework is required to draw more of the unbanked self – employed populace in the interest of boosting the economic performance of both countries.

Keywords: *Gender, Bank Products Appeal, Evaluation, Demographic Consideration, Nigeria, South Africa*

1. Introduction

Throughout the past decade structural and regulatory factors have considerably changed the banking environment both in Nigeria and South Africa and have resulted in intensified competition in the market place. The intense competition that exists in the banking industry presents a big challenge to the profitability of retail banking institutions. This is considering the fact that the preferences of the customers of bank products and services is ever dynamic especially as technology advances and diverse innovations have continued to alter the nature of banks' products and services. Recent empirical studies suggest that demographic features wields a significant influence on customers' choice of bank with specific emphasis on such criteria as convenience, customer service, and speed dimensions of bank services (Okoe, Osarenkhoe and Hinson, 2013; Maiyaki, 2011; Rashid and Hassan, 2009; Mokhlis, Salleh, and Mat, 2011). While earlier studies have focussed extensively on influence of customer demographic factors on choice of bank preference, studies investigating customer demographics and bank products nexus have been limited. Hence, this study seeks to contribute to literature by embarking on the empirical investigation of the influence of customer demographic considerations on bank products preferences with specific reference to Nigeria and South Africa given the existing regulatory environments in both countries. The findings of the study will assist management of commercial banks not only to better understand how customer demographics dictate their preference for bank products; it will also help bank management to effectively segment their target market in the interest of achieving effective and efficient product offering to their respective target market segments.

In his study titled "Gender-Based Retail Bank Choice Decisions in Nigeria" Omar (2007) opined that differences in the financial responsibility of men, women and students coupled with differences in orientation and preferences, the perception and choice of bank products are likely to vary significantly across demographic considerations. The study intends to encourage banking services providers to tailor their products around the preferences of their customer demographic factors for optimal performance and widest possible coverage of the market. This approach is inclusive as opposed to the traditional exclusive approach whereby financial services providers often tend to focus on the male market with financial products to the neglect of the female market segment (Omar, 2007). It is worthy of note that the financial management landscape has undergone rapid overhaul in recent times thus making it a much more competitive environment for all players. These changes were indicated by the emergence of many new financial institutions, introduction of new financial instruments, implementation of new financial policies and

regulatory framework. Thus, the contemporary role of banks in Nigeria and South Africa has shifted from the traditional financing of trades to one of mobilising and channelling resources more effectively and efficiently to meet the ever dynamic customer needs. These changes essentially have eliminated the demographic demarcation lines among different types of customers.

More specifically, the study aims at determining the influence of education on customers' bank product appeal in Nigeria and South Africa, investigate the influence of age on customers' bank product appeal in Nigeria and South Africa, establish the relationship between customers' gender and bank product appeal in Nigeria and South Africa, determine the influence of customers' socio-economic status on their bank product decision in Nigeria and South Africa, and also to investigate the influence of personal income on customers' bank product appeal in Nigeria and South Africa. The findings of this study will be useful as they provide pertinent information for bank managers in product innovation, marketing strategy, and policy formulation to enhance optimal reach of their target markets. The rest of the paper is structured as follows: Section 2 presents the review of related literature, Section 3 is centred on methodology, data presentation and estimation technique employed. Section 4 examines and discusses the empirical results of the study. The paper closes with concluding remarks and implications of the results.

2. Literature Review

Bank selection criteria: Copious literature exists in the domain of bank selection criteria although they are mostly country-specific as they are subject to cultural, economic and legal environments that are unique to individual country (Rao and Sharma, 2010). Thus, while such studies have contributed substantially to the literature on bank selection, their findings may not be applicable to other countries. Diverse factors have been considered to impact hugely the selection of banks by customers. Empirical studies have identified safety of funds and availability of technology based services as being more critical and of high significance (Omar, 2007; Aregbeyen, 2011). Other influencing factors that also impact on selection of banks by customers are efficient service delivery, speed of transaction, friendly staff, overdraft privileges, third party recommendation, bank reputation credit availability, low service charge, range of services, convenient location, bank size, and bank ownership (Omar, 2007). Munusamy, DeRun, Chelliah, and Annamalah (2012) opined that the perception of five factors influence customers' preference for one bank product over the other, these are: ease of operation, reliability, convenience of usage, low level of risk, and safety of usage. Rao and Sharma (2010) identified the various factors that affect bank product preferential decisions to include: reliability, convenience, assurance, value added services, accessibility and responsiveness. Hinson, Dasah and Owusu-Frimpong (2009) in a study aimed at understanding the key motivations for maintaining accounts within banks in Ghana find that proximity is the determinant factor for opening an account by a customer with a bank. Most of the previous studies have focussed on analysing bank choice criteria (Narteh and Owusu-Frimpong, 2010; Albert, Njanike, and Mukucha, 2011; Nkamnebe and Ukenna, 2011) whereas, studies focussing on the influence of demographic variables on choice of bank products have been very limited. This is the gap in the body of existing knowledge that this study intend to fill.

Customer demographic profile and bank product selection: Considering the fact that the needs and preferences of customers are ever changing, it is imperative for providers of services being demanded by the customer to be wary of this dynamism to be able to evolve strategies to cope with the situation. Thus an informed knowledge of how customers select product will help banks to identify which product to develop for which market and also determine the appropriate marketing strategies needed to attract new customers and retain existing ones (Kaynak, Kucukemiroglu and Odabasi, 1991; Blankson, Omar and Cheng, 2009). It is worthy of note that the business environment in contemporary times is practically undergoing a major revolution in the way customers buy, shop, and eventually decide to either come back or take their business elsewhere. Thus, companies are increasingly realising that the balance of power is progressively shifting from sellers to buyers. This is the principle of contemporary marketing strategies – treating the customer as a king (Lopez et al. 2007). This is considering the fact that the customers are the reason for an organization to be in business for without them the organization cannot be. For example, customers need exactly what they want, at the right time and place that they want it, with a high specification and at the lowest possible price. In addition, businesses must make customers feel special or else they will take their money to another business that can provide all what they want. Hence, it is inevitable that banks identify main factors that determine the

basis upon which customers select their preferred products among various existing categories (Aregbeyen, 2011).

Studies have underscored the need for understanding customer satisfaction, customers' bank selection criteria, and role of customers' demographic factors in shaping customers' awareness and usage of Islamic bank products/services (Dusuki and Abdullah, 2007; Metawa and Almossawi, 1998; Wilson, 1995). Aregbeyen (2011) in his study on the determinants of bank selection choices by customers find that education correlates positively with banking habits. His study reveal that 52% of the studied population with tertiary education have bank accounts, 32% of the respondents with secondary education have bank accounts, 12% with primary education and 4% with no education have bank accounts respectively. In a similar study by Muzividzi, Mbizi, and Mukwazhe (2013) in their analysis of factors that influence internet banking adoption among bank customers posit that an association exist between internet banking and a bank's customer educational level. Education was deemed a prerequisite in enhancing the smooth adoption of internet banking and hence one should have a significant level of education to take up the technology. Thus going by consumer behaviour theory, banks adopt the innovative technology of internet / electronic banking to prevent customer switching from their bank to other banks in the name of looking for better services. Al-Somali, Gholami, and Clegg (2009) discover that trust and education has a significant impact on customers' attitudes towards using internet banking. For people to therefore adopt internet banking, they need to be educated. This view was corroborated by Howcroft, Hamilton, and Hewer (2002), who argue that the demographic characteristics that describe typical internet banking customers include education among other demographic variables.

In their study of gender and finance in Sub – Saharan Africa, Aterido, Beck, and Iacovone (2011) observed that one of the critical determinants of the extent of use of financial services in sub-Saharan African countries is education. Their study discovered that with education the normally observed gender difference in access to banking services is no longer in existence. Education is thus found to be a strong predictor of the use of banking services. Consequent upon the arguments in favour of education as a pivotal determinant of specific bank product, we thus hypothesise as follows:

H1: Bank products' appeal is significantly influenced by Education level of the customers of banks in Nigeria and South Africa.

The role of employment status on bank product preference has also been well documented in empirical literature. Employment status was found to correlate positively with banking habits (Aregbeyen, 2011; Asikhia, 2011; Ukenna, Okoye, Ugwuomu and Monanu, 2012). This explains why current account holders are basically from the high income group. The low income category by implication generally prefer savings account. Tootelian and Gaedeke (1996) argue that employees with high status often develop a need for a wider range of financial services. Thus, those people with high employment status often hold multiple accounts and made use of diverse services of the bank compared to their low employment counterparts. In their study aimed at investigating whether women are disadvantaged in the issue of gender and finance, Aterido, Beck, and Iacovone (2011) posit that employment status is one of the critical factors that determines the extent of usage of financial services in Sub – Saharan Africa. The effect of income level on the use of financial services has been well investigated by researchers. It is worthy of note that barely 20 – 30 % of the population in developing countries have access to financial services excluding about 70 – 80% of the population from having access to financial services. This is in sharp contrast to the case of developed economies where about 90 – 99% of the population have access to financial services (World savings bank institute, 2004). The 20 – 30% of the population in the developing economies that do have access to financial services basically comprises of the high income group with the low income earners suffering considerable challenges of accessing financial services. In view of these arguments in support of socio - economic status as a determinant of bank product preference, we hereby hypothesise as follows:

H2: Bank products' appeal is significantly influenced by Socio-economic status of customers in Nigeria and South Africa.
H3: Personal income has a significant influence on customers' bank products appeal in Nigeria and South Africa.

