# EFFECT OF INTELLECTUAL CAPITAL ON FINANCIAL SUSTAINABILITY OF SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN KENYA

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER DEGREE IN BUSINESS ADMINISTRATION OF KENYA METHODIST UNIVERSITY

# **DECLARATION**

This research thesis is my original work ar	nd has not been submitted for examination in this
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# **DEDICATION**

I would like to dedicate this research thesis to my Wife Nima Noor, my Children Amal Abdirizak, Maher Abdirizak, Maida Abdirizak and for their endless support during my studies.

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#### **ABSTRACT**

Today SACCOs are operating within dynamic business environment. There is an increasing importance of intellectual capital as a vital resource in a changing knowledge-based environment where this resource has turned out to be a major contributor to the existence and sustainability of firms, in addition to providing the firms with a competitive edge. The research sought to assess the intellectual capital effect on financial sustainability of Kenyan SACCOs. The theories used in this research were the stakeholder theory, legitimacy theory, resource-based theory, human capital theory and constraint induced financial innovation theory. A descriptive research design helped in establishing the findings of the study. The study target population was the management staff in the SACCOs in Kenya. Nassiuma (2000) formula helped choose the sample that was made up of 315 participants from the targeted population of 1737 participants. The selection was done with the help of stratified proportionate random sampling method. The raw data was sought from the Kenyan SACCOs management staff. In this study, the researcher used a drop and pick technique to drop the research tool top the respondents and later picked the questionnaire giving the respondents ample time to answer the questions. The received questionnaires were reviewed and given special referencing numbers and the data coded. The data was also cleaned where errors were corrected. Descriptive statistics measures such as standard deviation, average, frequencies and percentages were used on the quantitative data while the qualitative data was analysed using inferential statistics that included regression and correlation analysis. Finally, tables and graphs were used to display the findings. Relational capital was found to affect financial sustainability of Kenyan SACCOs very greatly. The study established that it was to a great extent that integrated communication systems and operations automation affect financial sustainability of Kenyan SACCOs. The research also found that it was to a great extent that employee's competence and qualifications impact financial sustainability of Kenyan SACCOs. The study found that customer capital influences financial sustainability of Kenyan SACCOs greatly. The study concluded that customer capital had the greatest impact on financial sustainability of SACCOs in Kenya, followed by relational capital, then human capital while structural capital had the least effect on financial sustainability of SACCOs in Kenya. The recommendation made was that there was need for managers to learn and understand their customer's priorities, tastes, backgrounds and needs in a bid to give them the best service that would lead to a fulfilling business relationship that would result to the SACCOs financial sustainability. Also, SACCOs should take part in corporate social responsibility activities as a way of relational capital initiative which will create goodwill and thereby spurring the firm's performance.

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#### ABBREVIATIONS AND ACRONYMS

**ASE** Athens Stock Exchange

**CBK** Central Bank of Kenya

**CEE** Capital Employed Efficiency

**HCE** Human capital

IC Intellectual Capital

ICA International Cooperative Alliance

**IFRS** International Financial Reporting Standards

**KBRR** Kenya Banks Reference Rate

KM Knowledge Management

MPC Monetary Policy Committee

**NSE** Nairobi Securities Exchange

**RC** Relational Capital

**SADC** South African Development Community

**SMEs** Small and Medium Enterprises

**SPSS** Statistical Package for Social Sciences

**USA** United States of America

VA Value Added

**VAIC** Value Added Intellectual Coefficient

#### **CHAPTER ONE**

#### INTRODUCTION

#### 1.1 Background of the Study

Intellectual capital has been scholars' area of study both in the academics and business environments. Intellectual capital is often regarded as knowledge; intellectual property; technique; experience; data; intellectual material and the customer relations that could be put to good use and be a source of wealth for the firm (Huff, 2015). IC is a vital source of sustainable competitiveness and corporate value for enterprises. The need for IC has continued to grow especially in firms that want to be successful and also because today organizations are operating in knowledge- based environments that has seen the expansion of knowledge-intensive firms and also characterized by the increased need to create and use knowledge and data in all industries (Mavridis, 2014).

There has been notable recognition of the role played by IC in many sectors. Unfortunately, this cannot be said to be happening in the SACCOs. Although there are problems associated with the IC information by firms, there are also reasons why some organizations do not mind letting others know about their IC resources (Abeysekera & Guthrie, 2014). One of these reasons is to reduce the information asymmetry between a firm and the external users of its data. From the late 1980s there have been models developed to determine the efficiency of intellectual capital. However, there is no standard measure to determine efficiency of IUC which means the firms are left to come up with their own ways to present and measure the efficiency of IC. The assets included as part of intellectual capital are firm culture, reputation, the brand name, customer data and technology which are valuable assets that can be used by a firm to gain a competitive advantage against its rivals (Low & MacMillan, 2013). IC is also inclusive of the non-physical assets of a firm such as the relationship between the firm and its stakeholders, operational strategies, firm capabilities and employee's skills (Lonnavist,

2014). The resource is seen as a vital source of competitiveness for many firms regardless of the sector. Nonetheless, the knowledge base firms will find the topic of great help since most of their resources are not tangible (Laine, 2011).

Another good reason for IC is that it helps improve the relevance of financial reports. Firms that fail to disclose information of their IC may see their financial positions and competitiveness deteriorate in the long run. Although there is agreement across the business circles that intellectual capital is vital for the improved performance of firms, most of the research done in this topic is based on western businesses, especially those found in Europe and North America. There isn't much research on the impact IC has on the Kenyan banking organizations. This can be termed as a surprise considering the effort made by scholars on highlighting this topic such as the findings by Yang and Lin (2009) that IC is often not included in firms financial statements although it has a great potential to positively affect a firms profitability and sustainable competitive advantage (Lonnavist, 2014).

In today's business environments that are global and knowledge-based in nature, there is need for financial organizations to develop, utilize and monitor their IC assets to improve their productivity and competitiveness (Husin et al., 2013). Globally, Japan and the US have been noted to be the nations that have made great advancements when it comes to the use of IC by banking institutions. Intellectual capital can be defined in different ways. It is often said to be knowledge, experience, intellectual property and information that can be used by the owners to create wealth. This definition provides that there is a relationship between IC and the value of the firm. In all the different definitions of IC there are three elements that do not lack including valuable knowledge, intangibility and the impact of collective activities. The assumption made is that the firm competitive advantage is pegged on its efficiency to build, share, leverage and use its knowledge (Mavridis, 2014).

There has been a lot of debate in academic circles regarding IC. However, very few studies have looked into the IC. In the late 1980s, there were theories and models that were developed aimed at examining the intellectual capitals existing in various organizations. Unfortunately, there was no one standard provided that could be used to present such intangible assets. The job was left to the organizations to determine how their IC was to be captured. Some of the assets that can be said to make up a firm's IC include the firm culture, reputation, brand, customer data and technology. These assets help the organization to have an advantage compared to their competitors (Khan & Khan, 2010). IC is also inclusive of valuable intangible assets that are related to the organization and members of staff capabilities, the relationship the firm has with its clients and the operating techniques used by the organization. IC is a vital resource that many firms value due to the competitive edge it gives them in the industry. Businesses in developing countries perform IC accounting to enhance their performance (Sharabati et al., 2010).

In Kenya, the financial institutions are ideal forms for research on the IC topic more because most of the bank employees are knowledge-based workers. The Kenyan financial institutions include commercial banks, fund managers, insurance firms, non-bank financial organizations, stick brokerage organizations and microfinance institutions (Noe et al., 2017). The banking sector is the second largest sector in the financial industry with an assets base of more than 1.3 trillion, since Kenya capital market is still developing the banking institutions are the mediators between the savers and investors in the country. The Kenyan economy is market-based ands liberal in nature and the country's private sector is said to be the most dynamic and vibrant in the East Africa region. The challenges facing the Kenyan banking sector are similar to the ones faced in financial institutions in developed world which resulted to the adoption of the International Financial Reporting Standards (IFRS) in the country (Kimenyi & Kibe, 2014).

Human capital is an intangible resource made up of the organization's teams and employees and the talent, experience, skills and knowledge they process and which they use to help the firm succeed (Huff, 2015). Structural capital (SC) helps the organization execute its strategies and it includes processes, databases, knowledge applications, information systems among other infrastructures. Relational capital (RC) is made up of the knowledge within the firm network including the external connections of the firm with its customers and suppliers which results to goodwill and loyalty. As noted by Roos et al. (2017) study that quantified the intellectual growth in a firm, customer capital depicts the relationship between customers and the firm.

