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EFFECTS OF INTELLECTUAL CAPITAL ON PROFITABILITY OF LISTED KENYAN COMMERCIAL BANKS

[1]MBUGUA, Solomon Mbuthia & Dr. Gladys ROTICH[2]

[1]MBA Scholar, Department of Commerce & Economic Studies
School of Human Resource and Development
Jomo Kenyatta University of Agriculture &Technology, Kenya
Email:smbugua50@gmail.com or smbugua50@yahoo.com

[2]Lecturer, Department of Commerce & Economic Studies
School of Human Resource and Development
Jomo Kenyatta University of Agriculture &Technology, Kenya

ABSTRACT

Intellectual capital which is the possession of knowledge and experience, professional knowledge and skill, good relationships, and technological capacities, which when applied give organizations competitive advantage has not been fully recognized by Kenyan commercial banks in preparation of financial statements. This happen inspite of banks spending a lot of resources in training its human capital, investing in IT, structural capital and innovation. Therefore there is need to study effects of intellectual capital on profitability of listed Kenyan commercial banks. The study focused on four variables; human capital, structural capital, relational capital and innovation capital. Descriptive research design was used to test how independent variables influenced listed banks profitability. The target population was ten commercial banks that were listed in Nairobi Securities Exchange by 2012. The study used secondary data sources from published audited accounts for last 5 years from 2009-2013 in gathering data for analysis. Descriptive statistical tool MS-Excel and SPSS was used to analyze data. The study found that structural capital and innovation capital affects listed commercial banks of Kenya profitability. The study recommends that Kenyan listed banks to continue with strong control over structural and innovation capital, more allocations for intellectual capital investment be made to the two elements of intellectual capital for more growth in profitability. In addition, Kenyan listed banks to be more focused in making managerial decisions in the areas of its relational and human capital reforms and their utilization to enhance efficiency of generating profit for banks.

Key Words: Human Capital, Structural Capital, Relational Capital and Innovation Capital

INTRODUCTION

A firm's intellectual capital can be thought of as a form of 'unaccounted capital' in the traditional accounting system. The traditional accounting system looks largely at separable assets although recognition is given to some intellectual capital under the heading 'goodwill' (Davies & Waddington, 1999).There is a global trend and demand for more useful and comprehensive non-financial information about the operating activities of firms (Anderson & Epstein, 1996; GRI, 2006). Traditionally, many performance measures have been based around financial aspects, omitting important non-financial aspects including the importance of dynamic capability through accumulating research and development as well as marketing capability over time, to further enhance firm performance (Hsu & Wang, 2010). Besides that, the evaluation of the performance of banks, for example, usually employs financial indices, providing a simple description about the bank's financial performance in comparison to previous periods, (Chen, 2001). By focusing only on financial aspects is not enough for management to deal with the changing business environment.

Statement of the Problem

Over the last two decades, financial sector reforms, technological advancement and globalization have led to significant transformation of the banking industry in Kenya. The banking industry has experienced unprecedented growth coupled with impressive performance over the same period. The industry has remained largely profitable inspite of the economy performing poorly in some years and facing adverse effects of the global financial crisis in 2008. Profits have grown by close to 400% in a span of 13 years moving from 18.8 billion to 89.2 billion in 2011 and Kshs. 107.9 billion in December 2012, making banking the most profitable sector in the economy (Kamau, A. and Were, M. (2013). According to 2012 CBK supervision report on the banking sector in Kenya, audited financial statements as of 2012, the listed commercial banks profitability constituted of 76.69% of profit before tax , 69.36% of total capital and 66.63% of the market size index of the entire sector. The banking market is segmented and constrained with few credit lines. Large banks preferably lend and borrow from each other in the interbank market and will not do so with small banks because of perceived risk or non-existence of credit lines. The Islamic banks likewise trade with sharia compliant banks. The existing structures may thus have an impact on the performance, price setting and efficiency with which Kenyan banks carry out their business, as well as how they respond to policy directives from the regulator, Anne and Maureen, (2013). Traditionally, many performance measures have been based around financial aspects, omitting important non-financial aspects including the importance of dynamic capability through accumulating research and development as well as marketing capability over time, to further enhance firm performance (Hsu & Wang, 2010). Besides that, the evaluation of the performance of banks, for example, usually employs financial indices, providing a simple description about the bank's financial performance in comparison to previous periods, (Chen, 2001). By focusing only on financial aspects is not enough for management to deal with the changing business environment. There exists little or no literature on the effects of intellectual capital on profitability of listed commercial banks in Kenya. This study adds literature on the Kenyan listed commercial banks profitability by examining intellectual capital.