Furthermore, empirical studies have also revealed that adopters of innovations tend to be more educated, have higher status occupations and higher incomes than non-adopters (Kolodinsky, and Hilgert, 2004; Mokhlis, Salleh, and Mat, 2011; Okoe, Osarenkhoe, and Hinson, 2013). In a study in Hong Kong, the following demographic variables were considered to be important ones in customers' adoption behaviour in banking: gender, age, household income, educational level, and occupation (Wan, Luk, & Chow, 2005). In another recent study, Cohen, Gan, Hwa and Chong (2006) asserted that customers' age groups and level of education contributed to explaining respondents' propensity to stay with their current banks. Metawa and Almossawi (1998) in a study on behaviour of Islamic bank customers in Bahrain considered age, income, level of education, and nationality as important socio-demographic variables in associated with customer behaviours. In their investigations on the factors that influence choice of internet banking (Flynn and Goldsmith, 1993; Matila, Grandey and Fisk, 2003; Gan, Clemens, Limsombunchai, and Weng, 2006; Chiemeke, Evwiekpaefe, and Chete, 2006; Bauer and Hein, 2006; Sakkthivel, 2006; Awamleh and Fernandes, 2006; Berger and Gensler, 2007) find that prominent among influencing factors are income level and age. Their studies reveal that younger customer tend to opt for internet banking more than adults. On the other hand, their studies discover that higher income customers prefer internet banking more than low income earning customers. The influence of age on bank product appeal to customers has been extensively documented in literature. Fozia (2013) in an attempt to determine the customer's perception toward the e – banking services find that different age group of customers and different occupation group of customers have different perception toward the e – banking services. The study reveals that age plays a significant effect on customers' perception of e – banking service quality. Furthermore, research has linked age and adoption of technologies with younger persons being more likely to adopt e – banking products than old people (Zeithaml and Gilly, 1987; Trocchia and Janda, 2000; Karjaluoto, Mattila, and Pento, 2002. Based on literature we thus hypothesize as follows:

H4: Age has a significant influence on customers' bank products appeal in Nigeria and South Africa.

The influence of gender on bank products appeal has been subjected to considerable empirical investigations. Traditionally, bank products used to be tailored for the male gender considering the original notion that women are supposed to be full housewives – a practice that is fast fading out due to the advent of civilization. With increasing awareness of the need for both male and female alike to embrace education the bias of education in favour of the male against the female is fast fizzling out. Hence, both male and female are now opting for banking products and services alike (Ukenna, Okoye, Ugwuomu and Monanu 2012). Considering these argument in favour of the influence of gender on bank product preference we thus hypothesise as follows:

H5: Gender has a significant influence on customers' bank products appeal in Nigeria and South Africa

Considering the foregoing, it is arguable therefore that the knowledge and of the influence of demographic factors on preferential decisions for specific bank products will enable effective marketing of the products to the right audience thus improving on the productivity of the financial system which by extension will enhance efficiency and effectiveness of the system with consequential positive impact on the performance not only of the banks but also of the economy.

Theoretical Framework: There are different theories that can be used to explain the relationship between bank customers' demographic variables influence on bank product appeal. These include the competition theory and choice theory which underpins this study. Levin and Milgrom (2004) posit that individual decision – making forms the basis of nearly all microeconomic analysis. In the standard view, rational choice is defined to mean the process of determining what options are available and then choosing the most preferred one among available alternatives. This is the principle on which rational choice is based. It is an optimization – based approach which is one of maximising a real – valued utility function. The rational choice theory provides useful sights on the choice or selection behaviour of individual customer, while the competition theory explains how firms try to win customers patronage and loyalty through service excellence, meeting customers' needs and providing innovative products. The choice theory otherwise referred to as rational choice or rational action theory is a framework for understanding and often formally modelling social and economic behaviour. In microeconomic models, rationality which basically expresses the idea of wanting

more rather than less of a good is widely used as an assumption of the behaviour of individuals. According to the theory, patterns of behaviour in societies reflect the choices made by individuals in their bid to maximise their benefits and minimise their costs. In other words, people make decisions about how they should act by comparing the costs and benefits of different courses of action. Consequently, patterns of behaviour develop within the society as a result of those choices.

Decisions are said to be rational when an action is chosen given one's preference amongst existing alternative courses of action that gives desired outcome. The validity of rational decision making is rooted in two complementary assumptions namely completeness and transitivity. The principle of completeness holds that all actions of the individual can be ranked in an order of preference while transitivity requires that if choice A is preferred to B, and B is preferred to C, then A is preferred to C. These assumptions jointly form the result that given a set of exhaustive and exclusive actions to choose from, an individual can rank them in order of his preference, and that his preferences are consistent. Competition theory on the other hand describes the existence within a market for some goods or service of a sufficient number of buyers and sellers such that no single market participant has enough influence to determine the going price of a good or service. Competition occurs when two or more organizations act independently to supply their product to the same group of consumers. Direct competition exists where organizations produce similar products that appeal to the same group of consumers. Indirect competition exists when different firms offer to the same market goods or services which although is not in head to head competition but still competes with the same money in the buyers' pockets. Competition, whether direct or indirect cause firms to develop new products and technologies which is to the benefit of the buyers since it give consumers greater selection and better and improved products.

By implication therefore, the competitive strategy of the firm is contingent upon consumers' preferential choice which tend to influence firms' productive decision towards the satisfaction of the consumers. Given the rationality of human decisions in which people normally compare the costs and benefits of certain actions is much easy to observe in respect of bank products selection behaviour of customers. This is simply because the average person wants to get the most useful products / services at the lowest price; this will be compared from bank to bank before a conclusive decision is taken. By this reasoning, people will choose the bank whose products offer the greatest reward or benefits at the lowest cost. Kaynak, Kucukemiroglu and Odabasi (1991) argue that considering the competitiveness of the banking services with banks not only competing among each other, but also with non-banks and other financial institutions, the banks cannot but keep initiating new products and services for competitiveness. However, since most bank products development is easy to duplicate banks therefore can only distinguish themselves on the basis of price and quality. Thus, customers' retention is the only effective tool that banks can use to gain a strategic advantage and survive in the contemporary ever-increasing competitiveness of the banking environment. This paper differs from other studies primarily in that while other studies focus on causality of growth from savings perspective, and some others concentrated on influence of demographic variables on choice of bank, this study aimed at investigating the influence of demographic variables on bank products appeal in the countries covered by the study. Appropriate recommendations based on findings from the study will be used to advise policy makers accordingly.

3. Methodology

Data Sources: The data for this study were gathered via an opinionated survey of conducted in the major economic nerve centres of Nigeria and South Africa. The sample size for Nigeria was 2,160 respondents whose questionnaires were fully completed out of 2,350 that were distributed. The size for South Africa was 1,524 out of 1,700 that were distributed. The respondents were randomly selected at the various banks through the help of trained research assistants. As required by UNISA (University of South Africa) Ethics Committee, respondents were conspicuously advised that their responses will be treated with strict confidentiality and will be used strictly for academic purposes and also that participation is totally voluntary. The instrument was partitioned into three. Part "A" sought information on respondents' demographic profile such as nationality, age, gender, education, status, and income level. Part "B" is designed to capture information on access to banking of the respondents. Information required are on type of account(s) held, bank branch proximity, most appealing bank product, product accessibility, benefits of automated bank

products, dislikes of automated bank products. Finally, part "C" was designed to elicit information on factors hindering access to banking services. The questionnaire consists of both open as well as closed ended questions with appropriately graduated response scales. The population of the study comprises of all the bank customers in the respective territory covered by the study in each of the two countries selected for the study. To arrive at such a comprehensive list of customers would require the various banks to reveal their customers' list together with their profiles.

The banks for competitive privacy reasons are unwilling to release such data. Hence, a non-probability rather than a probability sampling method was adopted for the study. The questionnaire being a self-developed instrument was validated. Prior to the validation of the instrument, the Kaise-Meyer-Olkin (KMO) measure of sampling adequacy was conducted. The 0.808 coefficient obtained for the KMO test is considered strong enough to conduct the factor analysis. Also, the p – value obtained for the Bartlett test (0.000) is also indicative of strong enough correlation structure to support factor analysis. Factor analysis was thus carried out on the variables using principal components extraction method. Three factors were obtained at the end of the factor analysis. Thereafter, the reliability statistics computed at 0.6 is considered acceptable for the instrument. Thus, the questionnaire was thus administered.

Sample size and sampling technique: Purposive sampling technique was adopted for the study considering the fact that the characteristics of the target population cum the unwillingness of the banks to release information concerning their customers' list and profile thus the constraints regarding the exactness of the study population do not lend the population of the study to random sampling technique. The sample size of 1,524 was consequently drawn from the various territories covered by the study in South Africa while for Nigeria; the sample size of 2,160 was used. A total of 1,700 questionnaires were administered at the various locations covered by the study in South Africa out of which 1,524 were completed and returned giving a response rate of 90% while in the case of Nigeria; 2,350 questionnaires were administered of which 2,160 were completed and retrieved giving a response rate of 92%. For Nigeria the three major economic centres covered were Lagos, Ibadan and Port-Harcourt while for South Africa, the three major economic provinces covered were: Pretoria / Johannesburg, Durban / Pietermaritzburg and Cape Town. Descriptive and non – parametric estimations were employed in the analysis of the data generated by the study.

4. Data analysis

Analysis of the data began with data verification and cleaning. This action was required to ensure that the data collected are clean, correct and useful. Considering that the data are of the nominal and ordinal types, simple frequency was used for verification and cleaning of the data. By the cleaning exercise, erroneous values were replaced by system missing values. Having cleaned the data, the factor analysis was done as described above. Thereafter, various analyses were carried out in pursuit of the study objectives. The table of cross-tabulation of age group, number of accounts and types of account is as presented in table 1 below.

