

EFFECT OF INTELLECTUAL CAPITAL EFFICIENCY ON FINANCIAL SUSTAINABILITY OF SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN NAIROBI COUNTY, KENYA

Harith Isack Sheikh

Master Student (Finance), Jomo Kenyatta University of Agriculture and Technology,
Kenya

Dr. Joshua Matanda Wepukhulu

Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

©2019

International Academic Journal of Economics and Finance (IAJEF) | ISSN 2518-2366

Received: 5th October 2019

Accepted: 11th October 2019

Full Length Research

Available Online at: http://www.iajournals.org/articles/iajef_v3_i4_16_31.pdf

Citation: Sheikh, H. I. & Wepukhulu, J. M. (2019). Effect of intellectual capital efficiency on financial sustainability of Savings and Credit Cooperative Societies in Nairobi County, Kenya. *International Academic Journal of Economics and Finance*, 3(4), 16-31

ABSTRACT

The increasing importance of intellectual capital as the main assets for organizations in the changing knowledge-based economy, where IC played an important role in the existence and continuity of those organizations, in addition to locating it between competitors. Many accounting problems related to identifying the methods of measuring the intellectual capital and presenting it at the financial statements arise. Measuring the intellectual capital is considered to be one of the main problems at the contemporary economy. The traditional accounting model focuses on the physical assets and ignores most of the intellectual capital assets. The objective of the study was to establish the effect of intellectual capital efficiency on financial sustainability of Savings and Credit Cooperative Societies in Nairobi County, Kenya. The specific objectives were to determine relational capital, financial innovativeness, structural capital, human capital and customer capital effect on financial sustainability of SACCOs Nairobi County. In this study, Explanatory cross-sectional design was used. The study's target population was 433 management staff working in Sacco societies licensed by SASRA in Kenya. Stratified random sampling technique was employed in this study generating a sample of 204 respondents from the targeted managers in Saccos in Kenya. The study collected the primary data from the Saccos management employees in Kenya. Primary data was used in this study where it was collected by use of Questionnaires. Statistical Package for Social Sciences (SPSS Version 25.0) was used to analyze the collected data. For the received questionnaires, referencing was done and questionnaire items coded to

enable the entry of the data. After cleaning of the data which includes sorting errors which occurred during entry of the data, descriptive statistics like frequencies, percentages, mean score as well as standard deviation was approximated for every quantitative variable and presentation done in tables. Conceptual content analysis was used to analyze the qualitative data from the open-ended questions and presented in paragraphs. The study found that customer satisfaction affects the financial sustainability of SACCOs in Nairobi County to a great extent. The study found that innovative employees are rewarded. The study also found that structural capital helps develop the organizational activity of the firm in effective and efficiently manner to facilitate small enterprise growth. The study also found that human capital is very crucial to Savings and Credit Cooperative Societies performance and the banks should increase investment in Human Capital. Further, the study found that there is longevity of relationships. The study concluded that relational capital strategy had the greatest effect on financial sustainability of SACCOs in Nairobi County, followed by structural capital strategy then customer capital, then financial innovativeness strategy while human capital strategy had the least effect on financial sustainability of SACCOs in Nairobi County. The study recommends that standards should be created for human resources identification and measurement to enhance valuation of human capital, ensure a higher degree of utility to stakeholders, uniformity in disclosures and will show a reliable comparison of human capital values. SACCOs should update their database promptly to enable utilization of structural capital to spur performance.

Key Words: *financial sustainability, innovativeness, structural capital, human SACCOS, relational capital, financial capital, customer capital*

INTRODUCTION

In a quickly spreading investigation field, intellectual capital have drawn a lot of attention from many scholars and experts. Examining and exploring this subject have brought out the intellectual capital significance in generation as well as sustenance of the firms competition edge (Mavridis, 2014). Generally Intellectual capital is abstracted as intellectual material; information, key method, period of involvement, intellectual property as well as association with customer which may be utilized in creation of resources. The significance of the efficient intellectual capital on success of a firm is the key to the economy based on knowledge that attributed to a quick spread of rapid industries intensified by knowledge as well as significance increase of creation as well as exploitation of information and evidence in every economy sectors (Takeuchi, 2009).