# 1.1.1 Financial Sustainability

One of the vital areas that determine performance of Micro Finance firms is financial sustainability. Sustainability in this case is said to be the capacity of the company to fulfill its financial obligations and other expenditure relevant to the company and also to make profit. Sustainability indicates that a SACCO or any other firm can run successfully without the need for aid or donations (Noe et al., 2017). For micro-financing firms, sustainability means that the firm can operate and help the poor as per its goals without the need for aid from donors. However, for SACCOs to be sustainable they need to come up with ways of financing their operations void of funding from donors (Khrawish, 2011).

A firm financing strategy is a plan that allows it to acquire, use and monitor its financial resources in a bid to spur its growth. SACCOs need financing from other sources other than the traditional sources of their funding. Bank profitability can be quantified in various ways. According to Ongore and Kusa (2013), there are four major ratios used to quantify the profitability of SACCOs including the return on equity ratio. This ratio compares the banks' earnings to the invested shareholders capital. When the ROE is high this is a good sign for the

financial institution as it indicates that it can acquire cash from its internal sources. It also shows that the bank is using its shareholders capital effectively. The return on asset ratio is a profitability ratio that provides how much profit a company is able to generate from its assets. It quantifies the capability of the institution to obtain income from the use of its assets (Branco & Rodrigues, 2016). If the ROA is high, then the bank is using its assets in an efficient manner. The Net interest margin ratio quantifies the banks interest income and the interest the bank pays to its lenders. A high NIM indicates a high profit for the bank. Nevertheless, a high NIM could also be an indicator of risky lending processes that lead to losses when it comes to providing loans (Khrawish, 2011). The net profit margin ratio is the fourth ratio which quantifies the bank's ability to make income relative to expenditure. The current study used the margins for net profit and ROE ratios.

### 1.1.2 SACCOs in Kenya

A cooperative society is an independent enterprise made up of individuals that voluntary come together to improve their economic abilities and also to meet their needs and goals by co-jointly owning and managing an independent and democratic controlled business. The cooperative is meant to pool resources from its members, do away with middlemen and achieve a common objective (Roos et al., 2017). For the people in society and communities, cooperative societies are great organizations to improve their living standards especially if the members are united and willing to partner to uplift each other. The co-operatives are established focusing on 7 ideologies provided by the ICA. These principles are information, training, autonomy and independence (Hans, 2012).

The Sacco sector in Kenya is the largest in Africa and seventh globally (Gachara, 2010). The sectors savings portfolio is at Ksh 190 billion while its assets are estimated at Ksh 230 billion. The Sacco sector also makes about 20% of the country's savings. However, the sector

is not without challenges that include poor market orientation, lack of innovation, poor controls, mismanagement and poor service delivery. The SACCOs are still unable to meet their customer needs of innovative and digitalised products. This strong cooperative sector which is also the largest in Africa contributes significantly to Kenya's economy at 43% of the nation's domestic product (GDP) and providing jobs to more than 300,000 individuals and also being a source of self-employment activities. Sacco Society Regulatory Authority (SASRA) was established by the Kenyan government through the Sacco Societies Act 2008 to protect profits from this business and came up with important regulations that touched on the country's deposit-taking Saccos. This was meant to improve transparency and accountability in this sector (Sacco Society Regulatory Authority [SASRA], 2018).

The cooperatives in Kenya have a four-tiered structure with primary, secondary, tertiary and national cooperatives making up the four-tiers. There is only one apex society among the cooperatives known as the Kenya National Federation of Cooperatives (KNFC). Its mandate is to promote, develop, guide, assist and uphold the principles of the SACCO and cooperatives. Another organization worth recognizing is the ACCOSCA registered under Kenyan law found in the Societies Act, Chapter 108 (Kenya Union of Savings and Credit Cooperative [KUSSCO], 2009).

The Kenyan SACCOs are said to be making headway in Africa and the seventh in the world. The industry accounts for 67% of total assets and 62% of all deposits or savings in Africa. The rate of growth of SACCOs in Kenya is very high compared to the growth of credit unions worldwide, as there are 55,952 credit unions in 101 countries worldwide (World Council of Credit Unions [WOCCU], 2013). In 2013, WOCCU Award was granted to Kenya for Exceptional growth in membership owing to the accomplishment of a 23 percent membership growth rate. The industry had 490 billion savings, accounting for 33% of the

country's savings (WOCCU, 2013). Such results indicate that SACCOs play a critical function in creating competition in the financial sector. When the SACCOs are associated with the cooperatives, their growth rate at 8.6% had grown by 15% in 2013 (Tirimba, 2013).

#### 1.2 Statement of the Problem

SACCOs operate in dynamic business environments. There is an increasing importance of intellectual capital as a vital resource in a changing knowledge-based environment where this resource has turned out to be a major contributor to the existence and sustainability of firms, in addition to providing the firms with a competitive edge (SASRA, 2018). The growth of the sector is affected by competition from other players in the industry including commercial banks, micro-finance institutions, money transfer services such as Mpesa among other non-formal financial providers (Nkuru, 2015). The innovativeness in this sector that can see the development of better products is still limited due to Bureaucratic bottlenecks and inefficiency in the provision of support and incentives given by the government to promote innovative. The sector has to depend on governments help as its institutional capacity is limited such that it can't offer research and development services (Okelo et al., 2015). Such developments have been a threat to the existing SACCOs and those still standing have had to come up with strategies that would help them survive in the face of these challenges and changes.

According to a press release by SASRA (2018), the Kenyan SACCOs financial performance is on a decline and the challenges identified as the cause to this observation was the lack of skills among the management and board members. The results are in line with findings provided by Kivuvo and Olweny (2014) indicating that the growth of SACCOs in Kenya is quickly declining the number of registered SACCOs in Kenya by December 2010 were documented to be 6,727 and these were shown to employ about 303,455 individuals

(Government of Kenya [GOK], 2014). The results indicated that about 3457 (51%) of the SACCOs had halted their operations despite great empowerment efforts from the government. The increased closure of SACCOs negatively affects the achievement of millennium development and vision 2030 goals that have to do with improved financial inclusion.

Knowledge as a resource is not tangible and it is also not visible this makes it difficult to measure it using the common accounting measures that are used to quantify other resources. As noted by Maingi (2015) the Kenyan SACCO sector is not well prepared to tackle its current challenges such as poor loan pricing ways, slow adoption of information technology and inadequate capital. According to findings from a research done by WOCCU (2013) the Kenyan SACCOS are dealing with liquidity challenges and most of them cannot meet the high demand for credit and savings withdrawal. According to Ondieki et al. (2017) the lack of managerial knowledge and skill among the SACCO executives has also impacted on the performance of these institutions.

There have been studies done in the past on the topic of IC. Otor (2015) study looked into the impact IC has on the performance of SMEs found in Mombasa County. Another study done by Kariuki et al. (2015) established the association amongst IC and NSE listed firm's performance. Further, Waititu et al. (2013) analyzed the existing relationship between IC accounting and the performance of Kenyan pharmaceutical companies. The findings indicated that SACCOs are playing an important role in the country's economic development and that the inadequate and unstable business services they provide can have a negative effect on the quality of life of average Kenyans if these challenges are not addressed soon. The issues can also impact the country's economic growth in the long run. Unfortunately, not one study looked into the impact of intellectual capital on financial sustainability of savings and

credit cooperative societies in Kenya which is the reason the current study was undertaken to fill this gap in knowledge.

# 1.3 Purpose of the Study

The objectives of the study entailed a general objective and specific objectives as discussed as follows.

#### 1.3.1 General Objective

The study determined the effect of intellectual capital on financial sustainability of Kenyan SACCOs.

# 1.3.2 Specific Objectives

The specific objectives of this study were;

- To establish the effect of human capital on financial sustainability of Kenyan SACCOs.
- To determine the effect of structural capital on financial sustainability of Kenyan SACCOs.
- iii. To determine the effect of relational capital on financial sustainability of Kenyan SACCOs.
- To determine how customer capital affects financial sustainability of Kenyan SACCOs.