Table 1: Table of age group / number and types of accounts (Regional comparison)

Age group (Years)	Number of accounts												Types of account											
	Nigeria						South Africa						Nigeria						South Africa					
	1	2	3	>3	0	Total	1	2	3	>3	0	Total	C	S	D	CD	MM	Total	C	S	D	CD	MM	Total
18 – 25	95	137	34	2	73	341	198	34	9	2	109	352	2	267	0	0	5	274	12	228	0	0	9	249
26 – 30	67	255	66	10	67	465	146	52	9	5	78	290	35	360	1	1	13	410	17	193	1	0	0	211
31 – 35	56	181	55	14	121	427	135	52	7	2	98	294	41	267	2	0	33	343	28	165	1	0	2	196
36 – 40	43	189	69	11	229	541	179	41	14	5	53	292	41	274	3	2	35	355	33	204	0	1	2	240
Above 40	30	96	38	13	209	386	165	57	20	7	47	296	16	168	5	0	31	220	42	206	0	0	1	249
Total	291	858	262	50	669	2160	823	236	59	21	385	1524	135	1336	11	3	117	1602	132	996	2	1	14	1145

Key: C-Current a/c, S-Savings a/c, D-Domiciliary a/c, CD-Certificate of deposit, MM-Money market a/c

From table 1 above table it is observable that the number and type of accounts held by respondents varied significantly with age group. For both countries, the highest number of accounts held by respondents falls between the 36 – 40 years age group in the case of Nigeria and above 40 years in the case of South Africa. This affirms the hypothesis that age group has a significance effect on choice of bank product. Further, in the case of Nigeria, 54% of the respondents have 2 accounts whereas, in the case of South Africa, the figure is barely 21%. This is arguably due to the fact that with financial inclusion policy being practiced in Nigeria access to financial services is relatively easier compared to South Africa where the regulatory framework emphasizes strictness in verification of customer identity before any financial transaction is concluded – a condition that has very high potential to disenfranchise the socially and financially disadvantaged. From the above table 2, a significant influence of age group is observable on the bank product usage across the two countries, it is however noteworthy that accessibility of innovative products is much higher in South Africa that in Nigeria. This is due to the fact that South Africa has a better technological infrastructure compared to Nigeria.

Table 2: Table of age group / bank product and accessibility (Regional comparison)

Age group (Years)	Bank products												Bank products accessibility											
	Nigeria						South Africa						Nigeria						South Africa					
	ATM	MP	IB	TB	CCDM	Total	ATM	MP	IB	TB	CDM	Total	RA	FA	SA	NA	Total	RA	FA	SA	NA	Total
18 – 25	273	5	0	1	0	279	252	21	7	4	7	291	70	191	15	28	304	150	107	17	45	319
26 – 30	401	13	5	0	0	419	222	14	21	3	12	272	52	333	25	14	424	132	106	10	15	265
31 – 35	345	5	1	0	2	353	191	11	22	5	9	238	39	296	13	32	380	86	117	15	50	268
36 – 40	352	6	0	1	0	359	210	26	23	4	4	267	33	301	20	67	421	109	139	10	19	277
Above 40	222	4	0	0	1	227	237	20	25	2	6	290	65	156	2	7	230	138	142	6	2	288
Total	1593	33	6	2	3	1637	1112	92	98	18	38	1358	259	1277	75	148	1759	615	611	58	133	1417

Key: ATM-Automated teller machine, MP-Mobile phone, IB-Internet banking, TB-Telephone banking, CCDM-Cash and cheque deposit machine, RA-Readily accessible, FA-Fairly accessible, SA-Seldom accessible, NA-Not accessible

Table 3: Table of education status / number and types of accounts (Regional comparison)

Educ-Ation	Number of accounts												Types of account											
	Nigeria						South Africa						Nigeria						South Africa					
	1	2	3	>3	0	Total	1	2	3	>3	0	Total	C	S	D	CD	MM	Total	C	S	D	CD	MM	Total
BM	36	34	6	2	461	539	335	36	6	2	176	555	15	76	0	0	65	156	16	360	1	0	8	385
M	119	174	38	7	216	554	304	102	22	1	167	596	15	328	3	3	48	397	39	384	1	0	5	429
Dip	75	303	69	8	13	468	94	45	12	3	29	183	34	420	0	0	2	456	34	120	0	0	0	154
Deg	56	302	111	29	9	507	84	43	13	9	11	160	61	434	4	0	2	501	31	116	0	1	1	149
M&D	5	45	38	4	0	92	6	10	6	6	2	30	10	78	4	0	0	92	12	16	0	0	0	28
Total	291	858	262	50	699	2160	823	236	59	21	385	1524	135	1336	11	3	117	1602	132	996	2	1	14	1145

From tables 3 and four, the number and types of accounts held by customers vary slightly with education status. This may be attributable to the fact that the percentage of the population with education drops as qualification increases.

Table 4: Table of education status / bank products and accessibility (Regional comparison)

Education	Bank products												Bank products accessibility									
	Nigeria						South Africa						Nigeria					South Africa				
	ATM	MP	IB	TB	CCDM	Total	ATM	MP	IB	TB	CDM	Total	RA	FA	SA	NA	Total	RA	FA	SA	NA	Total
BM	181	2	0	0	0	183	420	6	10	4	15	455	46	121	12	110	289	138	279	18	75	510
M	397	4	5	1	1	405	455	40	21	6	17	539	93	291	16	24	424	261	217	30	49	557
Dip	439	15	1	0	1	456	122	23	24	5	4	178	35	399	17	5	456	99	59	6	6	170
Deg	488	9	0	1	1	501	101	20	33	3	0	157	71	394	25	8	498	93	53	4	2	152
M&D	88	3	0	0	0	92	14	3	10	0	2	29	14	72	5	1	92	24	3	0	1	28
Total	1593	33	6	2	3	1637	1112	92	98	18	38	1358	259	1277	75	148	1759	615	611	58	133	1417

Table 5: Table of gender / number and types of accounts (Regional comparison)

Gender	Number of accounts												Types of account											
	Nigeria						South Africa						Nigeria						South Africa					
	1	2	3	>3	0	Total	1	2	3	>3	0	Total	C	S	D	CD	MM	Total	C	S	D	CD	MM	Total
Male	144	330	118	30	299	921	487	123	27	14	198	849	73	545	5	1	32	656	83	561	2	1	7	654
Female	147	528	144	20	400	1239	336	113	32	7	187	675	62	791	6	2	85	946	49	453	0	0	7	491
Total	291	858	262	50	699	2160	823	236	59	21	385	1524	135	1336	11	3	117	1602	132	996	2	1	14	1145

From tables 5 and 6, there is a noticeable improvement in the number of females holding bank accounts when compared with the situation in times past. This is as a result of civilization in which education has changed the orientation of the past in which only the man fends for his family. With education, women are no longer relegated to the "kitchen" but are also "rubbing shoulders" with their male counterparts in doing businesses to enable them also contribute to fending for the family. Hence, the appreciable number of women holding bank accounts. For Nigeria specifically, approximately 51.21% of the 170m population are females reference the 1991 and 1996 census record; hence the higher number of females holding bank accounts compare to the males. Thus it could be inferred that gender influence choice of bank products although not so significantly (87% female opt for savings accounts in both countries compared to 84% in the case of males in both countries).

Table 6: Table of gender / bank products and accessibility (Regional comparison)

Gender	Bank products												Bank products accessibility									
	Nigeria						South Africa						Nigeria					South Africa				
	ATM	MP	IB	TB	CCDM	Total	ATM	MP	IB	TB	CDM	Total	RA	FA	SA	NA	Total	RA	FA	SA	NA	Total
Male	646	16	1	2	2	667	644	40	44	6	19	753	138	489	31	104	762	327	348	35	72	782
Female	947	17	5	0	1	970	468	52	54	12	19	605	121	788	44	44	997	288	263	23	61	635
Total	1593	33	6	2	3	1637	1112	92	98	18	38	1358	259	1277	75	148	1759	615	611	58	133	1417

Table 7: Table of socio-economic status / number and types of accounts (Regional comparison)

Socio Economic Status	Number of accounts												Types of account											
	Nigeria						South Africa						Nigeria						South Africa					
	1	2	3	>3	0	Total	1	2	3	>3	0	Total	C	S	D	CD	MM	Total	C	S	D	CD	MM	Total
Employed	46	379	118	14	70	627	328	172	37	18	73	628	55	493	6	1	1	556	96	455	1	1	1	554
Unemployed	53	80	4	0	250	387	233	24	5	2	186	450	3	133	1	0	56	193	16	243	0	0	6	265
Self-employed	135	361	131	32	356	1015	181	28	15	1	80	305	76	603	4	2	58	743	16	207	1	0	2	226
Schooling	57	38	9	4	23	131	81	12	2	0	46	141	1	107	0	0	2	110	4	91	0	0	5	100
Total	291	858	262	50	699	2160	823	236	59	21	385	1524	135	1336	11	3	117	1602	132	996	2	1	14	1145

Tables 7 and 8 indicated that socio – economic status does influence the number of accounts, types of account as well as bank product decision. It is observable from the tables that the employed respondents hold more accounts and also made use of bank products than the unemployed. Interestingly, the self-employed holds more accounts than the employed in Nigeria which suggests that there are more self-employed people holding bank accounts and using diverse bank products than the employed. This can be substantiated by the recent pronouncement that Nigeria now has the largest economy in Africa. A feat that was made possible by rebasing the Nigerian economy.

Table 8: Table of socio-economic status / bank products and accessibility (Regional comparison)

Socio Economic status	Bank products												Bank products accessibility									
	Nigeria						South Africa						Nigeria					South Africa				
	ATM	MP	IB	TB	CCDM	Total	ATM	MP	IB	TB	CDM	Total	RA	FA	SA	NA	Total	RA	FA	SA	NA	Total
Employed	539	15	2	1	0	557	463	58	70	12	13	616	53	471	27	6	557	351	220	23	13	607
Unemployed	219	4	0	0	0	223	307	9	6	2	11	335	13	204	4	128	349	120	179	20	100	419
Self-employed	725	12	3	0	3	743	239	14	20	2	11	286	134	555	39	10	738	69	184	7	8	268
Schooling	110	2	1	1	0	114	103	11	2	2	3	121	59	47	5	4	115	75	28	8	12	123
Total	1593	33	6	2	3	1637	1112	92	98	18	38	1358	259	1277	75	148	1759	615	611	58	133	1417

Table 9: Table of personal income / number and types of accounts (Regional comparison)