Though there is recognition of intellectual capital efficiency significance, there exists little mentioned on their assets disclosure in Savings and Credit Cooperative Societies. From early 1980s there are less models advanced in a bid of capturing and visualizing the intellectual capital efficiency of the firms though there exists no guidelines which makes the firms bear full responsibility of deciding the way of presenting the assets hidden. Hence, Intellectual capital includes; technology, information on customer, branding, status as well as culture of the company which are not valuable in competition situation of the company (Low & MacMillan, 2013). Also covered by Intellectual capital are non-physical sources are which are associated with competence of the staff, firms' competence, operation method as well as linkage amongst the shareholders. It's taken deliberated to be significant for the many firms to compete in spite of the industry. Though, this topic is particularly significant for companies of knowledge-intensity since a lot of them have tangible resources (Sveiby, 2011).

Nevertheless, regardless of an increase in the acknowledgement of the intellectual capital efficiency significance in the economy based on, there exist very few studies done in a bid to understand the connection amongst the intellectual capital efficiency on SACCOS in Nairobi County, Kenya financial sustainability. Most of the researches about the intellectual capital had their focus on developed countries especially those in North America as well as Europe. Up to now, less researchers emphasized on the how the performance of the banking sector firms in Kenya are affected by intellectual capital. This seems unexpected since a lot of researcher for instance, Yang and Lin (2009) argued that development of the intellectual capital is the secret value which isn't reproduced in financial statements of a firm though has the capability of contributing to the profitability of the firm as well as its competition edge.

Damanpour (2011) assessed the Malaysian commercial banks intellectual capital performance, by use of VAICTM advanced by Ante Pulic. Each and every bank as whole has moderately higher efficiency in human capital than efficiencies in structural and capital. Compare to foreign banks, Local financial institutions are commonly less efficient. The bank

rankings based on efficiency is significantly different from the one based on traditional measures of accounting. Kamath (2011) estimated and evaluated the VAICTM for assessing the Indian banking sector performance based on value between years 2000 to 2004. The research affirms the big discrepancies existing in the Indian banks performance in dissimilar sections and there as well an advancement in the whole success over the period of study. There exists evidence of biasedness favoring the success of foreign banks in comparison to the local banks.

Bontis et al. (2010) supported similar argument by exploring the intellectual capital accounting constituents which include human capital, Structural capital as well as Relational capital and its effect on south African service and non-service sector business performance and deduced that there is a positive influence of relational capital on service sector whereas Human capital positively impacts on performance of service sector.

In the context of Kenya, the important reforms initiatives carried out like undertaken credit reference bureaus operationalization, improvements of payments system, Microfinance Act operationalization as well as horizontal repos activation offers chances for improving the performance of the banking sector. The above reforms are founded on 3 significant Kenyan financial sector pillars as proposed in the Vision 2030 (Efficiency, Stability as well as accessibility). Hence, for Thus, for Vision 2030 of Kenya to be realized, the financial sustainability of the banking sector is an important component which is still the foundation of the targeted trajectory of economic growth. As per Kimenyi and Kibe (2014), Kenya is characterized with economy based on markets which is the main liberal economic system where the private sector are considered to be the most effective and dynamic in East Africa. Banking industry and business enterprises of Kenya are increasingly being faced by the same challenges as those in the developed world a factor that led to adoption of use of the International Financial Reporting Standards (IFRS).

STATEMENT OF THE PROBLEM

The increasing importance of intellectual capital as the main assets for organizations in the changing knowledge-based economy, where IC played an important role in the existence and continuity of those organizations, in addition to locating it between competitors (Soler & de Oro Celesino, 2011). Many accounting problems related to identifying the methods of measuring the intellectual capital and presenting it at the financial statements arise. Measuring the intellectual capital is considered to be one of the main problems at the contemporary economy. The traditional accounting model focus on the physical assets and ignore most of the intellectual capital assets (Wang & Chang 2011). Ahangar (2011) examined the intellectual capital effect on productivity, worker efficiency as well as growth of sales and revealed that intellectual capital efficiency has a significant influence on productivity and efficiency in the different sectors. The environment of business where the cooperatives operate have been very unstable. The competition from stable commercial banks, MFIs, new contestants, transfer services of money like Mpesa among other familiar financial institutions, improvement in technology as well as globalizing are among the difficulties which are influencing the performance and growth (Gweyi, 2014; Nkuru, 2015).