# 1.4 Research Questions

The research questions addressed in this study included;

- i. What is the effect of human capital on financial sustainability of Kenyan SACCOs?
- ii. How does structural capital affect financial sustainability of Kenyan SACCOs?
- iii. What is the effect of relational capital on financial sustainability of Kenyan SACCOs?

iv. To what level does customer capital affects financial sustainability of Kenyan

SACCOs?

1.5 Research Hypothesis

H<sub>01</sub>: There is no effect of human capital on financial sustainability of Kenyan SACCOs.

H<sub>02</sub>: Structural capital does not affect financial sustainability of Kenyan SACCOs.

H<sub>03</sub>: Relational capital has no effect on financial sustainability of Kenyan SACCOs.

H<sub>04</sub>: Customer capital does not affect financial sustainability of Kenyan SACCOs.

1.6 Significance of the Study

The findings of the research were used by the stakeholders;

1.6.1 Savings and Credit Cooperative Societies

The management staff of the different SACCOs will find the results of this study beneficial.

The research will give them insight on the impact intellectual capital has on financial

sustainability of SACCOs. The findings are significant as investors will find the firms' IC

helpful as it will reduce the risk of transacting with the firm as investors will be aware of its

future prospects and valuation of the SACCO.

1.6.2 Government and Policy Makers

The data that was obtained was useful to those in charge of policy making and to the public

officials. The study helped financial regulatory institutions such as Central Bank of Kenya

and SASRA in coming with proper policies and regulations to pinpoint the different

intellectual capital components and how these components have impacted the performance of

SACCOs financially. Many companies in today's business environment consider knowledge

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as an important firm resource. This is even more vital for financial sector since the intellect of its employees is often used to help the firms improve performance.

#### 1.6.3 Academicians and Researchers

The findings of this study would be used by academicians and researchers and research institutions that want to research further on the IC topic. The data it will provide will also be an addition to the existing literature and academicians will use this information as referencing material and a foundation for more research. This research will provide valuable knowledge on intellectual capital on financial sustainability of Kenyan SACCOs.

# 1.7 Scope of the Study

The study determined the effect of intellectual capital on financial sustainability Kenyan SACCOs. The study specifically determined the effect of customer capital, social capital structural capital, relational capital, and human capital on the financial sustainability of Kenyan SACCOs. The study target population was the management staff in the SACCOs in Kenya because they were part of the daily undertakings of the SACCOs. The study duration was three months.

#### 1.8 Operational Definitions of Terms

Customer Capital these are valuable relationships built by an organization with its customers and can be deduced from the customers' loyalty to the firm products.

**Financial sustainability** this is the efficient use of the firm resources by the company to meet its business operations and generate profits.

**Human Capital** is an intellectual capital component made up of the employees, skills, experience, characteristics such as creativity that the employees use in their responsibilities to provide value for the firm.

**Intellectual Capital** is a firm's knowledge resources that are used as a source of competitiveness by the firm.

**Relational Capital** this is the association existing among the organization and its clients, suppliers among other stakeholders.

**Structural Capital** the main intellectual capital component is made up of supportive databases, processes and infrastructure that allows for the functioning of the human capital.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

This chapter highlights related theories related to the impact of intellectual capital on financial sustainability. The researcher further reviews the empirical literature relevant to the research problem under investigation. The conceptual framework and operationalization are further explored.

#### 2.2 Theoretical Review

This section looks at the theoretical structure that formed the basis for this study. This study was hinged on stakeholder theory, legitimacy theory, resource-based theory, human capital theory, and constraint-induced theory of financial innovation.

## 2.2.1 Stakeholder Theory

Stakeholder theory was advanced by Freeman (1984) and posited that in line with the stakeholder approach, organizations need to report to the shareholders among other stakeholders. Therefore, the contrasting interest of the various stakeholders has to be considered when providing disclosures. This is because, depending on the varying stakeholder interests, this can affect an organizations ability to achieve its goals. Stakeholder theory is used to examine those groups to who an organization is responsible. According to André (2012), firm's operations are important to different stakeholders such as employees, shareholders, creditors, regulators among other interested parties. For instance, the owners have committed their capital to the business, employees have invested their effort and intellectual resources while clients have invested their money and trust to the business. Society expects the organization to provide infrastructure, conserve environment and provide education to employees and the needy in the society.

According to stakeholder theory, firms should have a role to play in the communities and societies in which they operate (Omran & Ramdhony, 2015). Stakeholder theory highlights the need to involve all the stakeholders in the firm operations whether these parties are affected directly or indirectly by the organization activities. The managerial aspect of this theory explains that firms should respond to the concerns of those stakeholders who directly impact on the firm from an economic sense. The ethical facet of stakeholder theory explains that stakeholders need to know about the affairs of the firm constantly, and this can be achieved through providing the necessary disclosures. Stakeholder theory has been criticized in that there are instances where it is difficult to identify all possible stakeholders in an organization. This study assisted in explaining how customer capital affects financial sustainability of Kenyan SACCOs, in that, customers as the main stakeholders are crucial to a firm as they are the ones who maintain the business. In relation to the theory, interest of the various stakeholders has to be considered when providing disclosures. This is because, depending on the varying stakeholder interests, this can affect an organizations ability to achieve its goals.

#### 2.2.2 Legitimacy Theory

Legitimacy theory can be traced back to Dowling and Pfeffer (1975) that argued that the social perceptions of any firm should be reported while taking the society expectations into consideration. Rahim (2017) considers legitimacy as an indication that the organization operations are appropriate, desirable and proper and done in line with acceptable social norms, values, beliefs and definitions. Legitimacy theory is popularly used when scholars try to explain the firm's social and environmental reporting practices in order to fulfill the social contract that enables them achieve their objectives. The assumption made in this theory is that the firm practices should match those of the society so as to gain community approval, access the resources from the community and have a place in the society if its operations are

to be sustainable. Lokuwaduge and Heenetigala (2017) explained that the firm achieves legitimacy if the organization values and actions are in line with those accepted by the society in which it exists. There is need for congruency between the firm actions and values of the community if the firm is to continue serving in the community.

As noted by Luethge and Han (2012), social disclosure relates to provision of non-financial and financial firm data that shows how it relates with its social and physical environment. This is information is found in the corporate social and annual reports. Further, Luethge and Han (2012) noted that society does give an enterprise some level of legitimacy and status and it is prudent that the firm takes this into consideration. The theory looks at how the firm responds when it comes to important societal issues and if the goals of the firm take into consideration the goals of other firm stakeholders. Legitimacy explains that there is need for a contract to exist between the firm and the society.

Legitimacy theory explains the why, what, how and when the firm addresses some concern and items that are related to the views of the external stakeholders. The theory is linked to the perception the community has about the firm. Lightstone and Driscoll (2018) posited that legitimization can be achieved through voluntary or mandatory disclosure in the firm annual reports. The theory has been criticized by its reliance on the social contract that is not binding in law – opponents argue that this social contract only exists in theory and that there are no real and direct sanctions on an entity that does not engage in socially responsible behavior. Other opponents or legitimacy theory argue that the use of company resources in environmental and societal undertakings, unless compelled to do so, is a way of expropriating resources from the organization, contrary to the expectations of the owners.

Legitimacy theory was used in this research since it gives a rationale for establishing social and environmental disclosures by SACCOs. SACCOs are often regarded as firms that only

care about their member interests, the present study aimed at examining whether SACCOs seek to achieve legitimacy by having operations that taking into consideration the societal needs and if they provide environmental and societal disclosures. The social and environmental disclosure themes examined were employee welfare, member welfare, products and services, community engagement and environmental conservation. The theory was also used in this study since it informed the study variables. The argument by Gutierrez-Nieto et al. (2018), is that a relationship does exist between the firm's size and its disclosure practices. The reason behind this is because larger firms' operations are larger, they are highly scrutinized by society and their stakeholder's concerns in regard to their operations are much more compared to smaller firms. This theory helped in establishing how relational capital affects financial sustainability of Savings and Credit Cooperative Societies in Kenya. This can be elaborated as the theory explains that the way a firm relates to the community is important and hence the theory is linked to the perception the community has about the firm.

#### 2.2.3 Resource Based Theory

Resource Based View (RBV) was made up by Barney (1991), but the view had been in existence since the 1980s and was regarded as a way to gain competitiveness by firms. This theory posits that firms can achieve a competitive advantage that is sustainable if it takes control of its intangible and tangible assets. The recommendation made by Venturini and Benito (2015) is that firms should focus on value addition to improve their performance.