Personal income (N/R) ('000)	Number of accounts												Types of account											
	Nigeria						South Africa						Nigeria						South Africa					
	1	2	3	>3	0	Total	1	2	3	>3	0	Total	C	S	D	CD	MM	Total	C	S	D	CD	MM	Total
1 – 10	19	38	0	0	183	240	455	62	10	1	90	618	0	80	0	1	109	190	32	491	2	0	2	527
11 – 20	27	45	1	0	44	117	53	64	6	1	37	161	0	73	0	0	1	74	24	100	0	0	0	124
21 – 30	1	76	8	0	3	88	43	29	9	1	11	93	0	85	0	0	0	85	16	66	0	0	0	82
31 – 50	7	159	30	0	0	196	48	15	11	6	2	82	3	192	0	1	0	196	6	73	0	1	0	80
51 – 100	4	135	64	3	2	208	7	1	4	3	2	17	1	204	2	0	0	207	7	8	0	0	0	15
Above 100	5	58	38	1	0	102	11	19	9	7	4	50	0	100	2	0	0	102	20	24	0	0	2	46
Total	63	511	141	4	232	951	617	190	49	19	146	1021	4	734	4	2	110	854	105	762	2	1	4	874

Table 10: Table of personal income / bank product and accessibility (Regional comparison)

Personal income (N/R) ('000)	Bank products												Bank products accessibility									
	Nigeria						South Africa						Nigeria					South Africa				
	ATM	MP	IB	TB	CCDM	Total	ATM	MP	IB	TB	CDM	Total	RA	FA	SA	NA	Total	RA	FA	SA	NA	Total
1 – 10	212	5	0	0	0	217	536	17	14	8	18	593	51	164	2	1	218	179	344	31	23	577
11 – 20	73	2	0	0	0	75	125	16	11	1	3	156	0	72	2	2	76	71	54	10	8	143
21 – 30	81	4	0	0	0	85	58	15	13	2	2	90	1	83	1	0	85	46	37	4	1	88
31 – 50	192	4	0	0	0	196	53	11	13	3	0	80	2	188	6	0	196	28	51	3	0	82
51 – 100	202	4	2	0	0	208	6	5	5	0	1	17	1	199	7	1	208	12	4	1	0	17
Above 100	97	4	1	0	0	102	24	4	18	0	3	49	1	94	7	0	102	45	2	0	0	47
Total	857	23	3	0	0	883	802	68	74	14	27	985	56	800	25	4	885	381	492	49	32	954

From tables 9 and 10, personal income does not influence the number of accounts held by respondents so significantly. The same observation applies to the use of innovative products of the bank.

Table 11: Chi square statistics table

Demographic Variable	Pearson Chi-Square Statistics					
	Nigeria			South Africa		
	Bank Product	No. of Accounts	Types of Accounts	Bank Product	No. of Accounts	Types of Accounts
Age	23.441	273.867	96.481	29.227	65.108	48.630
	(0.102)	(0.000)**	(0.000)**	(0.080)	(0.000)**	(0.000)**
Gender	6.028	18.481	18.743	17.731	11.483	6.087
	(0.197)	(0.001)**	(0.001)**	(0.003)**	(0.022)*	(0.029)*
Income	8.446	721.784	448.021	186.529	303.407	119.587
	(0.585)	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Education	12.264	1334.977	412.190	178.318	263.455	94.027
	(0.726)	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Employment	13.917	517.448	203.323	71.027	233.606	59.313
Status	(0.306)	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000**)

P-values are in parentheses (*10% significance; ** 5% significance)

The results obtained in the table 11 above (high Chi-Square statistics coupled with very low probability values) indicate highly significant association between the various demographic variables and the dependent variables (bank products, number of accounts and types of accounts) with the singular exception of bank products association with the explanatory variables in Nigeria. This is apparently due to the poor condition of infrastructural facility in Nigeria compared to South Africa.

Table 12: Correlation Table (South Africa)

Correlates	Age	Gender	Education	Status	Income	No of a/c	Acct type	Bank Pdt
Age	(1)	(-0.043)	(0.111)**	(-0.052)	(-0.313)**	(0.041)	(-0.111)**	(0.017)
Gender	(-0.043)	(1)	(0.105)**	(-0.103)**	(0.089)**	(0.038)	(-0.009)	(0.111)**
Education	(0.111)**	(0.105)**	(1)	(-0.346)**	(0.703)**	(0.323)**	(-0.179)**	(0.282)**
Status	(-0.052)	(-0.103)**	(0.346)*	(1)	(0.323)**	(-0.177)**	(0.153)**	(-0.099)**
Income	(0.313)*	(0.089)**	(0.703)**	(-0.323)*	(1)	(0.420)**	(-0.162)**	(0.325)**
No of a/c	(0.041)	(0.038)	(0.323)**	(-0.177)**	(0.420)**	(1)	(0.086)*	(0.258)**
Acct type	(-0.111)**	(-0.009)	(-0.179)**	(0.153)**	(-0.162)**	(0.086)*	(1)	(0.011)
Bank Pdt	(0.017)	(0.111)**	(0.282)**	(0.099)**	(0.325)**	(0.258)**	(0.011)	(1)

Correlation coefficient is in parenthesis
** Correlationis significant at the 0.01 level (2-tailed)
* Correlationis significant at the 0.05 level (2-tailed)

Table 13: Correlation Table (Nigeria)

Correlates	Age	Gender	Education	Status	Income	No of a/c	Acct type	Bank Pdt
Age	(1)	(0.095)**	(-0.225)**	(0.175)**	(-0.172)**	(0.357)**	(0.281)**	(-0.040)
Gender	(0.095)**	(1)	(0.014)	(0.004)	(-0.053)	(0.068)*	(0.042)	(0.014)
Education	(-0.225)**	(0.014)	(1)	(-0.321)**	(0.566)**	(-0.469)**	(-0.531)	(0.046)
Status	(0.175)**	(0.004)	(-0.321)**	(1)	(-0.132)**	(0.266)**	(0.219)**	(-0.020)
Income	(0.172)**	(0.053)	(0.566)**	(0.132)**	(1)	(0.437)**	(0.561)**	(0.035)
No of a/c	(0.357)**	(0.068)*	(-0.469)**	(0.266)**	(-0.437)**	(1)	0.791)**	(0.001)
Acct type	(0.281)**	(0.042)	(-0.531)**	(0.219)**	(-0.561)**	(0.791)**	(1)	(-0.019)
Bank Pdt	(-0.040)	(0.014)	(0.046)	(-0.020)	(0.035)	(0.001)	(0.019)	(1)

Correlation coefficient is in parenthesis
** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

The correlation analysis was carried out to test the five hypotheses in the case of South Africa. The correlation analyses results reflected in tables 12& 13 suggest that each of the five variables is significant either at 0.01 or 0.05 levels with 2-tailed test in both South Africa and Nigeria respectively. These results corroborated the ones obtained from the Chi-Square statistics affirming the significance of the relationship between demographic variables and choice of bank products by the customers.

Table 14: Test of Robustness

Variables	ANOVA		ROBUST TEST (Brown-Forsythe)	
	F-Statistics	Sig.	B-F Stat	Sig.
Age	107845.201	0.000	108186.574	0.000
Gender	8.441	0.000	8.457	0.000
Education	59.567	0.000	59.214	0.000
Status	22.659	0.000	22.250	0.000
Income	20.158	0.000	19.924	0.000
No of accounts	9.437	0.000	9.419	0.000
Type of accounts	11.781	0.000	11.604	0.000
Type of products	1.204	0.307	1.206	0.306

Source: Authors computation

Further, the ANOVA and Brown-Forsythe test of robustness were conducted and the results were as shown in table 14. The results suggest that the assumptions of normality and homogeneity of variances across samples do not hold thereby justifying the use of non-parametric method of analysis. The results validate the findings of the study and affirm its robustness.

Discussion: This study investigates the influence of demographic attributes on bank products appeal to customers in Nigeria and South Africa. The results of the analyses are as presented in the tables 1-11. The study made use of primary data generated from the two countries. Non parametric analysis was adopted considering the fact that the data were categorical in nature. The results suggest that demographic variables do have a significant influence on customers bank products appeal in the two countries selected for the study. The only exception being the insignificant association obtained between more demographic variables and bank products for Nigeria compared to the case of South Africa. This is obviously due to the poor infrastructural development of the Nigerian nation compared to South Africa. The observed significant relationship between education and bank product appeal is consistent with the various demographic variables and the explained variables is consistent with the finding of Aregbeyen (2011) who in his study observed that 52% of the population he studied with tertiary education have bank accounts, while 32% with secondary education have bank accounts while 12% and 4% have primary education and no education respectively. Several other studies also supported the findings of this study which include (Mokhlis, Salleh, and Mat, 2011; Okoe, Osarenkhoe, and Hinson, 2013; Wan, Luk, & Chow, 2005; Cohen, Gan, Hwa and Chong, 2006; Ukenna, Okoye, Ugwuomu and Monanu 2012). Correlation analysis was carried out to complement the cross – tabulation and Chi – Square test. From the correlation analysis, it is apparent that there exists a significant relationship between bank products appeal and educational level. The effect in South Africa is however more pronounced than that of Nigeria apparently due to the financial inclusion policy entrenched in the regulatory policy of the country. This is equally true of personal income.

5. Conclusion

The paper concludes that there exist significant relationships between bank customers' demographic variables and bank products appeal across Nigeria and South Africa. The study also reveals that the influence of demographic variables on bank innovative products appeal in Nigeria is not significant owing to the poor state of infrastructural facility. The import of these findings places an obligation on the regulatory authorities of Nigerian financial system to consider the need for infrastructural upgrade in their policy decisions. Also, the South African Financial Regulatory Agency is advice to relax the regulatory framework a little to be able to draw more of the unbanked self – employed populace. This no doubt will boost the economic performance further. Moreover, the findings of this study are expected to inform banks managements' strategies for effective and efficient coverage of their target markets. These will promote efficiency of the respective financial systems of these countries.

Recommendations: As banking environment becomes progressively sophisticated, it is needful that banks become more customer-centric owing to the significance influence of demographic variables in customers' preference of bank products. This will enhance effectiveness and uniqueness of value offering to their

customer segments thereby promoting competitiveness. Further, the study recommends policy intervention from the regulators to drive infrastructural upgrades to better reach customers with diverse products. Finally, a more financial inclusion policy is required to reduce the unbanked populace thereby promoting better financial intermediation role of banks in the two countries thereby boosting economic performance. Subsequent studies can extend the current discourse by looking into the issue of gender inequality in access to bank credits with a view to ascertaining the possibility of lop-sidedness in access to bank credit on gender basis and its implication(s) for the economy, management practice and the society.