Governmental challenges as well as management inefficiency in giving motivation and facilities of support pose a threat to innovation that might result to production of new goods or services, as majority of the cooperatives can't meet the expense of establishing the research and growth as a result of inadequate organizational capacity growth (Wanjala, 2015; Okelo, Raburu & Sirma, 2015). These variations have very alarming strategic threat to current companies as well as good number don't have the ability of surviving the new events turn that is those, that are still enduring were forced to come with immediate strategies for countering the variations. The SASRA Press Release (2015) indicated that the general performance of the Saccos in Kenya has been on the decline with insufficient skills in technology is a significant threat. This confirms an earlier study by Kivuvo and Olweny (2014) found that the financial sustainability of the SACCO sector is extremely weak. In Kenya, 6,727 Co-operatives were listed and directly hired about 303,455 staff by December 2010 (GOK, 2014). Though, regardless of the noteworthy initiative by the government, a substantial 3457 (51%) of the Co-operatives were not working. This high rate of failure of Co-operatives remains a frustration to frustrate MDGs and objectives of vision 2030 to increase financial inclusion. Because of the invisibility and intangibility of knowledge, it's not straightforwardly apprehended by any of the outdated accounting measures or else, which companies dominant in their daily operations. Pulic (2010), portrayed companies value in the market as generated by capital adoption as well as intellectual capital that includes human and structural capital. Pulic suggested VAIC technique for information provision on the efficient creation of value of assets which are tangible and intangible within the firm. In place of intellectual capital efficiency valuation of a firm, the VAIC method mainly assesses the firms' efficiency using three inputs types: physical and financial capital, human and structural capital are considered respectively. The combination of the 3 measures is equal to the VAIC. A high VAIC proposes better control of utilization of value creation potential of the firm. Bramhandkar *et al* (2011) deduced that the association amongst the intellectual capital components and firm's performance is significant. However, this may not be the case with Savings and Credit Cooperative Societies, and there needs to be a study to establish the Kenyan banking industry situation. Goh and Ryan (2012) noted that although physically available capital is significant for operations banks, it's ultimately the intellectual capital which establishes the provision of quality services to the clients. It is therefore clear that the drivers of firm value in modern competitive environments lie in a firm's intellectual resources rather than its physical and financial capital. In support of this, using an analogy of fruits and roots, Cabriat and Landeiro (2011) observed that it is the roots of the tree that influence the size and beauty of the fruits; but not the stem and branches. Regardless of the fact various studies were done in various nations on the intellectual capital efficiency effect on Sacco's financial sustainability, there is yet to be a study to determine the Kenyan situation.

OBJECTIVES OF THE STUDY

This purpose of the study was to establish the effect of intellectual capital efficiency on financial sustainability of Savings and Credit Cooperative Societies in Nairobi County, Kenya.

RESEARCH HYPOTHESES

H₀₁: Relational capital is not significantly related to financial sustainability of SACCOs in Nairobi County.

H₀₂: Financial innovativeness is not significantly related to financial sustainability of SACCOs in Nairobi County.

H₀₃: Structural Capital is not significantly related to financial sustainability of SACCOs in Nairobi County.

H₀₄: Human capital/relational capital is not significantly related to financial sustainability of SACCOs in Nairobi County.

H₀₅: Customer capital is not significantly related to financial sustainability of SACCOs in Nairobi County.

THEORETICAL REVIEW

Modern Innovation Theory

This theory views the creation of knowledge in a additional considerable technique. Initially, innovation is based on both discovery and learning. Need of knowledge doesn't essentially indicate new technical or scientific principles discovery and may similarly be founded on the activities that recombine or familiarise existing knowledge forms; as a result this indicates that activities like design and trial production may be generating activities for knowledge- (Afuah, 2013).

Modern innovation analysis second key view is on the firm's exterior environment. There is an interaction between Banks and other institutions in many ways; including intermediate purchase or capital goods exemplifying knowledge. Such new equipment installation and operation is as well creation of knowledge as well as license purchase utilized for knowledge protection. As postulated by this theory, the Sacco's needs to innovate and come up with new financial goods so as to attain competitive edge. Saccos hence utilized this theory in gaining the competitive edge.

Resource Based Theory

RBV is an method to attain competitive edge which was introduced in in 1980s and 1990s. As per the theory, a firm is required to attain the comparable sustainable advantage through control of assets which are tangible and intangible (Andriessen, 2014). It was advocated by Firer and Stainbank (2013) that the more suitable way of conceptualizing a performance of a company value addition.

In the firms operations, Intangible resources have often been there. The first researchers who respectively made use of the intangible and intellectual capital phrases were Diksi (1896) and Galbrais (1969). Recently many activities are conducted on the subject and significance of the information consideration linked to intangibilities greatly affects growth. This scientific

difference has led to research development procedure which is slow and up to now, no presented integrated definition in this field (Andriessen, 2014; Jourjsen, 2016). Sacco's performance as indicated in this theory is affected by available resources and how efficient they are utilized in the firm. Structural capital like charts of the firm, plans as well as procedures may need maintained and developed resources. Hence, Saccos having resources have the likelihood of gaining competitive edge.