Firms do have intangible resources and more emphasis has been put on the need to consider intangible resources for improved performance. However, the research on intangible resources is not void of challenges such as the lack of standard definition. There are numerous definitions of intangible resources which makes it difficult to have a universal explanation for intangible assets. This issue has also impacted on the research related to this

field as it has been slow and the lack of integrated definition does not help in improving the current research status (Andriessen, 2014; Jourjsen, 2010). The growth and performance of SACCOs depends greatly on the type of resources they have and how effective and efficiently they are utilized. The availability of structural resources such as routines, strategies, process manuals, firm charts and databases require development and maintenance. Thus, a SACCOs that has more resources is likely to have a competitive advantage over other SACCOs that are not as endowed. This theory was helpful in deducing the impact of structural capital on financial sustainability of Kenyan SACCOs. The theory explains that the growth and performance of SACCOs depends greatly on the type of resources they have and how effective and efficiently they are utilized.

# 2.2.4 Human Capital Theory

Schultz (1961) came up with the human capital model and Becker (1964) developed it further. According to an article by Schultz titled Investment in human capital is important to a firm and some forms of such capital include the competency and knowledge in the firm. Further, he pointed out that capital is attained due to the growth of an organization. Human capital includes investing in employees through training and educating them. According to Schultz, when an organization is able to acquire knowledge and skills it can be said to have acquired production means. The salary differences in the firm are due to the different education and health levels among the workers. When a firm opts to invest in their workers education and skills then they will reap the benefits of this investment through increased productivity among the employees which will result to better performance and growth of the organization.

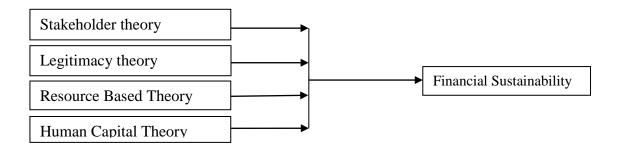
The emphasis of this theory is on value addition provided by human resources. The people in the firm are seen as assets and further points out that any investment made by the firm on the company employers will result to good returns. This theory borrows some of its views from the resource-based view of strategy provided by Adamides (2015), according to the theory, firms can have sustainable competitive advantage if its human resource assets are unsubstitutable and imitable by other organizations. An employer who takes time to train and develop employees has a higher chance of attracting talented workers and their retention rate is also high. The returns the employer gets after this investment include increase in productivity, performance, innovativeness and flexibility that come from the improved knowledge, competency and skills among the employees. As noted by Hessels and Terjesen (2010), entrepreneurial human capital is the person's experiences, knowledge and skills that have to do with the individual's entrepreneurial activity. Entrepreneurial human capital is crucial to the growth of entrepreneurship.

Past research on human capital has shown that this is one resource that positively affects the growth of a firm. The argument given by Eesley (2016) is that when an individual has a higher entrepreneur capital they are able to grow more in terms of their entrepreneur abilities and productivity which increases profits and retention rates in the firm, besides, entrepreneurs that have a higher education level can harness the social connections and knowledge they acquired in their education journey to get resources that can help them start their businesses. Other traits of entrepreneurs other than education such as their ability to apply for positions in a firm can be said to be a source of a business growth. Human capital in a given field can be improved through trainings and experience in this field. Business training can also give the entrepreneur knowledge which they may not have gotten during their formal education process. Some of the specific knowledge that an entrepreneur can achieve include proper management skills for their specific venture. Further, entrepreneurs attain industry and entrepreneur specific human capital knowledge that can see them unpopular business opportunities and see them succeed through the use of proper performance strategies. The

human capital theory can help an entrepreneur make the best choices in their business. The theory has helped to assess how SACCO's financial sustainability in Kenya is affected by human capital because, when an enterprise is able to acquire knowledge and skills, it can be said that it has acquired means of production and that people in the company are property.

#### 2.2.5 Theoretical Framework

Figure 2.1:
Theoretical Framework



Source: Author (2019)

#### 2.3 Empirical Review

This section focuses on various studies in relation to intellectual capital disclosure on financial sustainability discussed as follows.

# 2.3.1 Human Capital

Khan and Khan (2010) study was on human capital disclosure done by Bangladeshi companies. The study analyzed content where the analyzed data included annual reports from a three-year period and the companies who were part of the study included 32 manufacturing firms that were also listed on the Dhaka Stock Exchange (DSE). These firms were chosen based on market capitalization factors and their HC reporting practices were analyzed. The HC data that came into light was on employee recruitment practices, available employees' opportunities, career development, employees' number and training of staff. The findings

indicated that the HC reporting practices of these firms were better than reported in regard to the items on the list. Further due to intervention from Bangladesh regulators, reporting had improved between the 2009 and 2010 period.

Abeysekera (2018) looked into the motivations behind disclosures related to human capital in firm's annual reports. To determine motivation, the political economy of accounting perspective was used. The research used content analysis to determine human capital disclosures in Sri Lanka firm's annual reports. The study used eleven case study interviews to determine what was the motivation behind this disclosure. According to the results, firms embraced disclosure since it reduced the tension between the firm and its stakeholders, which helped the firm acquire more capital.

Abeysekera and Guthrie (2014) did a survey in a developing country on its HC reporting practices. The researcher used content analysis to determine the HC reporting methods used by companies in Sri Lanka. The study sought to deduce the patterns of disclosure used in the sampled firms and also to provide the differences existing in disclosure practices between Sri Lanka and other developed countries.

Beattie and Smith (2010) study focused on human capital disclosure and value creation. The researcher used a survey questionnaire as their research tool where HR directors in UK listed firms were the respondents. The findings were compared to a past survey from FDs that looked into IC disclosure. The number of follow-up interviews done were 13, and the opinions they gave on HR specialists were compared to those of the FD for eight firms. The factors shown to greatly contribute to value creation included employee behavior, motivation, positive attitude, education and skills. There was shown to be collaboration among safety at the workplace, employee development, training and turnover rates. The study also found that the firm tried to capture employee data related to employee's satisfaction, motivation and

commitment. There were differences noted when it came to disclosure on the internal correlation of the information. External disclosure was shown to be an important recruitment tool. Further, it was noted that disclosure of data that could negatively affect the firm competitive advantage was not encouraged. The tool that was seen as the most effective when it came to communicating disclosure information to external stakeholder was the annual report. Although, there are differences in views, it was found out that FDs recognized the importance of HC and how committed they were to provide disclosure to the external parties. The findings were nit in line with past research as there was no notable difference in the opinions of the specialists in relation to value creation by the four components of HC.

Abhayawansa and Abeysekera (2018) tried to explain HC disclosure using a research-based perspective. The research reviewed the existing literature on IC and the HCD levels in different media firms and how this information was used by the capital market. The conceptualization of HC in these studies was done and an opinion on adequacy of this conceptualization was made. The findings were that the resource based theory was a better theory when it came to giving a more appropriate HC conceptualization in line with the capital market demands some ICD literature supports the HC theory when it came to HC conceptualization providing that the theory is made up of the skills and knowledge processed by workers either as individuals or collectively in organizations. This has lowered the HC scores and HC is not seen as a useful resource by the capital market. When HC is viewed from a resource-based perspective, then its value creation potential is recognized.

Ax and Marton (2018) looked at HC disclosures and the management methods used by sixteen most traded firms on the Stockholm Stock Exchange (SSE). The research got its findings from two data sets including disclosure data from annual reports and management [practices from emailed questionnaires. The outcome of this study indicated limited

integration between the different data sets. The relationship was significant on an aggregate view but there was no systematic relationship after detailed tests were done. However, the researchers observed a significant association between the perceived significance of disclosure by the firms and the management practices used internally although this relationship was not seen in the actual disclosure.

Wagiciengo and Belal (2012) investigated the disclosure of intellectual capital by South African firms. The primary purpose of their research was to investigate the degree and nature of the disclosure of intellectual capital in the top 20 South African companies over a 5-year period (2002–2006). The findings reveal that intellectual capital disclosures in South Africa have increased considerably over the five-year study period, with some companies reporting substantially more than others. Human capital tends to be the most common classification among the three broad categories of intellectual capital disclosures.

Lafuente and Rabetino (2011) study on the association between HC and growth among Romanian small organizations suggested that HC was important and had an impact when it came to the small firm's growth. The involvement of the entrepreneur in their human capital increased employment growth rates. The study did not enrich the findings and more research in this topic needs to be done, more so, on transitional economies.