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Investigating the Relationship between Organizational Culture and Organizational Justice among Health Workers in Turkey

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Abstract: To achieve profits, management has to put in place several inputs. Of all the inputs, human resources or the employees are the most important and yet, the most unpredictable. Research has identified organizational culture and organizational justice as two factors enabling employee satisfaction. Upon, their identification, research has continued into these areas as two separate fields and has come up with several results. However, little is known on how these two interrelate and their effect on one another. This study sought to provide this information by investigating the correlation between these two factors. To do this, a cross-sectional survey was carried out among 223 health workers from a public hospital in Malatya, Turkey during May and June 2014. Out of a maximum of 20, organizational culture and organizational justice received mean scores of 11.4 ± 2.3 and 14.0 ± 4.8 respectively. Correlation analysis showed that almost all the domains of organizational culture had a statistically significant moderately positive relationship ($0.434 \leq r \leq 0.636$) with the domains of organizational justice with the exception of the power domain. This study finds a statistically positive correlation between overall justice scores and overall culture scores. However the correlation between them is moderate indicating that it is possible that other factors are equally or even more important in their determination. Thus, while managers can use organizational culture as an indication of organizational justice, they should not totally rely on one as a measure of the other.

Keywords: *Organizational Culture, Organizational Justice, employee perception, human resource management, health workers*

1. Introduction

Staff associated with an establishment has their own motives for joining the company. A function of the companies is usually to be a source of developing human relationships (Desson & Clouthier, 2010). When faced with problems, companies provide possible solutions. This is the point of connect for organizational culture. The main concern of organizations is to make profits. However, to achieve this, organizations must ensure a secure and healthy environment for the employees through which they can reach their goals. Organizational culture points to behaviours done by a set of people inside a company. Employees incline towards certain attitudes to conform and be efficient (Peters & Waterman, 1982). We can then say that organizational culture compresses of norms and values. Organizational justice is another major part of viable companies. It is a function of how fair a company is (Colquitt, Conlon, Wesson, Porter & Ng, 2001). Organizations could their employees to adapt their values and norms via their cultures. Thus, they may constitute a link between their staff and institution. Successful businesses shape their organizational culture in accordance with their aims and objectives and take precautions to protect this (Schneider, Ehrhart, & Macey, 2013). The effect of organizational culture on how justice is viewed has also great importance on employees in the aspects of catching organizational aims and making employees adapted to organization. The ones who have not organizational justice perception, which also includes justice perception in working environment can not adapt organizational culture. The importance of both organizsational culture and justice to the cohesiveness of employees and in turn continued successs of the business has been established on other studies (Schein, 2006; Shao, Rupp, Skarlicki & Jones, 2013). Recent development in the study of organizational justice has seen the development of new domains as well as multi-level research into group setings as to the interactions between the various domains of organizational justice (Goodin, 2010; Usmani & Jamal, 2013). However, little is known as regards the role of organizational culture in either promoting or hindering organizational justice. This information is crtical to managers as it would increase their understanding of the mechanics that shape organizational culture and justice, both factors which are of immense importance to rowth and success of their establishment. This study seeks to provide this information by investigating the relationship of organizational culture with organizational justice.

2. Literature Review

Organizational Justice: The concept of organisational justice, originated from Greenberg in 1987, and it is the way an employee perceives the company's deeds, choices and engagements and the way they influence the staffs' own attitudes and actions. Organizational justice is a term very similar to concept of fairness. In every organization, employees are sensitive to decisions made on an everyday basis by their employers and/or management, and group them as either unfair or fair. The pattern of these judgements influences the employee's behaviour and has been shown to have an effect on employee motivation, retention and output. The importance of organizational justice should be of paramount importance to the management as it is critical to the success of any establishment. In fact, it has been described as the glue that allows employees to work together in an effective manner (Cropanzana, Bowen & Gilliland, 2007). The importance of organizational justice has resulted in the large amount of literature available to managers on the subject in relation to many other aspects of the workplace (Frenkel, Li & Restubog, 2012; Shao et al., 2013). Analysis of the literature on organizational justice has revealed 3major parts to organizational justice, i.e. distributive justice, procedural justice and interactional justice.

Distributive justice: Distributive justice has to do with the allocations or outcomes that some employees get and others do not. Distributive justice deals with the basic truth that it is impossible to treat all employees in the exact same way. Thus, distributive justice requires that the distribution of results is segregated in the workplace based on the share of input received by each employee. Thus, employees are worried with the proportion of their input to their rewards. This description of distributive justice has its backgrounds grounded in the equity theory. Cropanzana, Bowen, & Gilliland (2007) opine that the equity theory is interested in the ratio of how much employees get to how much we contribute. Thus, it would be termed as distributive fair if a particular employee received less than another but was also expected to contribute less than his colleague with the higher pay. However, modern developments in the study of distributive justice have highlighted other components or factors that are to be taken into consideration in the conceptualizing distributive justice. The allocation rules of equality (to each the same), and need (to each in accordance with the most urgency) have also gained prominence with researchers suggesting that the management does not have to sacrifice one allocation rule for the other but rather adopt a mix that best suits their organization (Colquitt, Greenberg, & Zapata-Phelan, 2005).

Procedural Justice: Procedural justice is the ways by which results are apportioned. Leventhal (1980) and Leventhal, Karuza, & Fry (1980) originated research work in the area of procedural justice and concluded that it consists of the basic principles of consistency (implying staff are given equal treatment), lack of bias (implying no discrimination) and correctness when making decisions. In addition, procedural justice deals with the methods used in reaching decisions, emphasizing such principles as the fact that decisions must be reached after adequate input by all stakeholders and that norms of practice are not violated(Cohen-Charash & Spector, 2001; Colquitt et al., 2005).Studies show that even in the cases of unfavourable decisions, adequate attention to procedural justice can lead to greater support of the decisions and increased t rust and commitment to the employers. For example, Mauborgne & Kim (2005) in their book opined that fair processes had the ability to stimulate intellectual and emotional recognition which, in turn, builds trust and commitment culminating in voluntary cooperation in execution of agreed decisions.

Interactional justice: It simply alludes to the manner of treatment of a person t o another. Interactional justice is exhibited when information is shared to all who require it in an appropriate manner with speech lacking in vulgar or lewd remarks (Blodgett, Hill & Tax, 1997). Colquitt et al. (2001) grouped interactional justice in to two main aspects. The first aspect, otherwise known as informational justice refers to the truthfulness of an employee and/or employer and the provision of adequate justifications when results do not come out as favorably as expected. The second part, also known as interpersonal justice, refers to the respect and dignity with which one treats another (Bies & Moag, 1986; Blodgett et al., 1997; Skarlicki & Folger, 1997). Both aspects are equally important. Since interactional justice focuses on personalized transactions, employees often request it from supervisors or the management. Thus, as found out in a study by Skarlicki & Latham (1996), training supervisors and management staff to provide explanations and apologies (informational justice) and to treat their reports with courtesy and respect (interpersonal justice)

yielded improved relations with the employees. Current research on organizational justice has provided 2 new components of organizational justice. They are temporal and spatial justice

Temporal justice: Goodin (2010)originated the idea of time justice with emphasis the authority each individual has over his or her time. He defined it as 'having discretionary control over one's time'. This new component of organizational justice arose out from the same concept but in a different setting. Temporal justice in an organization is concerned with fair distribution of time. It is a function of how each employee views the amount of time given him to complete tasks or in another sense how time-consuming his tasks are (Usmani & Jamal, 2013).

Spatial justice: In general terms, spatial justice is a fixated and thoughtful stress on the geographical domain of justice. It is the equitable allocation of resources across geographical units (Usmani & Jamal, 2013). Geologically irregular improvement also provides a context for understanding injustice in the workplace (Soja, 2009). Spatial justice has an impact on the circulation of resources across zones (Lefebvre, 1968 & 1972). Present-day research into organizational justice has shed light on the factors that make staff care about justice (content theories) and the procedures that result in both the creation of fairness perceptions, e (process theories) (Rupp, 2011). In addition, recent research also has shifted attention from studying the degree to which employees view themselves as being treated fairly to how employees perceive the treatment of others as either fair or unfair. This has also led researchers to consider employees' reactions to corporate social responsibility which is now being treated as a special case of third-party justice perceptions (Skarlicki & Rupp, 2010; Topa, Moriano & Morales, 2013). Finally, research on organizational justice has become more and more multilevel, exploring how shared perceptions of justice form within work groups and organizations (justice climate), and has dealt with how justice perceptions and reactions vary across cultural groups (e.g., organizational and national cultures) (Li & Cropanzano, 2009; Rupp, 2011).

Organizational Culture: Organizational culture has been defined as "a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (Schein, 2006). With this definition, it becomes obvious that the term organizational culture applies to any institution be it schools, clubs, governments, companies or even the family. It is developed over time as continued patterns of thinking and actions eventually become routine and acceptable to any group. In fact, such pattern becomes a norm that it becomes expected of members of such a group, with anyone not adhering to it seen as being odd or a misfit. Research bearing on the topic of organizational culture dates as far back as the Henry Mayo studies of the 1930's when he described work group cultures. However, the delineation of organizational culture as a field of its own did not occur until the 1980's when researchers such as Deal and Kennedy (1984), Ouchi(1981), and Peters and Waterman (1982) published their books on the subject. Since then, the body of academic literature bearing on the subject as a real one with tangible effects has grown. Researchers have deduced that organisational culture is just like the personality of an individual.

However due to the different perspectives from which the several authors have looked at organizational cultures, there have been many definitions and determinants associated with organisational culture. For instance, while Deal and Kennedy (1982) named four broad kinds of cultures, namely the tough-guy/macho culture, "the work-hard/play-hard culture, the bet-your company culture and the process culture", Handy, (1996) explained organisational culture by via4kinds of classifications, "power, role, task and person cultures. Continued research into organization culture came up with the organizational culture model. This descriptive model is aimed at investigating the discrepancies if any between the prevailing and favoured cultures in a company. The organisational culture model lists the four dimensions of culture orientation (power, role, achievement and support) and measures them in two manners of operation, namely formalisation and centralisation (Carroll & Harrison, 1998). Each mode can then be quantified as either high or low.