Intellectual Capital Theory

This theory was developed in past 10 years ago intellectual capital theory was developed in the past decade responding to exposure of the information and knowledge significance (Harris, 2010). On influence, intellectual capital efficiency have assisted in backing the financial institutions performance in a bid to satisfy he meet up with the high developed economies status which is reason behind the Cameroon authorities taking the test of becoming economized by 2035. Intellectual capital efficiency assists banks in preparation to conger difficulties in future as they compete with other firms.

It is clear that intellectual capital have various basis of its principles. Critical view of the intellectual capital with a manger literature review comprehension it is likely to note that other intellectual capital efficiency promotion is influenced by other resources. The intellectual capital theory development was led by views of relevant researchers like Sveiby (2011), Kaplan and Norton (2014) and Edvinson and Malone (2011). Saccos depend heavily on knowledgeable resources in product development and processes terms. Hence, any financial institutions seeks to attain a competition edge over their rivals needs product and processes conscious and how best they will draw new as well as retaining current clients. This allowed the firms to attain a competitive edge.

Knowledge Based Theory

This theory deliberates on knowledge as the main strategic firms' asset. The theory argues that since the resources based on knowledge are basically impossible to liken and informally complex, varied bases of knowledge and capabilities among firms are the main factors of competitive advantage which is sustainable and superior performance of the company (Barney 1991). This knowledge is attached and dragged via many objects which includes culture of the firm as well as brand name, systems and the staff (Wernerfelt, 1984).

However the firm's resource-based view identifies significant knowledge role in the companies which makes them more competitive than other firms. Definitely, knowledge is treated by Resource based view as a generic resource, instead of possession of exceptional features. Hence it doesn't differentiate the capabilities types based on knowledge. There is a key role played by the Information technologies in the firm's knowledge-based view where the systems of information may be utilized in synthesizing, enhancing and expediting management of knowledge (Leidner, 2010). This theory will assist in this study to elaborate the intellectual capital in information systems terms as well as their contribution to the success of the firm. Because of high regulation, association banking is becoming more important to financial institutions and is the suitable competition advantage source. Saccos

with a desire to attain competition edge are thus required to spend on knowledge about the existing industry regulations and whole economy. Because the association capital is the embedded knowledge in the linkages with any shareholder which affects the life of the firms, Saccos need to take care at the interest of stakeholders. It is defended by the literature that link with the shareholders is an essential condition to build, maintain and renew resources since via exterior associations firms have the ability to access key as well as corresponding resources that allow the firms to attain competitive advantage.

Human Capital Theory

This theory was developed by Conner (1991) with basis of macroeconomic development theory. It was postulated by Atuahene-Gima (2010) there diverse types of capitals which include computer training course as well as that possesses great effect on success of the firm. And actually, training on the punctuality and honesty virtues are part of capital. These indeed enhance the health and increase salaries in the firm. Subsequently, it's fully in observance of concept of capital as conventionally distinct to note that education expenses are human capital investments. These are business investments whose returns are computable and not only costs.

Human capital is a joint capability of humans in a firm to come up with solutions to business problems as well as exploitation of their intellectual Property (Chantapong, 2015). This theory will assist in elaboration of the necessity of establishing the influencing of human capital on financial sustainability of Saccos in Nairobi County, Kenya. Co-operatives depend on the human capital have the ability of delivering exceptional services to the firms' clients which allows the financial institutions to compete effectively with their rivals. This theory postulated that human capital may influence greatly the performance of the firm and hence human capital of high efficiency results competition advantage of greater extent.

RESEARCH METHODOLOGY

Explanatory cross-sectional design was adopted in this study. This design establishes the causal linkages amongst the variables. The explanatory cross-sectional design was applied in this study because its aimed at establishing the kind, extent as well as the association amongst variables direction. The study's target population was 433 management staff working in Sacco societies licensed by SASRA in Kenya and customers. Stratified random sampling technique was employed in this study generating a sample of 204 respondents from the targeted managers in Saccos in Kenya. The study collected the primary data from the Saccos management employees in Kenya. To conserve money and time and make analysis easy, closed ended questions were used since they are in immediate usable form whereas to encourage the respondents to give more information without restriction on the subject under study, the researcher made use of open-ended questions (Sproul, 2011). Primary data was used in this study where it was collected by use of Questionnaires. The questionnaires were individually administered to the respondents by the researcher. Statistical Package for Social Sciences (SPSS Version 25.0) was used to analyze the collected data. After cleaning of the data which included sorting errors which occurred during entry of the data, descriptive

statistics like frequencies, percentages, mean score as well as standard deviation were approximated for every quantitative variable and presentation done in tables. Conceptual content analysis was used to analyze the qualitative data from the open-ended questions and presented in paragraphs. In bringing out the data quantitative meaning, linkages amongst the variables was established by use inferential statistics like correlations and regression analysis (Swift & Piff, 2010). The regression model was as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where: Y = SACCO Financial Sustainability; β_0 = Constant Term; β_1 , β_2 and β_3 , = Beta coefficients; X_1 = Relational capital; X_2 = Financial innovativeness; X_3 = Structural capital; X_4 = Human capital; X_5 = Customer capital; ε = Error term