Nerdrum and Erikson (2011) looked at IC from the human capital perceptive as used by Norwegian firms. The results indicated that IC among the Norway firm was achieved through formal training obtained by employees or informal on job experience achieved after many years in the job. Future research should be done on the existing interrelationships between different trainings and the growth of the firm. Yet another study should be conducted to determine the interdependences and multiple effects of IC and the relationship between IC and human capital.

Hay et al. (2019) investigated the association amongst the Lebanese commercial banks (LCBs) financial performance and human capital (HC). For the period 2015-2017, a study of 48 bank / year observations is used for the rate of HC disclosures in the LCB. Based on the content analysis, the HC index developed by the researchers is used to measure the level of HC disclosure. The outcomes reveal that the degree of HC disclosure has a significant negative relationship to the financial performance of commercial banks in Lebanon. These findings suggest that LCB should properly disclose HC information in order to enhance its value and performance.

Kamal et al. (2012) aimed to identify the link between the intellectual capital productivity level in terms of human capital, capital employed and systemic capital (VAIC) and the Malaysian commercial banks quality from the ROA and ROE conventional accounting-based perspective. The findings showed that the association amongst the intellectual capital and the Malaysian commercial banks performance. In addition, the findings established that performance of the bank is significantly impacted by intellectual capital variables.

Onuche and Jones (2019) investigated effect of Intellectual Capital Costs on Financial Performance of listed Commercial Banks in Nigeria during the period 2007 to 2016. The choice of the period was predicated on establishing the relationship of the variables during the Sub-Sector's post consolidation era in Nigeria. It employed ex post facto research design and extracted data from cross section of three banks from ten (10) year's annual report. The data were purposively selected based on availability of data. The study adapted the Value-Added Intellectual Capital Coefficient Model as proxy for Intellectual Capital Costs while Return on Equity was adopted as proxy for Financial Performance. Engaging the Ordinary Least Squares based balanced Panel data regression technique in a longitudinal data framework of thirty (30) observations, the results established how Intellectual Capital Costs

affect Return on Equity of the selected Banks in line with a priori expectation. It provided evidence that 52.8% of the total variation on Return on Equity of listed Banks on Nigeria Stock Exchange is attributable to variations in Intellectual Capital Costs proxies included in the model. The study showed that, on an individual basis, Human Capital Efficiency has a strong, significant relationship with Return on Equity, whereas Structural Capital Efficiency and Capital Employed Performance on an individual basis have a positive yet insignificant relationship with Return on Equity. The study therefore substantiated that Intellectual Capital Costs significantly affect Return on Equity and therefore concludes that Intellectual Capital Costs has significant effect on Financial Performance of listed Commercial Banks in Nigeria.

Muhammad and Ismail (2009) attempted to examine the efficiency and performance of intellectual capital in the financial sector of Malaysia. The findings are based on data from 18 financial sector companies for the year 2007. The banking sector was identified to rely more on intellectual capital, led by insurance companies and brokerage firms. Intellectual capital has also been shown to have significant and positive relationships with the performance of the company measured by profitability and Return on Assets (ROA).

Wagiciengo and Belal (2012) looked at how South African firms presented their IC disclosures. Content analysis helped review the existing patterns in the IC disclosure practices during the period of research. The findings showed that there was an increase in IC disclosures in South Africa over the past five years and some firms had more disclosures than others. The human capital disclosure was the most popular of the three disclosures. This result was a bit different compared to past results that indicated that external capital was more popular.

Onyekwelu et al. (2017) carried out a study on Effect of intellectual capital on financial performance of banks in Nigeria. The study adopted an ex-pose facto research design and

made use of the value-Added Intellectual Coefficient (VAICTM) for ascertaining how intellectual capital indices affects three Nigerian banks financial performance. The study collected data from yearly financial reports and account of the selected banks and analyses by use of tools for regression. The result of the study showed that Human capital affects banks financial performance positively and significantly but CEE and SCE are not significant and further indicated that the banks with high Intellectual capital also showing greater financial performance.

## 2.3.2 Customer Capital

Ling-Ching and Wang (2012) study that quantified customer capital in China used customer targeting and base aspects. The results indicated that customer targeting and base aspect had a notable effect on the ability of the firm to deduce the needs of the customers and the management of their information system. The two aspects also impacted customer service positively which improved the customer's loyalty and the intensity of the market. The study was done on small firms which leaves a gap in relation to large firms.

Jamal (2018) determined how six components of intellectual capital affect the organizational performance of ICT SMEs operating in Penang, Malaysia. The developed model was tested through SEM and it adequately explained the effect of intellectual capital on organizational performance. The results suggest that customer capital has a significant positive influence on organizational performance of ICT SMEs while human capital, structural capital, social capital, technological capital and spiritual capital remained insignificant.

As noted by Roos et al. (2017) in a research which quantified intellectual growth of firms, the study pointed out that customer capital is said to be the association between the firm and its customers. The conclusion made was that the major theme of customer capital was customer relationships and channels used in marketing. Managers who are trying to come up with ways

to improve their firm's success often disregard the knowledge they can get from customers which can help them improve their firm's performance.

Orens et al. (2013) looked into the disclosure of customer value and the cost of equity capital. The researchers reviewed the website content of four European nations looking out for precision of valuable customer information and an empirical test was also done to determine if there was a relationship between content and precision and the implied cost of equity capital. The findings indicated a negative relationship between the disclosure of customer value and the firm's equity capital cost. The precision with which the customer information was disclosed impacted this relationship. A negative association was also determined the customer value disclosure in quantitative or hard form and the cost of equity capital. However the relationship between qualitative or disclosure of soft customer value and equity capital cost was different. The intensity of industry competition influenced the relationship between hard customer value disclosure and equity capital cost.

Jahanshahi et al. (2018) study was on the impact of customer capital on the speed of response from customers and innovation: the mediating role of marketing capability improves the market data available for the firm. This data helps the organizations come up with speedy response in case of market changes whereby they are able to producer innovative goods and services that can satisfy the needs of the clients. Further, the relationships built over time allow the firm to be aware of the customer's demands and needs in a timely manner. Thus, the firms are able to respond to the customer demands before competitors. The location of study for this research was Iran after its sanctions. The study used survey results of 107 firms showing that the firm is able to respond quickly to any change in demand and needs in the market by producing innovative products. The relationship also improves the time the firm

takes to be aware of their customer's needs. This also means that the firm responds faster to these needs before their competitors.

Chang and Tseng (2015) sought to build customer capital through the marketing of relationship activities. The researchers used a survey to collect data from the four multilevel marketing firms located in Taiwan. The study explored the role played by factors influencing client's equity in the impact of customer capita marketing operations. The research reviewed 306 employees' responses by use of structural equation modeling analysis.

Yıldız et al. (2014) investigated the measuring of IC components by use of companies' activity reports. The researchers used content analysis to analyze data from three banks from the public, private and participation sectors. The study ranked the IC components from the bank's activity reports in the years between 2007 and 2011. According to the results, the banks first disclosed customer capital, then SC and third HC. Due to the sectorial differences the conclusion made was that private banks, participation banks and public banks viewed IC as crucial in that order.

#### 2.3.3 Structural Capital

Zdolsek and Kolar (2013) study that was based in Iran looked at how structural capital affected competitive intelligence. According to the findings, structural capital represented by information systems and organizational capital represented by content factors of the structural-organizational intelligence (SOI) were important in the attainment of IC. The study focused on large firms and therefore its findings may not be ideal for small companies. The survey also focused on only Iran while 40% of the participants worked in state firms which may be the reason the SOI amount was found to be negative as these state companies had a budget that was active on the monopolistic markets.

Walsh and Ungson (2011) looked into organizational memory. To come up with a more relatable theory, the study researched on anthropomorphism; came up with a definition of organizational memory and its structure; and looked into the methods of data acquisition, retrieval and retention. Further, the study discussed the ways organizational memory can be utilized, misused or abused by firm management. Some of the theories reviewed looked at memory issues. The research also pointed out the challenges that would meet future researchers who tried to research this area of study.

Hejazi et al. (2016) research was on the structural and intellectual capital impact on organizations performance. The method of measure was Tobin's Q. the data used was from 100 listed companies on the Tehran Stock Exchange (TSE) that was collected between 2000 and 2006. The findings indicated a favorable effect between the two study variables and the performance of firms. Therefore, the firms in Iran can consider human and intellectual capital as factors that could help them improve performance. Further value-added intellectual capital can be a proper tool to improve the decisions made in Ukrainian capital market. These results if used by the managers and stakeholders in the capital market can help them improve the sector. The modern business environment is in need of intellectual capital as it adds value to the economy.