Specific Objectives

i. To determine how human capital affect banks profitability.
ii. To assess if structural capital affect banks profitability.
iii.To find out how relational capital influence banks profitability.
iv.To establish if innovation capital affect banks profitability.

LITERATURE REVIEW

Theoretical Review

Human Capital Theory

This theory emphasizes the value added that people contribute to an organization. It regards people as assets and stresses that investments by organizations in people will generate worthwhile returns. The theory suggests that investment in people results in economic benefits for individuals and society as a whole (Sweetland, 1996). The investment in individual can be made in terms of education, health, nutrition, and any other development that results in long-term benefits. It is important to clarify that the investor in this particular case is an individual who decides whether to invest his or her time, money and other resources into some activity that will benefit his or her human capital.

The theory is associated with the resource based view of the firm .Barney (1991), developed a theory that proposes that sustainable competitive advantage is attained when the firm has a human capital that cannot be imitated or substituted by its rivals, for the employer investment in training and developing people is a means of attracting and retaining human capital as well as getting better returns from those investments.

Critical Review

Abdullah and Coskun (2007) conducted a research on quoted banks on Istanbul Stock Exchange (ISE) market to measure their intellectual capital performance, and also the effect of intellectual capital efficiency on financial performance. Data were taken for the period 1995-2004, and VAIC TM was used for measurement of intellectual capital and data envelopment analysis was used for testing the impact of intellectual capital on profitability. They found that the effect of intellectual capital on profitability on the banking sector on the ISE was approximately 61.3 percent. Their findings indicated that IC seems to be a more important factor than physical capital for banks, they also observed the effect of intellectual capital on investor's behavior

On relationship between intellectual capital and profitability, Kiong & Hooi (2009) conducted a survey on the financial institutions of Malaysia from the period of 1999 to 2007 to calculate the intellectual capital performance of finance companies and also its impact on financial performance of these companies. The findings of their study revealed that intellectual capital in the form of VAIC index and all its three components were positively and significantly associated with return on assets and profitability of companies in the financial sector