The study used One-Way ANOVA in testing for the model fitness. The ANOVA's basic principle is testing the means differences within populations by exploring the variation amongst the samples, relative to the variation degree amongst the samples (Kothari, 2012). To test the null hypothesis one-way ANOVA was employed. The Levine's homogeneity of variance test with p value < 0.05 was interpreted to mean the ANOVA test results are significant and the study rejected the null hypothesis if computed $F > F$ critical at 95% confidence interval (Freedman, 2010). Fischer distribution test called F-test was applied. It refers to the ratio between the model mean square divided by the error mean square. F-test was used to test the significance of the overall model at a 5 percent confidence level. The value for the F-statistic was applied in determining the robustness of the model.

RESEARCH FINDINGS

The researcher conducted both the Pearson correlation analysis and the regression analysis. The regression analysis was used to establish the relations between the independent and dependent variables while correlation was conducted to assess the degrees of association between the variables. The findings were as shown in the subsections that follow.

Pearson Moment Correlation Results

This was conducted to assess the degrees of association between the variables. A Pearson moment correlation is a number between -1 and +1 that measures the degree of association between two variables. A positive value for the correlation implies a positive association while a negative value for the correlation implies a negative or inverse association. Table 1 shows the results for the Pearson moment correlation. The analysis of correlation results between the financial sustainability of SACCOs in Nairobi County and relational capital shows a positive coefficient 0.921, with p-value of 0.020. It indicates that the result is significant at $\alpha = 5\%$ and that if the relational capital increases it will have a positive impact on the financial sustainability of SACCOs. The correlation results between financial innovativeness and financial sustainability of SACCOs in Nairobi County also indicates the same type of result where the correlation coefficient is 0.664 and a p-value of 0.027 which significant at $\alpha = 5\%$.

Table 1: Correlation Coefficients

		Financial sustainability of SACCOs	Relational capital	Financial innovativeness	Structural capital	Human capital	Customer capital
Financial sustainability of SACCOs	Pearson Correlation	1					
	Sig. (2-tailed)	.					
Relational capital	Pearson Correlation	.921	1				
	Sig. (2-tailed)	.020	.				
Financial innovativeness	Pearson Correlation	.664	.223	1			
	Sig. (2-tailed)	.027	.006	.			
Structural capital	Pearson Correlation	.718	.243	.497	1		
	Sig. (2-tailed)	.025	.002	.000	.		
Human capital	Pearson Correlation	.629	.333	.420	.531	1	
	Sig. (2-tailed)	.017	.000	.000	.000	.	
Customer capital	Pearson Correlation	.702	.234	.374	.211	.106	1
	Sig. (2-tailed)	.021	.000	.000	.000	.000	.000

The results also show that there is a positive association between structural capital and financial sustainability of SACCOs in Nairobi County where the correlation coefficient is 0.718, with a p-value of 0.025. Further, the result shows that there is a positive association between human capital and financial sustainability of SACCOs in Nairobi County where the correlation coefficient is 0.629, with a p-value of 0.017. Further, the result shows that there is a positive association between customer capital and financial sustainability of SACCOs in Nairobi County where the correlation coefficient is 0.702, with a p-value of 0.021. Nevertheless, the positive relationship indicates that when the practice of the afore-mentioned factors is in place the levels of financial sustainability of SACCOs in Nairobi County increases.

Overall, relational capital had the greatest effect on financial sustainability of SACCOs in Nairobi County, followed by structural capital then customer capital, then financial innovativeness while human capital had the least effect on financial sustainability of SACCOs in Nairobi County. All the variables were significant since p-values were less than 0.05.

Regression Analysis

This was conducted to determine the relationship between relational capital, financial innovativeness, structural capital, human capital and customer capital as the independent

variables against the dependent variable financial sustainability of SACCOs. The results were as presented in Table 2, Table 3 and Table 4.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.846	0.716	0.706	1.268

From the study results, Table 2 is a model fit which establish how fit the model equation fits the data. The adjusted R² was used to establish the predictive power of the study model and it was found to be 0.706 implying that 70.6% of the variations in financial sustainability of SACCOs in Nairobi County are explained by changes in relational capital, financial innovativeness, structural capital, human capital and customer capital.