Ogbodo et al. (2017) investigated the impact of intellectual capital on financial performance of quoted deposit money banks in Nigeria from 2010-2015 to compare the performance of intellectual capital indices among firms in the banking sector. The employ the VAICTM model to measure the efficiency of value added of tangible and intangible assets used by the firm in its operations; data obtained were subjected to statistical analysis using Pearson coefficient of correlation, ordinary least square regression, hetroscedasticity test and

Hausman test. Their findings revealed that the three components of intellectual capital are all significant at 5% level of significant.

Gogan et al.(2015) had a proposed model to measure structural capital. The best models to measure structural capital should be effective that are implemented well to capture and manage this capital. This will ensure the benefits of structural capital are determined and improved. This has seen the importance of measuring SCV rise in the past few years. Therefore, researchers should develop models that focus on the components of SC as this will make it easier to measure this form of capital.

Beattie and Smith (2013) focus was on business value creation models: refocusing the intellectual capital debate. The relationship between value creation, IC and the business models was shown by interview results provided by eleven firms. The conclusion made was that the business model provides a concept that can be used to refocus on the IC debate. This concept was shown to be dynamic, multi-level, holistic and spanning across boundaries. This analysis supports the move to integrated disclosure supported by a central model. The study also gave suggestions for future study of this topic.

Aramburu et al. (2015) examined structural capital, innovation ability and the performance of the firm among technology related organizations. The population of this study was these organizations that were based in Colombia. The tool for data gathering was a questionnaire and provided to the CEOs of the targeted firms. The sample size was made up of 69 firms and the analysis of the gathered data was through structural equation modeling (partial least squares approach) using PLS-Graph software (Chin & Frye, 2013). The findings were that structural capital has a great rile to play and it explains to a high extent the innovativeness and generation of ideas for new projects in the organizations. However, there were variations in the influence each of the strategic capital components such as external structure,

professional development policies, technological capital, hiring, innovation strategy, organizational culture and design had on the effect of innovation and idea generation in the firm projects. Besides the study found out that structural capital was important in enabling the firm innovation capabilities and had a significant effect on the firms performance.

#### 2.3.4 Relational Capital

Delerue-Vidot (2011) research was on resourcefulness and assurance: the moderating effect of relational capital in Canada. The outcome showed a favorable relationship between unilateral commitments and perceived opportunistic behavior. The creation of a basis for exchange saw relational capital becoming a moderating factor between the existing relationship. This study focus was not on institutions which is why relational capital impact on the growth of institutions needs to be studied.

Bianchi et al. (2016) study was on disclosure of relational capital, corporate reports as well as performance of the companies in Europe. The sample for this research was made up of 80 firms and an analysis using content analysis on 51 items was done related to the companies' relational capital and their voluntary and mandatory reports. A RCD index was used to determine if RC was significant in its impact of the firm performance. The findings were that RCD had statistically significant with capital expenditures, operating cash flow and revenue. However, RCD was shown not to have any significant impact with the firm's value.

Mura et al. (2014) study was on the effect of social capital on exploration and exploitation: modeling the moderating effect of environmental dynamism. The three dimensions studied in this research were cognitive, structural and relational. Environmental dynamism moderating impact was considered on the relationship between knowledge exploitation, social capital and exploration. A structured questionnaire was used for data gathering from head physicians located in Italian hospitals. The sample was made of 174 observations that were analyzed by

use of different regression models. The findings found that there was a favorable effect of cognitive social capital, relational and structural capital on exploration and knowledge exploration which was an addition to the existing literature on structural and contextual assets of a firm. There is need for strong relationships if firms are to access external knowledge and also be able to collaborate this knowledge with the already available internal knowledge.

Ortiz et al. (2016) investigated influence of relational and cognitive social capital on external knowledge acquisition strategies. The empirical study was done on Spanish firms whose operations focused on pharmaceutical and biotechnology activities. The study focus was the effect of trust as a component of relational capital and purchase and alliances as two knowledge acquisition strategies. The paper further looked at the effect of the firm cognitive social capital on the association between relational social capital and forming alliances as a way of acquiring knowledge. The argument made was that common and shared values could act as a moderating factor on the association between trust and knowledge acquisition based on the association existing among agents. The findings indicate that relational social capital did influence the two ways of knowledge acquisition but the impact was shown to be more significant when it came to alliances than in direct purchasing but it wasn't impacted by the relationship between relational social capital and cognitive capital.

Huang and Liu (2018) focused on the effect of social capital and knowledge acquisition on service innovation: an integrated empirical analysis of the role of shared values. The hypothesis made was that social capital may impact innovation through creativity and the acquisition of knowledge. The study further argued that shared values served to strengthen the association between creativity and knowledge acquisition and improve innovation when creativity is at all-time high. The testing of the integrated mediation-moderation model was done with the help of 554 hotel staff data gathered from the developing regions of Mainland

in China and Taiwan. The findings were used to support the hypothesis and integrated model used. The implications in theory and managerial terms were also reviewed.

Stevenson and Radin (2009) research focused on how social capital. and social influenced affected companies board of directors. The study surveyed board members of 14 firms conducted a study on the social capital and social influence on the board of directors. The findings were that in a network made of strong ties, ties to others were essential predictors of social influence than toes across boards and social capital. The ties among the board members were the social capital among these members made up of past relationships with other board directors, ties with other board members and membership in cliques among the network of ties in the board. These findings indicate that associations among board members are essential when it came to social dynamics on the decisions made by the board members.

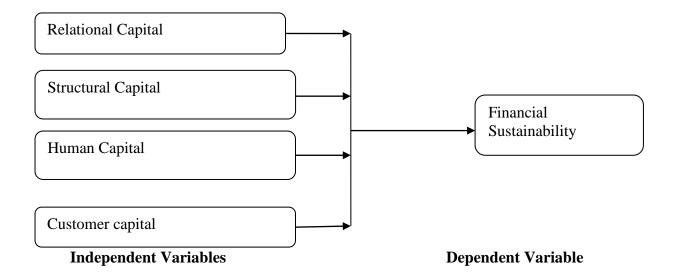
Prashantham and Dhanaraj (2010) focused their study on the social capital impact on the international growth of new businesses. The study used case studies focusing on the software firms and came up with a model that sought the influence of social capital on internalization of new ventures. The hypothesis made was that founders of new enterprises that were globally connected such as those with MNC experience have more social capital compared to others. The study analyzed the processes that were part of social capital evolution and also provided the mechanisms of replenishment and decay overtime. Network learning as a factor was found to greatly influence new ventures in realizing their contribution of social capital to global growth.

## 2.4 Conceptualization

This section presents a discussion on human capital, relational capital, structural capital, customer capital and financial sustainability.

Figure 2.2:

Conceptual Framework



Source: Author (2019)

# 2.4.1 Human Capital

Human capital are the intangible resources found with groups and individuals working in a firm, which includes knowledge, talents and experience needed to accomplish the needs of the firm (Huff, 2015). Empirical evidence shows that firms whose board members are educated are more profitable and greatly valued in the industry. In addition, the creation of value as an important role of the board members depends on their management of the existing intellectual capital. The study looked at human capital dimensions such as board diversity, skills and experience, the board and its composition. Because there was shown to be a relationship between innovation and human capital, the measure used to quantify human capital was the number of innovative new products.

Another study done on the boards intellectual capital influence in development of the firms intellectual capital, Berezzinets et al. (2016) pointed out that board members used their knowledge, education, experience and networking capabilities to build the firms intellectual

capital in a bid to obtain and monitor the firm resources. The intellectual capital inherent in the board directs were a source of value for the firm and the conclusion made was that the individual traits of the board directors had an effect on the performance of the firm.

Roos et al (2017) points out that works obtain IC from their attitude, intellectual agility and competence. Competence is made up of the workers education and skills while attitude as to do with how the employees behave at their workplaces. Intellectual agility allows the employees to think outside the box and embrace creativity and innovativeness when it comes to problem solving. Although employees are known to be an important asset of any firm, they are not owned by the firm. Slavery no longer exists but there is a lot of debate on the issue of whether knowledge generated by workers is a property of the firm or not. Of example, a software engineer will think of a different code when at home on a Sunday, and yet the firm will still assert this kind of expertise (Huff, 2015).