Importance of organizational culture: As has been deduced from management theory, organizational culture has powerful effects on the way organizations and its members think and behave. Thus organizations with the right kind of culture that matches with the kind of enterprise in which an organization is engaged has been generally noticed as being among the most important factors of how effective or successful the

organization will be. Barney (Barney, 1986)attributed the continued financial excellence of major conglomerates as Procter and Gamble, MacDonald's etc. to their strong organizational culture. Other benefits of a strong organizational culture include being a powerful lever for guiding behaviour (Deal & Kennedy, 1982), facilitates goal alignment (Brown & Dodd, 1998) and cohesiveness, loyalty, lower employee turnover and organisational commitment among employees (Martins & Terblanche, 2003). All of these benefits are garnered because of the manner in which organisational culture shapes several aspects of an organisation's activities. Examples are:

- Making right decisions
- Appropriate behaviour and work relationships
- Manner of task implementation
- Efficacy of processes
- Willingness to adapt and

Summarily, the kind of culture prevalent in an organization is an indicator of the level of success of new initiatives embarked upon by the organization and the possibility of it achieving its overall goals.

3. Methodology

The aim of this study is to examine the relationship between organizational culture and organizational justice. To do this, the study will determine the perceptions of staff on each of the dimensions of culture and justice that are overwhelming and available in organization. The quantitative research methods were used in this study for data collection purposes. Quantitative approach is considered to be the best way to measure individual's perceptions because, as stated by Edwards (1998), "quantitative methods have the advantage of allowing researchers to measure and control variables.survey research method was conducted to measure the relationships among studied concepts". This method allows for statistical analysis, and more time efficient (Meredith, Raturi, Amoako-Gyampah, & Kaplan, 1989).

Hypothesis: The hypothesis which was adopted by the study as follows:
H_0: There is a no relationship between dimensions of culture (achievement, support and hierarchy) and justice (procedural, interactional and distributive).
H_1: There is a relationship between dimensions of culture (achievement, support and hierarchy) and justice (procedural, interactional and distributive).

Sample: The data were collected from 258 full-time health care employees from a public hospital in Malatya, Turkey during May and June 2014. 35 surveys had to be discarded due to incomplete information. 223 surveys were included in the analysis.

Instruments: NihalMamatoğlu (2006) developed organizational culture scale using the Harrison's organizational culture model (hierarchy, achievement, power, support). The questionnaire has 16 questions and quantifies each of the 4 domains of organizational culture. Each of these domains has 4 structured questions to measure it. The questionnaire used a five-point Likertscale for respondents to rate dimensions of organizational culture. The Organizational Justice scale was adapted for use in this study. İt is a standardized questionnaire developed by Colquitt et al. (2001) it consists of 20 items measuring the 3 domains of justice this study seeks to examine i.e.*distributive, procedural and interpersonal* justice. The items are rated on a 5-point scale (1 = "Very few" to 5 = "Substantially"). Reliablity tests were conducted on data received from a pre-test among a similar population in another city (Istanbul), Cronbach Alpha scores of 0.94 was obtained indicating that the ability of the questionnaire to measure what is intended is very strong. Overall scores were calcluated by adding the scores for the individual domains.

4. Results and Discussion

Socio-demographic characteristics: Almost two-thirds of the respondents (65.9%) were female with other 76 (34.1%) as male. One hundred and seventy-six respondents representing a little more than three-quarters (78.9%) were married leaving 47 respondents (21.1%) as single. The majority of the respondents had completed tertiary education (76.7%). The rest of the socio-demographic characteristics are shown in Table 14.

Table 14: Socio-demographic characteristics of respondents

	N	%
Gender		
Male	76	34.1
Female	147	65.9
Age Group		
Under 20	4	1.8
20-29	43	19.3
30-39	103	46.2
40-49	57	25.6
50 and above	16	7.2
Marital Status		
Single	47	21.1
Married	176	78.9
Educational level		
Basic	52	23.3
Tertiary	171	76.7
Job position		
Doctor	23	10.3
Nurse	84	37.7
Other	116	52.0
Tenure		
10 years or less	151	67.7
Above 10 years	72	32.3
Wage		
0-2000 Tl	64	28.7
More than 2000Tl	159	71.3
Work status		
Public	165	74.0
Private	58	26.0

Culture and Justice Scores: The average score for each of the variables is listed in

Table ***15***. It shows that all 4 domains of the organizational culture category had around the same average scores (Max=12.7, Min= 10.5). Of the 4 domains however, power domain had the highest score (12.7 ± 2.7) with hierarchy having the least score (10.5 ± 3.3). In the organizational justice category, greater variance was observed between the domains. While interactional justice had a very high score (17.3 ± 6.7), distributive justice had below average scores (9.8 ± 4.3). The overall average score for organizational justice was 14.0 ± 4.8.

Table 15: Descriptive statistics for Culture and Justice Scores

Category	Variable	Mean* ± S.D
	Achievement	11.2 ± 3.4
	Power	12.7 ± 2.7
CULTURE	Support	11.2 ± 3.3
	Hierarchy	10.5 ± 3.3
	Overall	11.4 ± 2.3
	Procedural	14.8 ± 5.3
	Interactional	17.3 ± 6.7
JUSTICE	Distributive	9.8 ± 4.3
	Overall	14.0 ± 4.8

* The maximum score for each domain is 20 and minimum is 0

Relationship between organizational justice and organizational culture: Inferential analysis was carried out on the various domains of both organizational culture and organizational justice. Results show that there moderately positive correlations between the domains of organization and the domains of organizational justice, with all the results being significant at less than 0.1%. The stand out results however, were in the correlation of the power domain, where power was negatively correlated with each of the domains of organizational justice and with the overall scores for organizational justice ($-0.149 \leq r \leq -0.071$). However, of the four correlation results, the only one statistically significant at 5% level of significance was the correlation between the power domain and distributive justice ($p= 0.026$) (

Table ***16***).

Table 16: Correlation analysis between organizational culture and organizational justice

		ORGANIZATIONAL JUSTICE			
		Procedural R (p-value)	**Interactional R (p-value)**	**Distributive R (p-value)**	**Overall R (p-value)**
ORGANIZATIONAL CULTURE	Achievement	0.582 (<0.001)	0.557 (<0.001)	0.446 (<0.001)	0.606 (<0.001)
	Power	-0.071 (0.288)	-0.124 (0.065)	-0.149 (0.026)	-0.128 (0.056)
	Support	0.636 (<0.001)	0.570 (<0.001)	0.434 (<0.001)	0.629 (<0.001)
	Hierarchy	0.570 (<0.001)	0.545 (<0.001)	0.493 (<0.001)	0.610 (<0.001)
	Overall	0.622 (<0.001)	0.565 (<0.001)	0.450 (<0.001)	0.626 (<0.001)

Multiple regression analyses were run to predict the overall justice score from each of the domains of organizational culture. These variables statistically significantly predicted overall justice score $F(4, 218) = 51.613$, $p<0.001$ $R^2=0.486$. All the four domains added statistically significantly to the prediction ($p<0.05$) (

Table 17)

Table 17: Regression Analysis for Overall Justice Score

Dependent variable	**Independent variables**	**R^2**	**Beta**	**p**
Overall Justice Score		0.486		0.002
	Achievement		0.289	0.01
	Power		-0.202	0.22
	Support		0.431	<0.001
	Hierarchy		0.384	<0.001

Similar results were obtained by Usmani and Jamal (2013) in their study on organizational justice. The difference in the power domain observed could be as a result of the fact that Usmani and Jamal conducted their study in Pakistan, a country Hofstead (1997) described as being high on power distance to the extent that the employees almost take it as a requirement for them to face injustices from their superiors at work. They may be ignorant about employee rights and the concept of equity within a company. And if they did, fear of being laid off as well as a high unemployment rate makes them accept whatever conditions there are presented with. On the contrary, Turkey belongs to Europe where employee rights are well recognized and workers do not fear being unfairly treated due to their opinions. The average scores received in the justice domains were also similar to those obtained by Kivimäki, Elovainio, Vahtera, & Ferrie, (2003) in their study on organizational justice in Finland. This may be due to the fact that both Countries are in the same continent and as such similar circumstances prevail in the workplace. The lowest scores of distributive justice may be a pointer to the continued shift of the management from focusing on how to distribute resources to their

manner of decision making and interaction with employees. The highest scores in the interactional justice domain further pint to this fact. This study finds a statistically positive correlation between overall justice scores and overall culture scores. However the correlation between them is moderate indicating that it is possible that other factors are equally or even more important in their determination. Thus, managers should not totally rely on one as a measure of the other.

This study was conducted to snapshot the perceptions of the health care employees at a time and analysis have been performed with the help of their responses. Identifying the changes on the perceptions of the health care employees after a period of time may be valuable for the researchers for achieving a better understanding on these concepts. The changes and the reasons of the changes maybe helpful for the managers in making correction in their organization culture, work environment, management styles, and job and organization related arrangements. So, a longitudinal study may be applied to evaluate the shift in time. This study is conducted with the participation of a state hospital organizations in Malatya, Turkey. A broader study may be applied the proposed model to various hospitals from various countries.

5. Conclusion

Practically speaking, knowing how perceived distributive justice and procedural justice affect the organizational culture can influence management decisions in determining the mechanism to effect in order to ensure that employees are committed and goals are met. This study finds a statistically positive correlation between overall justice scores and overall culture scores. However the correlation between them is moderate indicating that it is possible that other factors are equally or even more important in their determination. Thus, managers should not totally rely on one as a measure of the other.

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A Study on the Deterring Factors to Entrepreneurship among Graduates of Agriculture and Natural Resources: Case Study in Bushehr, Iran

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Abstract: The purpose of this research was to study deterring factors to entrepreneurship among graduates of agriculture and natural resources. A survey approach was used in this research. The statistical population included ninety eight graduates of agriculture and natural resources who are working in private or governmental business units in the province of Bushehr, Iran. A questionnaire was developed to interview the subjects of the study of which the validity and reliability were estimated based on the opinions of a panel of experts and Cronbach's alpha coefficient respectively. The results indicated that among personality factors, low self-confidence and low spirit of independence were the most important deterring factors to entrepreneurship. The results also revealed that a weak relation between university and business environment, insufficient practical and theoretical education, high risk of investment in the agriculture, and legal and administrative restrictions were the most important environmentally deterring factors. Based on this research finding, male graduates had a higher spirit of opportunity recognition and independence than female graduates.