Table 3: Analysis of Variance (ANOVA)

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	608.032	5	121.606	73.653	.000
1 Residual	241.056	146	1.651		
Total	849.088	151			

The probability value of 0.000 indicates that the regression relationship was highly significant in predicting how the relational capital, financial innovativeness, structural capital, human capital and customer capital affected financial sustainability of SACCOs in Nairobi County. The F calculated at 5 per cent level of significance was 73.653. Since F calculated is greater than the F-critical (value = 2.2761) and p-value was less than 0.05, the overall model was significant.

Table 4: Regression Coefficients

	Un standardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
(Constant)	0.864	0.412		2.097	.0374
Relational capital	0.805	0.393	0.721	2.048	.0420
Financial innovativeness	0.717	0.244	0.664	2.939	.0375
Structural capital	0.775	0.339	0.718	2.286	.0235
Human capital	0.679	0.278	0.629	2.442	.0156
Customer capital	0.771	0.312	0.672	2.471	.0144

The regression equation obtained from this outcome was: -

$$Y = 0.864 + 0.805X_1 + 0.717X_2 + 0.775X_3 + 0.679X_4 + 0.771X_5$$

As per the study results, it was revealed that if all independent variables were held constant at zero, then the financial sustainability of SACCOs in Nairobi County will be 0.864. From the findings, the study revealed that a unit increase in relational capital would lead to 0.805 increases in financial sustainability of SACCOs in Nairobi County. This variable was significant since p=0.0420 is less than 0.05 and the null hypothesis that relational capital is

not significantly related to financial sustainability of SACCOs in Nairobi County was rejected. This corresponds to the findings by Gibbert et al. (2010) that the link with the shareholders is an essential condition to build, maintain and renew resources since via exterior associations firms have the ability to access key as well as corresponding resources that allow the firms to attain competitive advantage.

The study further revealed that a unit change in financial innovativeness would lead to 0.717 units change in financial sustainability of SACCOs in Nairobi County. The variable was significant since $p\text{-value}=0.0375 < 0.05$ and the null hypothesis that financial innovativeness is not significantly related to financial sustainability of SACCOs in Nairobi County was rejected. This is in consonance with Hurley and Hult (2018) who noted that financial innovation, like any other behavior of the economy commonly comes from material gains anticipation of various analysis of the cost-benefit.

Moreover, the study showed that if all other variables are held constant, a unit change in the score of structural capital would lead to a 0.775 change in financial sustainability of SACCOs in Nairobi County. This variable was significant since $p=0.0235$ was less than 0.05 and the null hypothesis that structural capital is not significantly related to financial sustainability of SACCOs in Nairobi County was rejected. The findings relate with Bontis et al. (2010) who state that a Savings and Credit Cooperative Societies which has structural capital that is strong has culture that is very supportive which allows their staff to attempt new events, to learn and practice them which results to banks being more competitive.

The study revealed that a unit change in human capital would change the financial sustainability of SACCOs in Nairobi County by 0.679. This variable was significant since $p\text{-value}=0.0156$ was less than 0.05 and the null hypothesis that human capital is not significantly related to financial sustainability of SACCOs in Nairobi County was rejected. This is in accordance with Bueno (2018) who notes that firms need to both carry out staff training in a bid of fostering their expert skills by encouraging them to think analytically and as well inform them the significance of training.

Finally, a unit change in customer capital would change the financial sustainability of SACCOs in Nairobi County by 0.771. This variable was significant since $p\text{-value}=0.0144$ was less than 0.05 and the null hypothesis that customer capital is not significantly related to financial sustainability of SACCOs in Nairobi County was rejected. In relation to the findings, Standifird (2010) stated that the reputation of the firm transmits information different kinds, reduces the efforts of the clients in gathering the data and making easy to contract as well as acting as some kind of assurance for the products of the company or transaction services subject.

Overall, relational capital strategy had the greatest effect on financial sustainability of SACCOs in Nairobi County, followed by structural capital strategy then customer capital, then financial innovativeness strategy while human capital strategy had the least effect on financial sustainability of SACCOs in Nairobi County. All the variables were significant since $p\text{-values}$ were less than 0.05.

CONCLUSION

The study concluded that there was a statistically significant relationship between relational capital and financial sustainability of SACCOs in Nairobi County. The study concluded that relational capital is of central importance to an organization's worth and includes the value of the relationships a business maintains with its customers and suppliers but often poorly booked in corporate accounts, because of accounting rules therefore organizations should understand the value of their social capital and utilize them for the improvement of firm's performance.