Similarly, Anton (2018) definition of human capital includes attitudes on life and business, experience, education and genetic inherited knowledge. According to Orlikowski (2012) definition of human capital, it is the company's capability to extract the most effective solutions to the firm's challenges from the knowledge existing in the firms employees. Unfortunately, the loss of employees can affect the memory of the firm as the employees leave with the knowledge they have which can negatively impact of firm performance. However, other argue that when an employee's leaves, it is a good move for the firm as the company is pushed to use new knowledge and new perspectives that come with the new employee who replaces the old one. Further, human capital is indicated to be essential for innovativeness and new strategies to occur whether characterized by development of new sales leads, throwing away old fields, improving one's personal capabilities, coming up with new strategies, brainstorming new research ideas or daydreaming at ones office. The

components of human capital are made up of the intelligence existing in the firm's members (Abeysekera & Guthrie, 2014).

Although AHC reporting is shown to positively affect the profitability of firms, most of the studies done on HC reporting were given a wider study title such as sustainability, corporate responsibility or IC reporting. As noted by Sobhani (2011) HC reporting is the first step in corporate social reporting even before social, environmental, CSR and sustainability reporting can be done.

The existing HC reporting literature can be said to be in three folds (Abeysekera & Guthrie, 2014). The first one looks at financial HC measuring. The second is the decision making process by firm stakeholders using HC data. The third is the coming up of theoretical models by scholars in an effort to reduce the extent, nature and cause of HC measurement and reporting. The current study falls in the third category of HC studies.

The study of Abeysekera and Guthrie (2014) is regarded as one of the earliest HCR studies done in South Asia. The study did a content analysis of annual reports for two years of 30 Sri Lanka firms. The longitudinal research there was a significant rise of HCR observed in the firm's reports. Another study done on India's 17 exporting and software firms by Jindal and Kumar (2012) reported that the IT sector had more HC in their reports done annually compared to firms in other sectors. The study further noted that employee's costs and the size of firms had affected HCR in Indian organizations. Husin et al. (2013) also determined the HCR extent in 100 Malaysian top rated organizations. The resulted showed there was no quality or consisted HCR reporting in these firms.

In Bangladesh, Mamun (2009) looked into 55 companies and the relationship existing between HC reporting and the profitability, type and size of the firm. The results indicated that these firms reported around 25% of their total HC assets. Another Bangladesh study done

by Khan and Khan (2010) who explored the annual reports of 32 manufacturing and service firms for three years, there was a rise in HC reporting because of more strict regulations from the Bangladesh.

It was also discovered that banks had more HC reports compared to other firms. As per a study done by Husin et al. (2013) where 40 manufacturing listed firms were studied, only 42.5% of the sampled firms provided for HC in their yearly reports. Absar et al. (2012) looking at HC reporting between Bangladesh and banks reported that the former disclosed more HC data than the latter.

Rashid (2013) looked at the IC reporting among 136 Bangladesh companies. The findings were that HC was an important reporting aspect of Bangladesh firms although these companies did not report on the many areas of IC like in other developed countries. Although developed countries companies are far much ahead when it comes to HC practices and reporting systems compared to developing countries firms, emerging nations have taken admirable strides in this aspect and are slowly catching up. The study focus was on Bangladesh banking sector since there are very few studies done on this sector despite it being the dominant service sector in the country. The researchers were convinced than the banking sector can be an important contributor to the HC reporting practices in the country (Sharabati et al., 2010).

Disclosing data that relates to intangible firm assets such as human capital significantly impacts the firm since these recordings are not found in accounting and are a source of competitive edge for companies. Financial and tangible assets are easy to buy in the market unlike the purchase of intangible assets such as well qualified and professional employees. Well-qualified and professional workers have to undergo training and spend their time preparing for opportunities and the firm has to create a culture of creativity and

innovativeness to support these workers and to boost the firm competitive edge (Noe et al., 2017).

Thus, the creation and maintenance of intangible assets can provide the organization with an advantage against its rivals. This is why there is a lot of research that support the relevance and importance of intangible assets to a firm (Khrawish, 2011). The intangible assets benefit the firm through increased productivity, more profits and improved production of innovative products which makes the firm more attractive to customers and gives it a competitive edge over its competitors. The disclosure of HC data is essential in any firm and it can benefit the firm by reducing the information asymmetry. Unfortunately, sometimes it promotes the competitors to react which results in the loss of the competitive edge by the firm (Branco & Rodrigues, 2016).

# 2.4.2 Structural Capital

Structural capital (SC) is a resource that helps the organization accomplishes its goals. SC includes assets such as processes, databases, knowledge applications, and information systems among other infrastructure (Hans, 2012). These are all the non-human knowledge storehouses such as routines, manuals, firm charts, databases, strategies and other valuable assets whose value cannot be equated I to its material value. As described by Roos et al. (2017) SC is what is left at the firm once staff members retire to their homes. The source of SC is the firm's processes that are valuable to the firm and show where the focus of the firm is and its future development plans.

Orlikowski (2012) notes that if a firm does not have proper processes and systems to monitor its efforts then its intellectual capital will not be utilized to its best. Firms whose structural capital is strong have an organization culture that supports the employees' efforts to try out new creative things and also supports a learning culture where no one is punished for failing.

Structural capital allows for the measurement of IC during the analysis of firm processes (Gachara, 2010).

Walsh and Ungson (2011) did a study on how organizational performance by knowledge management. According to this study, SC was indicated to be the supportive infrastructure that supports the functioning of human capital. Some of the SC infrastructure mentioned in the study included routines, strategies, processes, manuals, firm structure, databases, software and hardware. In institutions, SC is developed and maintained by the institution workers. As stated by Nunes et al. (2016) most firms do not have knowledge respiratory as they don't have the resources to create one. Knowledge in such organizations is created, transferred, shared and used among the firm employees without the use of automated systems that characterized the large firms. Employees have to learn common knowledge of company issues and often communication is a two-way processes among the employees to enable the organization development (Gachara, 2010).

Wong and Aspinwall (2014) provided characteristics of knowledge management in small firms and came up with the conclusion that structural capital is made up of a set of explicit and intangible resources that help in the development of the efficient and effective systems for use of the organization resources that leads to the growth of the firm. As noted by Edvinsson and Malone (2017) SC consists of norms, company culture and routines that help in the development of competencies in the firm. Without the availability of SC there is no support for other forms of capital.

Orlikowski (2012) study focused on disclosures of intellectual capital in Canadian firms. According to him, the association between SC and human capital exists within the firm social network. The social traits are the connecting factor among the firm members and they lead to the growth of the enterprise. The outlets own the tactic knowledge resources found in the

social networks. Of all the components of human capital SC is the hardest since it relates to other capital sources in regard to its definitions. Structural capital according to the study was also said to include technical and technological competencies. A study done by Hsu (2016) came to the conclusion that structural capital hopes to build a strong foundation based on views from innovative capital, process and organizational capital as explained in the KM model. The study hypothesis was that SC is associated with the positive growth of SACCOs.

The role of institutions in contributing to the nation development more so in developing countries has led to more focus on the entrepreneurship topic by scholars in the past years (Omran & Ramdhony, 2015). There is need for the development of a global environment where institutions can survive, thrive and grow and policy makers agree to this which has seen them pass policies that support this goal in both developing and emerging countries. Institutions are known to make good use of local resources and also support labor intensive projects. However, they are characterized by lack of competitiveness in a dynamic global business environment (Van-Eeden, 2014). There is growing support for institutions since they are known as contributors to both international and national economic development.

A survey done on small businesses show that many start-ups fail and stagnate and according to the survey only 38% of the small businesses are expanding while 58% have not employed any new employees. The survey revealed that most business close within their first three years (Omran & Ramdhony, 2015). This observation was in agreement with a research done by the University of Nairobi's Institute of Development Studies. The sampled businesses were in central Kenya and the results indicated that 57% of the sampled businesses were in stagnation while only 33% had shown any growth. Another research done by the SADC in 1997 indicated similar results. This trend continues despite the increase in small businesses as provided in the Small Business Skill Assessment (Lokuwaduge & Heenetigala, 2017).