Keywords: *Agriculture, Deterring Factors, Entrepreneurship, Graduate*

1. Introduction

The third millennium seems to be marked by a renewal of the entrepreneurial spirit which affects all countries and all sectors of economic and social life including business start-ups or takeovers, associations and even public services (Fayolle, 2007, p. 11). The encouragement of entrepreneurship as a possible source of job creation, empowerment and economic dynamism has captured the attention of both researchers and policy makers (Dzisi, 2014).Entrepreneurial activities are not only the incubator of technological innovation, but they also provide employment opportunities (Turker & Selcuk, 2009). In developing countries, however, the university graduates' lack of interest and inability to engage in entrepreneurial activity seems to be the main issue (Shambare, 2013). Scholars have emphasized that entrepreneurship can improve youth livelihood and economic independence in developing countries (Awongbenle & Iwuamadi, 2010; Chigunta, 2002).

The unemployment of the agricultural and natural resources graduates has become one of the main predicaments of the higher education system in Iran. Increased enrolment at higher education institutions has put more graduates into the labor market. In spite of that, there has not been an increase at the rate at which agricultural and natural resources graduates are employed. The consequences have been ignoring the potentials of these graduates, wasting educational assets, and political and economic pressures on the government and policymakers. Therefore, the need to address this issue more seriously has become apparent evermore. One of the main prerequisites for facilitating agricultural graduates' employment is encouraging them to do business (create new businesses, self-employment, intra preneurship and so on). It is therefore sensible to assume that entrepreneurship is a solution to the agricultural and natural resources graduates' unemployment problem (Setiawan, 2014; Shambare, 2013).Graduates who are more mature are more likely to be intended towards entrepreneurship (Sandhu, Sidique & Riaz, 2011). For this reason, further attention should be paid to developing entrepreneurship spirit and abilities of university graduates. In other words, graduates must be able to recognize present and future opportunities, so that through their achieved knowledge and expertise they may perform the needed actions for better exploitation of those opportunities,

and through establishment of a business, get some earnings. In this regard, educational systems must try to move obstacles away from entrepreneurship, innovation and creativity.

Entrepreneurship is a multidimensional phenomenon that cuts across disciplines. The phenomenon can be studied from many different viewpoints such as economy, sociology, financial theory, history, psychology or anthropology (Bjerke, 2007, p. 73). Historically scholars progressed in their efforts by asking questions about who is an entrepreneur (trait approach), what environment forms an entrepreneur (demographic-sociological approach), and why somebody chooses to become an entrepreneur (behavioral approach). Where initially scholars focused on the traits of an entrepreneur, currently the behavior itself is the main dimension of interest (Weber, 2012, p. 36). Entrepreneurship is extensively being accepted as an important means and a useful alternative for income generation in young people (Awongbenle & Iwuamadi, 2010; Fatoki & Chindoga, 2011; Ryan, 2003).

In order to investigate entrepreneurship among graduates of agriculture and natural resources, a definition of entrepreneurship is necessary. In defining entrepreneurship, there is significant debate among researchers and various definitions have provided to explain entrepreneurship. There are, in principle, three different methods to define entrepreneurs and entrepreneurship: 1) using those skills characterizing entrepreneurs; 2) using those processes and events which are part of entrepreneurship; and 3) using those results that entrepreneurship leads to (Davidsson, 2003). Most definitions are a mix of these three. According to Sathiabama (2010), entrepreneurship is a dynamic process of creating wealth by individuals or groups of individuals. Coulter (2001, p. 6) defined entrepreneurship as "the process whereby an individual or a group of individuals use organized efforts and means to pursue opportunities to create value and grow by fulfilling wants and needs through innovation and uniqueness, no matter what resources are currently controlled". Bjerke (2007, p. 17) believed that in order to "better understand our new entrepreneurial society, entrepreneurship should only be specified by its results. In other words, Entrepreneurship = to create new user value". Kuratko and Hodgetts (2004, p. 30) stated that "entrepreneurship is a dynamic process of vision, change, and creation. It requires an application of energy and passion towards the creation and implementation of new ideas and creative solutions". Essential ingredients include the willingness to take calculated risks – in terms of time, equity, or career; the ability to formulate an effective venture team; the creative skill to marshal needed resources; the fundamental skill of building a solid business plan; and, finally, the vision to recognize opportunity where others see chaos, contradiction, and confusion. This paper adopts a definition of entrepreneurship along the lines proposed by Coulter (2001). Graduate entrepreneurship is a process taken by a graduate to start a business in terms of an individual career orientation (Rwigema & Venter, 2004).

An entrepreneur is someone who perceives and even creates an opportunity and establishes an organization to pursue it. The entrepreneurial process includes all the activities and actions that are part of perceiving and creating opportunities and establishing organizations to pursue them. This process includes personal, sociological, organizational, and environmental factors that give birth to a new enterprise and influence how it develops from an idea to a viable enterprise (Bygrave and Zacharakis, 2011, p.p. 49-50). Entrepreneurs not only create new businesses but also increase employment opportunities that lead to the creation of sources of new discoveries, new technologies, and innovations (Iskandarini, 2014). The entrepreneurial process is, *per se*, an evolutionary mechanism in which a person's abilities to take the opportunity of becoming a new agent (entrepreneur) turns into the capacity of identifying and evaluating an opportunity, in pursuing resources and planning how to use this opportunity. Thus the entrepreneurial process is creative because the entrepreneur re-elaborates resources and opportunities, involving human abilities and intangible factors (Gurrieri, Lorizio & Stramaglia, 2014, p. 3).

Researches in the field of entrepreneurship broadly analyze the motivation that drives the entrepreneur to start a new business (Iskandarini, 2014). However, there is still a general lack of in-depth research on youth entrepreneurship, especially as it relates to the key constraints that impede young people from starting and maintaining a successful business in a developing country context (Dzisi, 2014). This research seeks to address this gap, because identifying the actual barriers to the creation of new businesses in agricultural and natural resources domain can help planners and policymakers to remove or decrease entry barriers and improve business formation in agricultural sector.

Past researches showed the following to be the most important obstacles to starting a business: lack of entrepreneurial and managerial skills, training obstacles, and lack of technical knowledge (Kvedaraite, 2014; Dzisi, 2014; Jafarnejad, Abbaszadeh, Ebrahimi, and Abtahi, 2013; Sherazi, Iqbal, Asif, Rehmanand, & Hussain Shah, 2013; Fatoki, 2010; Herrington, Kew, and Kew, 2009; Papulova and Makros, 2007; Herrington and Wood, 2007; Moy,Luk, Sheehan, and Sammapan, 2001); lack of information on creating business (Kvedaraite, 2014; Jafarnejad et al., 2013); financial constrains and poor possibilities to receive a loan and high costs of receiving a loan (Kvedaraite, 2014; Dzisi, 2014; Jafarnejad et al., 2013; Mehrez, 2014; Sherazi et al., 2013; Ooi and Ahmad, 2012; Fatoki and Chindoga, 2011; Awongbenle and Iwuamadi, 2010; Fatoki, 2010; Lougui, 2010; Atieno, 2009; Chu, Benzing, and McGee, 2007; Kozan, Oksoyand, and Ozsoy, 2006; Sarri and Trihopoulou, 2005; Bitzenis & Nito, 2005; Pretorius and Shaw, 2004; Ozsoy, Oksoyand, & Kozan, 2001);high labor cost and high operating cost (Kvedaraite, 2014; Ooi and Ahmad, 2012; Moy et al., 2001); public bureaucracy, strict government regulation and lack of government support (Mehrez, 2014; Owusu-Ansah and Poku, 2012; Fatoki, 2010; Zhuplev & Shtykho, 2009; Jamali, 2009; Bitzenis & Nito, 2005;Lamei, 2002;Macculloch, 2001; Moy et al., 2001); crime and corruption (Sherazi et al., 2013; Fatoki, 2010; Arzeni, 2004); social and technological obstacles (Kvedaraite, 2014; Mehrez, 2014; Sherazi et al., 2013; Sarani, Shahpasand, & Savari, 2013); management and infrastructure obstacles (Sherazi et al., 2013); taxation, competitive environment and aversion to risk (Ooi and Ahmad, 2012; Sandhu, Sidique, & Riaz, 2011; Fatoki, 2010; Benzing et al., 2009; Kazela, 2009; Bitzenis & Nito, 2005); lack of social networking and negative social and cultural attitude to entrepreneurship (Dzisi, 2014; Sandhu et al., 2011); lack of resources (Sandhu et al., 2011; Pretorius and Shaw, 2004), and difficulty in recruiting good and reliable staff (Jafarnejad et al., 2013; Benzing et al., 2009; Zhuplev & Shtykho, 2009).

Drawing from the extant literature mentioned above, it was observed that youth and university graduates experience a multitude of barriers limiting their participation in entrepreneurial activities. For that reason, this study investigates deterring factors to entrepreneurship among graduate of agricultural and natural resources. Consequently, the present research is looking for the answers to the following questions:

- How is the level of entrepreneurial spirit of the graduates of agriculture and natural resources (personality characteristics)?
- What are the most important environmental and personality deterring factors to entrepreneurship among graduates of agriculture and natural resources?
- What meaningful difference is there, between gender, background of cooperation with business units, university (the place of education), and education level, with personality characteristics of the entrepreneur?