The study also concluded that there is a positive and significant relationship between financial innovativeness and financial sustainability of SACCOs in Nairobi County. The study concluded that financial innovation tries to reduce the risks as SACCOs increase their outcomes.

From the study findings, it was concluded that there is a positive and significant relationship between structural capital and financial sustainability of SACCOs in Nairobi County. The study concluded that structural capital includes the supportive non-physical infrastructure, processes and databases of the organization that enable human capital to function.

The study also concluded that there is a significant influence of human capital on financial sustainability of SACCOs in Nairobi County. The study concluded that human capital includes an organization's combined human capability for solving business problems and exploiting its Intellectual Property.

The study also concluded that customer capital influences financial sustainability of SACCOs in Nairobi County significantly. The study concluded that marketing channels of knowledge and clients linkages are the major sources of customer capital theme and that customer capital essence is attachment of knowledge in external relationships to the company.

RECOMMENDATIONS

The result of this study provide that among the intellectual capital components the intangibles, Human capital (HC) and structural capital (SC), more important in enhancing the firm financial performance than tangible and physical assets capital employed efficiency, this would alert the directors and managers of SACCOs emphasize on IC variables through establishment of separate department. So that clear and proper records and protection of significant components of IC could be kept by SACCOs. This will help them to make their decision would be efficient.

Human capital is significant factor for financial sustainability. Therefore financial institutions should encourage the inclusion of human capital accounting in the financial reporting of SACCOs. Thus, standards should be created for human resources identification and measurement. This will enhance valuation of human capital, ensure a higher degree of utility to stakeholders, uniformity in disclosures and will show a reliable comparison of human capital values.

SACCOs should update their database promptly to enable utilization of structural capital to spur performance. Updating their data bases promptly will ensure that their information is often secured and it does not get lost or misplaced in their processes. Therefore this information will serve as sources of structural capital that the organization can utilize to spur the performance of the SACCOs.

SACCOs should strive to ensure that their employees are considered the best in the industry as a way of utilizing human capital and hence spurring firm's performance. When the reputation of the employees of an organization is widely recognized in the industry as the best there is in that industry; clients will be drawn to the organization since they are assured that they are going to get the best service in the industry and therefore this will help to improve the performance of the SACCOs.

SACCOs should take part in corporate social responsibility activities as a way of relational capital initiative which will create goodwill and thereby spurring the SACCOs performance. When a SACCOs takes part in corporate social responsibility; they show the community around them that they are not only interested in securing their profits but they are able to give back to the community and therefore appeal to the communities who are then drawn as clients to the organization increasing and spurring the profitability of the SACCOs.

REFERENCES

- Afuah, A. (2013). *Innovation management: strategies, implementation and profits*. Oxford University Press.
- Ahangar, R. G. (2011). The relationship between intellectual capital and financial performance: An empirical investigation in an Iranian company. *African journal of business management*, 5(1), 88-95.
- Leidner, D. E. (2010). Globalization, culture, and information: Towards global knowledge transparency. *The Journal of Strategic Information Systems*, 19(2), 69-77.
- Atuahene-Gima, K. (2010). Market Orientation and Innovation. *Journal of Business Research*, 35(2), 93-103.
- Bontis, N., Keow, W.C. & Richardson, S. (2010). Intellectual capital and business performance in Malaysian industries, *Journal of Intellectual Capital*, 1(1), 85-100.
- Bramhandkar, A., Erickson, S. & Applebee, I. (2011). Intellectual capital and organizational performance: An empirical study of the pharmaceutical industry. In *Proceedings of the 8th European Conference on Knowledge Management*. 147. Academic Conferences Limited.
- Bueno, E. (2018), *Medición Del Capital Intelectual: Modelo Intellect*. Instituto Universitario Euro forum Escorial, Madrid.
- Cabriat, J. & Landeiro, Y (2011). Intellectual capital and financial performance in Ugandas microfinance institutions. *African Journal of Accounting, Economics, Finance and Banking Research*, 6(6), 17-31.
- Chantapong, S. (2015). Comparative study of domestic and foreign bank performance in Thailand: The regression analysis. *Economic Change and Restructuring*, 38, 63-83.