CONCEPTUAL FRAMEWORK

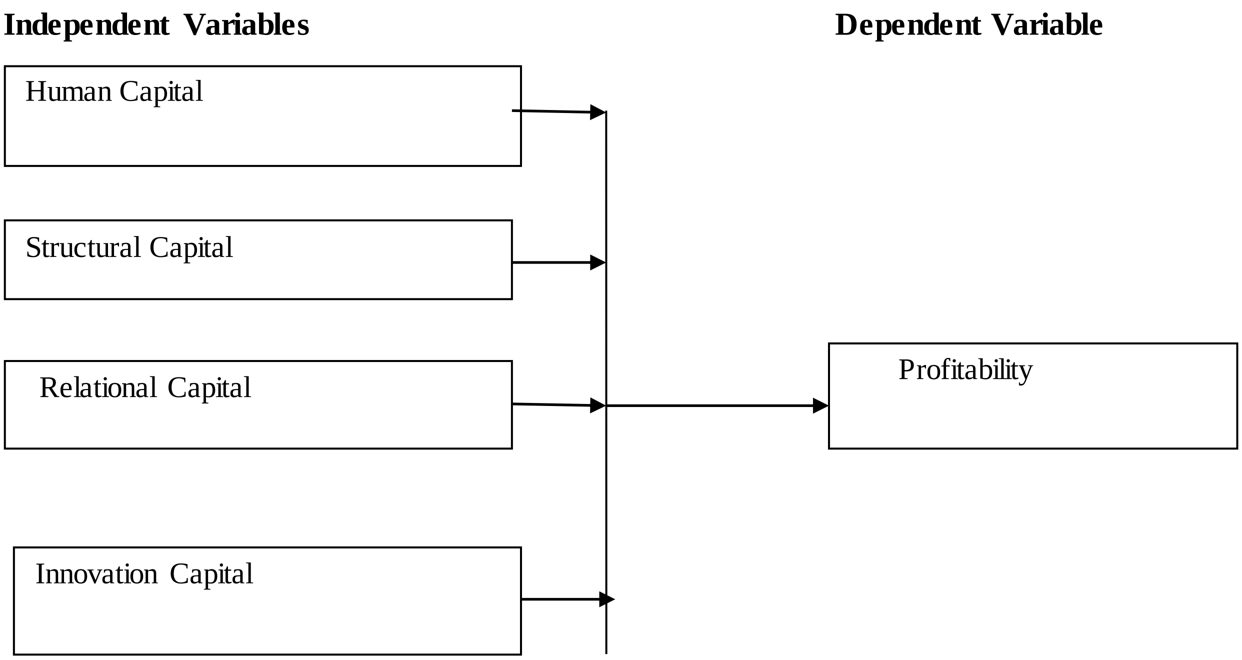

Figure 1. Conceptual Framework

RESEARCH METHODOLOGY

This study used descriptive research design to enable the study to test how independent variables (Human capital, Structural capital, Relationship capital and innovation capital) affect profitability, with specific emphasis on listed Kenyan commercial banks. Inferential statistics; regression analysis and correlation coefficients to test this relationship were applied. The target population was made of 10 Kenyan commercial banks that were listed in NSE by 2012. Published audited annual accounts for a period of 5 years; from 2009 to 2013 being secondary data was collected and analyzed through descriptive analysis including the mean, standard deviation, frequencies and percentages. Descriptive statistical tool MS Excel and SPSS were used to help the researcher describe relationship.

RESEARCH FINDINGS

Regression Analysis

Regression analysis was utilized to study the effects of intellectual capital on Kenyan commercial banks profitability and ascertain the associations and effects of human, structural, relational and innovation capital on profitability.

Table 1 Model Summary

D. Variable	Model	R	R-Square	Std. Error	Sig
ROA	1	.902[a]	0.813	0.457	0.002
ROE	2	.914[a]	0.835	0.526	0.001

a. Predictors: (Constant), Human, Structural, Innovation & Relational Capital

b. Dependent Variable: Profitability Significance at 5%

Table 1 illustrates the model summary results. The four independent variables can predict 90.2% and 91.4% of variations in the dependent variable (Profitability) Return on Assets (ROA) and Return on Equity (ROE) respectively. The coefficient of determination (R-Square) which explains the extent of variation in the dependent variable as explained by independent variables resulted to 0.813 and 0.835. The table above illustrates that the four independent variables that were studied explain 81.3% and 83.5% of variance in profitability as measured by ROA and ROE respectively. It implies that other factors not studied in this research contribute 18.7% and 16.5% of variance in the dependent variable measured in ROA and ROE.

Table 2. Regression Analysis of Independent Variable Impact on ROA

	Unstandardized Coefficients		Standardized Coefficients	
Independent Variable	**B**	**Std. Error**	**Beta**	**Sig.**
(Constant)	4.515	1.562		0.004
HCE	-0.108	0.438	-1.108	0.002
SCE	0.131	0.730	-1.108	0.002
RCE	-0.777	0.529	-0.712	0.000
ICE	0.331	0.098	0.741	0.001

a. Predictors: (Constant), Human, Structural, Innovation & Relational Capital
b. Dependent Variable: Profitability (ROA) Significance at 5%

The study applied regression analysis to determine the correlation between the independent variables and the dependent variable. From the Table 2 of model summary, the variables are statistically significant which implies that some independent variables have impact on profitability of listed Kenyan commercial banks. From the regression results, the equation is presented as follows;

$Y\ (ROA) = 4.515 + -0.108X_1 + 0.131X_2 +- 0.777X_3 + 0.331X_4$

X_1 is Human Capital, X_2 Structural Capital, X_3 Relational Capital and X_4 Innovation Capital.