2. Methodology

A descriptive method was applied in the research work. The statistical population was all agriculture and natural resources graduates of the southern province of Bushehr, who graduated with B.Sc. or M.Sc. degrees from agriculture faculties (governmental or non-governmental universities) during 1991-2001. During the abovementioned period of time, these graduates who are 98 in number (N=98) were able to establish a business in the fields of agricultural productive or support services, individually or in cooperation with others. These business units were recognized through the organizations related to Jihad-e-Keshavarzi (Ministry of Agriculture of Iran) which have some kind of relations with the target units. The questionnaire used for data collection consisted of 3 sections: the first section contained demographic characteristics of the graduates (such as: gender, graduation year, education level, and conditions of the university where they studied and so on), in the second section there were 20 questions about those personality characters which are influential in entrepreneurial spirit of the subjects (like risk taking, opportunity recognition, need for independence, internal locus of control, moralities, self-confidence, and looking for success), and the third section contains 24 questions about environmental barriers influencing entrepreneurship of agriculture and natural resources graduates of Bushehr province (that divided into three groups namely: constrains of agricultural sector, constrains of the higher education system, and administrative and managerial constrains). The content validity of the questionnaire was assessed by the experts of the agricultural education inspecting the relevance of the items and the unambiguity of their formulation. Cronbach's alpha was estimated for the scales used in the study to ensure internal consistency among the items. The reliability of the scales was 0.75,

0.91, 0.91 and 0.91 for personality characteristics, constrains of agricultural sector, constrains of the higher education system, and administrative and managerial constrains, respectively, which is considered to be an acceptable index for field research. Descriptive statistical analysis and comparison tests were used for data analysis. All data were analyzed using the SPSS for Windows (version 16).

3. Results and Discussion

Among 98 graduates, 66.2% were male and 33.8% were female. 63.1% of the graduates had graduated from governmental universities and 36.9% of them from Azad University. 86.1% of the subjects had B.Sc. degrees, while 13.9% of them had M.Sc. degrees. 22.2% of the graduates had graduated from faculties between1991-1994, 20% between 1995-1998, and 55.4% of them between1999-2002.

Personality Deterring Factors to Entrepreneurship: Table 1 shows the responses to items contained in personality deterring factors scale. Among personality factors, low self-confidence (*M*=1.86, *SD*=0.33) and low spirit of independence (*M*=1.97, *SD*=0.87) were specified as the major constrains to entrepreneurial spirit, respectively. As it is seen in Table 1, paying attention to moralities (*M*=2.62, *SD*=0.35) and opportunity recognition (*M*=2.29, *SD*=0.46) have high values. It means that the status of paying attention to moralities and opportunity recognition among graduates of agriculture and natural resources was high.

Table 1: Personality deterring factors to entrepreneurship

Variables	Mean	Standard Deviation
Spirit of independence	1.97	0.87
Internal locus of control	2.26	0.55
Risk taking	2.26	0.47
Opportunity recognition	2.29	0.46
Self-confidence	1.86	0.33
Looking for success	2.04	0.30
Considering moralities	2.62	0.35

Environmental Deterring Factors to Entrepreneurship: Researchers have categorized constrains and barriers facing entrepreneurs in various ways. Kvedaraite (2014) divided reasons and obstacles for youth's unwillingness to do business and/or get involved in entrepreneurship into two groups: The first one were intrinsic factors, involving cultural-psychological, demographic and social-economic factors, as well as person's characteristics, values, skills, perception and behavior; the second one were extrinsic factors caused by market (finance, labor market, information) imperfections. Moy et al. (2001) stated that exogenous and endogenous factors were the main challenges/obstacles faced when starting and sustaining new enterprises among students. In this research, environmental deterring factors to entrepreneurship were divided into three groups: constrains of agriculture sector, constrains of higher education system, and administrative and managerial constrains, described in the following paragraphs.

The results revealed that risk of investment in agriculture sector (*M*=2.29, *SD*=0.77) and Society's view of agricultural work (*M*=1.97, *SD*=0.85) were two of the most important obstacles to graduate entrepreneurship in Busher (Table 2). Similar findings were reported by other researchers (Dzisi, 2014; Fatoki, 2010; Mehrez, 2014; Moy et al., 2001; Sandhu et al., 2011; Sarani et al., 2013). Today, the function of agricultural sector has extremely changed around the world. At one time the function of agricultural sector was almost exclusively to satisfy the demand for foods; nowadays its function is much broader. The agricultural sector today provides considerable non-monetary assets, such as job opportunities, employment, economic survival of rural areas and rural development (Gurrieri, Lorizio & Stramaglia, 2014, p. 18). For this reason, policymakers should remove barriers and improve business environment in agriculture sector.

Table 2: Constrains of agriculture sector

Variables	Mean	Standard Deviation

Risk of investment in agriculture sector	2.29	0.77
Pricing system for agricultural products	1.28	0.82
Society's view of agricultural work	1.97	0.85
Late yield of agricultural activities	1.94	0.86

Government activities, both directly and indirectly, influence business activity and government can be seen as the biggest business enterprise at national or local level (Worthington and Britton, 2006; 7). The finding indicated that legal and administrative restrictions (*M*=2.20, *SD*=0.75) were crucial deterring factors to entrepreneurship in regard to administrative and managerial constrains (Table 3). This finding is consistent with previous researches (Sherazi et al., 2013; Fatoki, 2010; Klapper, Laeven & Rajan, 2006; Bitzanis and Nito, 2005; Moy et al., 2001).

Table 3: Administrative and managerial constrains

Variables	Mean	Standard Deviation
Legal and administrative restrictions	2.20	0.75
Information supply about the present entrepreneurial opportunities	2.19	0.79
Government's financial and credit supports	2.31	0.85

Based on the results, a weak relation between university and business environment (*M*=2.56, *SD*=0.81) and insufficient practical education (*M*=2.54, *SD*=0.71) were two main deterring factors to entrepreneurship regarding higher education system (Table 4). The finding is in line with the result obtained by Kvedaraite, (2014), Jafarnejad et al., (2013), Sherazi et al. (2013), Fatoki, (2010) and Moy et al. (2001). Poor education can lessen the employability of individuals, or weaken their entrepreneurial skills (Global business school network, 2013). Herrington et al. (2009) reported that the quality of entrepreneurship training apart from academic qualification is poor and therefore local entrepreneurs and graduate entrepreneurs have poor business and managerial skills.

Table 4: Constrains of higher education system

Variables	Mean	Standard Deviation
Insufficient practical education	2.54	0.71
Insufficient theoretical education	2.46	0.75
A weak relation between university and business environment	2.56	0.81
Experimental methods and learning while working	2.18	0.86
Suitability of educational programs with entrepreneurial business characteristics	2.14	0.87

Table 5: Comparison of the subjects regarding individual attributes about personality characteristics for entrepreneurship

Variables	Background for cooperation with business units		Gender		Graduation year		University of graduation		Education level	
	t	*Sig*	*t*	*Sig*	*f*	*Sig*	*t*	*Sig*	*f*	*sig*
Risk taking	-0.85	0.39	0.71	0.47	0.510	0.60	-1.71	0.09	0.447	0.64
Opportunity recognition	0.44	0.66	2.35	0.02*	2.283	0.11	1.48	0.14	1.045	0.35
Independence	-0.72	0.46	1.49	0.05*	2.319	0.10	-1.42	0.16	0.007	0.99
Internal locus of control	1.29	0.20	0.96	0.33	0.001	0.99	-0.62	0.53	0.440	0.64
Moralities	1.31	0.19	-1.55	0.12	0.0009	0.37	-0.13	0.89	0.970	0.38
Self confidence	0.38	0.70	-1.75	0.08	0.218	0.80	0.49	0.62	1.081	0.34

Looking for success	-1.08	0.28	0.31	0.75	0.370	0.69	1.50	0.13	1.616	0.20
Entrepreneurial spirit	-0.23	0.81	0.96	0.33	0.393	0.67	-0.10	0.91	0.484	0.61

Among the collection of environmental deterring factors to entrepreneurship, a weak relation between university and business environment, insufficient practical and theoretical education, risk of investment in agriculture, and legal and managerial restrictions had the greatest deterring power respectively; while pricing system for agricultural products and late yield of agricultural activities had the modest deterring power to entrepreneurship respectively. Personality characteristics of the subjects regarding gender, background of cooperation with business units, year of graduation, and education level, were compared through F and t test. As it is seen in Table 5, there was a significant difference between opportunity recognition of males (M=2.39, SD=0.40) and females (M=2.11, SD=0.52; t=2.35, p=0.02), in which males had higher opportunity recognition spirit than females. In relation to spirit of independence, there was a significant difference between the male graduates (M=2.12, SD=0.83) and female graduates (M=1.68, SD=0.82; t =1.49, p=0.05), and males' spirit of independence was higher than females. Much research has shown that males are more likely to venture into business compared to females (Dunn, 2004; Sandhu, et al. 2011; Veciana, Aponte, & Urbano, 2005; Chigunta, 2002; Fatoki and Chigonda, 2011).

4. Conclusion

Students graduating from higher education institutions (HEIs) enter an environment that is changing and unstable. Technology and contingent factors are changing the world of work opportunity on a daily basis (Collins, Hannon & Smith, 2004). Providing jobs for a growing population of graduates is one of the most pressing challenges facing the developing world such as Iran. Initiatives that focus on increasing entrepreneurship and increasing employment share a great deal in common, as entrepreneurship can be seen as a special form of employability (Global business school network, 2013). The overall aim of this research was to study the deterring factors to entrepreneurship among graduates of agriculture and natural resources. This study found that low self-confidence, risk of investment in agriculture sector, legal and administrative restrictions, and a weak relation between university and business environment were four important barriers to graduates' entrepreneurship. The results of the research also showed that there was a significant difference between male and female graduates in relation to opportunity recognition and spirit of independence, and male graduates were better than female graduates. Considering these points, paying attention to faculties of agriculture, quantity and quality of the presented education, and their adaptation with characteristics and purposes of entrepreneurial activities are very important. Therefore, providing graduates with more entrepreneurial training and exposing them to entrepreneurial role models can give them the tools to create their own employment. Furthermore, planners and policy makers should change regulations that are unnecessarily restrictive, and should also provide additional sources of funding for entrepreneurs. They should also improve the business environment in agricultural sector, promote a climate of entrepreneurship, and encourage graduates to create their own business and self-employment. The results of this research can help universities that train agricultural and natural resources students, and organizations that employ those students, to better understand the obstacles to entrepreneurship, and will enable them to promote entrepreneurial actions of graduates by overcoming these barriers.

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