- Conner, K. R. (1991). A historical comparison of resource-based theory and five schools of thought within industrial organization economics: do we have a new theory of the firm?. *Journal of management*, 17(1), 121-154.
- Damanpour, F. (2011). Organizational complexity and innovation: developing and testing multiple contingency models. *Management science*, 42(5), 693-716.
- Eriksson, P., & Malone, A. (2011). *Qualitative Methods in Business Research*. (1st Ed.). London: SAGE Publications Ltd.
- Firer, S. & Williams, M. (2013). Intellectual capital and traditional measures of corporate, 4 (12), 114.
- Gibbert, M., Leibold, M. & Voelpel, S. (2010). Rejuvenating corporate intellectual capital by co-opting customer competence, *Journal on Intellectual Capital*, 2(2), 109-126.
- Goh, P.C. & Ryan, M. (2012). Intellectual capital performance of commercial banks in Malaysia, *Journal of Intellectual Capital*, 6(3), 385-96.
- GOK (2014). *World Report 2014*. Government of Kenya.
- Gweyi, M.O. (2014). Effects of financial Leverage on Financial Performance of Deposit Taking SACCOs in Kenya. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(2), 180-188
- Harris, F. (2010). Is intellectual capital performance and disclosure practices related? *Journal of Intellectual capital*, 2(3), 192-203.
- Hurley, R. F. & Hult, G. T. M. (2018). Innovation, market orientation, and organizational learning: an integration and empirical examination. *The Journal of Marketing*, 42-54.
- Jourjsen, U. (2016). *Managing intellectual capital: organizational, strategic, and policy dimensions: organizational, strategic, and policy dimensions*. Oxford University Press.
- Kamath, G.B. (2011). Intellectual capital and corporate performance in Indian pharmaceutical industry. *Journal of Intellectual Capital*, 9(4), 684-704.
- Kaplan, R. S. & Norton, D. P. (2014). *Using the Balanced Scorecard as a Strategic Management System*.
- Kimenyi, M. S. & Kibe, J. (2014). Africa's Powerhouse. *The Brookings Institution*.
- Kivuvo, R. M. & Olweny, T. (2014). Financial Performance Analysis of Kenya's SACCO Sector Using the Altman Z Score Model of Corporate Bankruptcy. *International Journal of Business and Social Science*, 9(1), 34
- Low, M. B. & MacMillan, I. C. (2013). Entrepreneurship: Past research and future challenges. *Journal of management*, 14(2), 139-161.
- Mavridis, D.G. (2014). The intellectual capital performance of the Japanese banking sector. *Journal of IntellectualCapital*, 5(1), 92-115.
- Nkuru, F.G. (2015). Factors Affecting Growth of Saccos Within the Agricultural Sector in Kenya.: A case of Meru Farmers SACCOs. *Global Journal of Commerce and Management Perspective*, 4(1), 34-45.
- Okelo, N. B., Raburu, G. & Sirma, J. (2015). Security Breach incidences of SACCOs with or without Security Policy with a Broad Scope in Kenya. *International Journal of Research and Development Organisation*, 2(3) 3-19
- Pulic, A. (2010). VAIC - An Accounting Tool for IC Management. *International Journal of Technology Management*, 20(5).
- SASRA Press Release (2015). *Benefits of a regulated SACCO sector*. SASRA Press Release (2011), *Benefits of a regulated SACCO sector*.
- Soler, L. E. V., & de Oro Celestino, D. J. C. (2011). Evaluating the scope of IC in firms' value. *Journal of intellectual capital*.

- Sproul, R. C. (2011). *Essential truths of the Christian faith*. Tyndale House Publishers, Inc..
- Standifird, S. S. (2010). *Establishing reputation on the Warsaw Stock Exchange: international brokers as legitimating agents*. Chicago, IL: Academy of Management Proceedings.
- Sveiby, K. (2011) *The New Organizational Wealth: Managing and Measuring Knowledge-Based Assets*, Berrett Koehler, San Francisco.
- Takeuchi, H. (2009). The contradictions that drive Toyota's success. *Strategic direction*.
- Wang, W. Y. & Chang, C. (2011). Intellectual capital and performance in causal models: Evidence from the information technology industry in Taiwan. *Journal of intellectual capital*, 6(2), 222-236.
- Wanjala, S. N. (2015). Effects of cash Management Practices on the growth of Matatu SACCO in Kimilili sub - county, Bungoma County, Kenya. *International Journal of Business and Management* 3(1), 201
- Wernerfelt, B. (1984). A resource- based view of the firm. *Strategic management journal*, 5(2), 171-180.
- Yang, C. C. & Lin, C. Y. Y. (2009). Does intellectual capital mediate the relationship between HRM and organizational performance? Perspective of a healthcare industry in Taiwan. *The International Journal of Human Resource Management*, 20(9), 1965-1984.