According to the above ROA regression equation, taking all factors (Human Capital, Structural Capital, Relational Capital and Innovations Capital) constant at zero, overall profitability of listed banks will be 4.515. The results also shows that a unit increase of Human Capital will lead to a 0.108 decrease in profitability of listed banks; a unit increase of Structural Capital will lead to a 0.131 increase in profitability of listed banks; a unit increase in Relational Capital will lead to a 0.777 decrease in profitability of listed banks and a unit increase in Innovation Capital will lead to a 0.331 increase in profitability of listed banks.

Table 3 Regression Analysis of Independent Variable Impact on ROE

	Unstandardized Coefficients		Standardized Coefficients	
Independent Variable	**B**	**Std. Error**	**Beta**	**Sig.**
(Constant)	0.769	1.797		0.001
HCE	-0.385	0.503	-0.314	0.003
SCE	0.538	0.840	0.822	0.000
RCE	-0.846	0.609	-0.277	0.003
ICE	0.545	0.113	0.985	0.005

a. Predictors: (Constant), Human, Structural, Innovation & Relational Capital

b. Dependent Variable: Profitability (ROE) Significance at 5%

$Y\ (ROE) = 0.769 + -0.385X_1 + 0.538X_2 + -0.846X_3 + 0.545X_4$

According to the ROE equation, taking all factors (Human Capital, Structural Capital, Relational Capital and Innovations Capital) constant at zero, overall profitability of listed banks will be 0.769 and a unit increase of Human Capital will lead to a 0.385 decrease in profitability of listed banks; a unit increase Structural Capital will lead to a 0.538 increase in profitability of listed banks; a unit increase in Relational Capital will lead to a 0.846 decrease in profitability of listed banks s and a unit increase in Innovation Capital will lead to a 0.545 increase in profitability of listed banks.

DISCUSSION

On whether structural capital affects performance of listed commercial banks, the study established that there is a weak positive relationship of 0.131 with the dependent variable profitability (ROA). On the other hand Structural Capital has a significant positive relationship of 0.538 with the dependent variable performance (ROE).

With respect to effects of innovation capital on performance of listed commercial banks, the study established that there is a positive relationship of 0.331 with the dependent variable profitability (ROA). On the other hand Innovation Capital has a significant strong positive relationship of 0.545 with the dependent variable performance (ROE).

The study established that human capital is not significant at 5% level with a negative relationship of -0.108 with the dependent variable profitability (ROA). On the other hand the relationship between human capital and the dependent variable profitability (ROE) was significant at 5% with a unit change in the independent variable resulting to a -0.385 unit change in the dependent variable.

The result of the influence of relational Capital on the dependent variable indicated a negative relationship of -0.777 with the independent variable profitability (ROA). In addition the association between the independent variable and the dependent variable (ROE) was significant at 5% implying that a unit change in Relational Capital will result to a -0.846 change in the independent variable profitability (ROE).

RECOMMENDATIONS

The results of correlation tests show that structural capital under ROE was found to have highest significant effects, yielding to strongest influence on listed banks profitability and positive significant effects under ROA. Innovation capital followed with strong positive significant relationship with listed banks profitability under ROA and ROE measures of profitability, while both human and relational capital were found to have negative relationship with listed banks profitability under both ROA and ROE measures of profitability.

The researcher would recommend that Kenyan listed banks to continue with strong control over structural and innovation capital and more allocations for intellectual capital investment to be made to the two elements of intellectual capital for more growth in profitability. In addition, Kenyan listed banks need to be more focused in making managerial decisions in the area of its relational capital reforms as well as how efficiently the human assets are utilized to enhance higher positive human and relational capital contribution to the efficiency of generating profit for banks.

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