## 2.4.3 Relational Capital

Relational capital (RC) is the knowledge found inside a business network that are made up of connections made externally from the environment such as supplier relations, goodwill and loyalty from customers. As pointed out by Xu and Wang (2018) firms with a higher social capital have a competitive edge to their rivals. Social capital is the current and potential social resources that are due to the relations of the individuals and the groups in a firm or a social unit. As noted by Sharabati et al. (2010), social capital is the glue that keeps the society intact. It is made up of connections among people that are founded on confidence and networking. If social capital does not exist productivity, knowledge and innovation will decline. As pointed out by Yazdani and Yogoubi (2011) SC is made up of values, relationships and attitudes that help in the management of people interactions and lead to improved social and economic growth in the community. Social capital also helps in the growth of intellectual capital in firms. Social capital adds value to the firm and it rests on the formal and formal relations among people that are based on trust.

The actions of each person in the social unit contribute to the social capital directly and can improve or negatively affect the relations in the social unit. The motivational impact of relational social capital in most of the research is considered a public good. Generalized trust is not dependent on just one person but on the whole social unit. Further, the degree of agreement in the system is considered to have meaning if it is provided collectively (Coleman, 2010). A person is identified according to his or her association with a social unit or community.

There are three elements of rational social capital including identification, norms and generalized trusty which allow the sharing of knowledge within a network. Thus, all the people in the network gain from the sharing of knowledge in the social unit. As noted by

Portes (2018), there bare assumptions made on rational social capital to better understand it as a public good: (a) the individuals that possess social capital are the ones who make up the virtual communities; (b) members of the community are the sources of social capital as they make available; and (c) in this context relational social capital is identification, norms and trust, which are the three elements of SC. The study looks into the factors that motivate the community members to avail relational SC to the virtual community (Portes, 2018). In addition, we determine the process that enables the community members to trust each other, what convinces each of them that there is a norm to reciprocate this trust and the reason they believe they belong to the community. Thus, the community members' activities and the network ties existing between the members are determined in an effort to determine the source of relational SC.

The ties strengthen is deduced by determining the reciprocity, intimacy, intensity and frequency of the relations between the individuals. The study focus is on relational SC as a public good and also the analysis of the weak and strong ties that allow the individual to feel attached to the community offline research on this topic indicates that community members with strong ties to the community frequently interact, disclose their emotions to others and exchange knowledge (Lightstone & Driscoll, 2018). However, those with weak ties have less knowledge interactions and exchanges. When looked in regard to the online context, individuals with strong ties easily embrace new media and are likely to influence their friends to adopt this media too (Hejazi et al., 2016).

The intricacy in communication of social ties is also shown by the association existing among the inter-firm networks and the firm performance and the intra and inter community ties related to the growth of relational social capital (Woolcock, 2018). The findings indicate that strong ties act as a bond to the social unit members while weak ties are the bridge to the

network. Individuals that have weak ties to the network are not well informed as they don't get information to do with the distance parts of the social unit and will only hear of views from friends or get provisional news only. Thus, the individuals with weak ties are likely to identify with a few friends rather than with the whole unit. However, the argument made is that weak and strong ties are both essential for the network since the absence of weak ties may lead to a fragmented system. Thus the bonding ties are more beneficial to the network while bridging ties have positive external benefits for the unit (Szreter, 2012). The study looks at these differences in terms of the elements of relational SC which include identification, generalized norm and norm of reciprocity.

Relational capital provides that firms don't exist in isolation but on relations with others in their environment and according to (Hormiga et al., 2011) it can be structured into varying levels. From the "Intellectus Model" (Connelly et al., 2011) point of view that measures and manages IC, the first level has to do with knowledge and how a firm can maintain this knowledge and the relations the firm can maintain with those in its environment. The environment may be made up of shareholders, customers, suppliers among other members.

If the firm is to understand, do a proper analysis and make the right decisions in regard to its industry, it must understand the relations mentioned earlier which directly affect the firm's growth and profitability.

## 2.4.4 Customer Capital

A study done by Roos et al. (2017) that measured the firms growth in intellectual growth indicated that customer capital is made of the interaction between the company and its clients. The main element of CC is the knowledge found in the firm's relationships and marketing channels that a firm gets as it continues with its operations. This is the potential that a firm has due to its past intangibles. Orlikowski (2012) notes that frustrated executives

are not aware that they can use their own customers to gain knowledge. As explained by Kohli and Jaworski (2010) gaining an understanding of what a customer wants in a product is what differentiates a business from its rivals giving it a leadership position in the market.

As Bontis (2018) notes customer capital related to the knowledge found within the relationships that exist externally from the organization. The HC scope relates to the internal and external operations of the firm and the HC nodes respectively. Its measure is a function of its longevity as it becomes more valuable as time passes. Since it is external in nature customer capital is hard to measure and codify. A way that firms manifest their HC is provided by customers in form of market orientation. According to Hsiu-Yueh (2016), market orientation is intelligence on the existing and future needs of customers, the dissemination of this intelligence and the response of the firm on this intelligence.

Wong and Aspinwall (2014) explain that the close location of young enterprises to their customers makes it easier for them to get knowledge faster and directly compared to larger organizations. As noted by Kamath (2018) customer relationship capital adds value to the firm. Further, the argument by Johnson (2009) is that social capital should be made up of supplier, customer and shareholders relations. The interaction between the organizations and its external partners leads top positive growth and profitability for the firm in the long run. A definition of customer relationship capital is the established external organized relationships that are developed and maintained between the firm and its suppliers, customers and strategic partners. El-Bannany (2013) advised that customer relations intellectual capital should be used as a measure of capital as it is value adding and customer contribution, satisfaction and loyalty all add value to the firm.

Firms that hope to gain some competitiveness need to focus on new trends and changes in the market. This is not easy since globalization has seen businesses are now able to compete from

an international perspective, customer capital is made of external intangible firm assets. The external forces affect the firm and determine the position and value of the firm. Customers are the main determination factor of the firm position in the market (Smith & Saint-Onge, 2016).

This element is often regarded as a rational capital component as it is a characteristic in the relationships that the firm has with its external partners. The argument made by Kaplan and Norton (2016) is that a relationship exists between employee and customer satisfaction which improves the loyalty of the customer and the performance of the firm. A suggestion made by Narver et al. (2010) is that there is an association between the firms performance and organizational learning. According to Day (2010) customers are important since they directly affect the survival and performance of the firm in the long term. As noted by Bueno (2018) there are three components of relational capital namely customer satisfaction, quality and market reputation.

According to Standifird (2011) on transaction costs economics, a positive market reputation is seen to reduce the transaction costa that has to do with exchanges from customers. A good market reputation allows the customer to get firm information which reduces the time it takes for a customer to get hold of information, make it easier for a customer to understand as contract and acting as a guarantee for the products quality before the customer-firm transaction. The resource-based theory recommends that corporate reputation should be treated as a strategic asset. Therefore, as Hall (2013) recommends, managers should consider corporate reputation as an important asset. Further, Standifird (2011) indicates that corporate reputation improves cross selling, improves customer loyalty and makes it easier for customers to accept to pay higher amounts of money for the firm products. Lin king the two

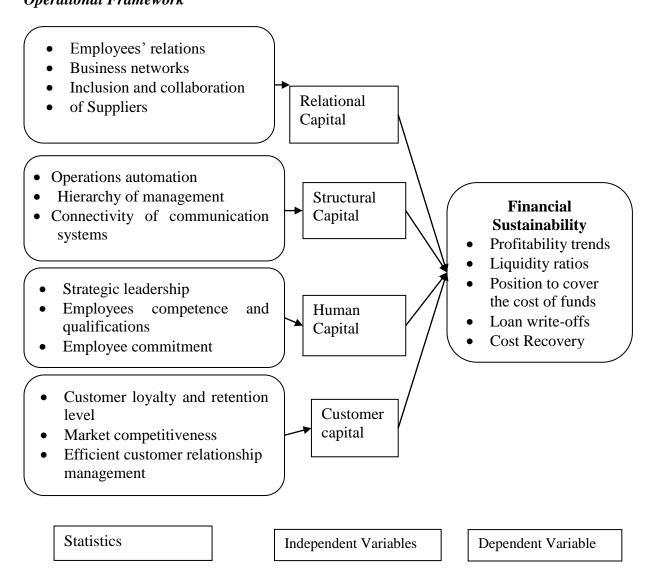
theoretical frameworks the high process of products of highly reputable firms translates to reduction of transaction coast before the transaction is completed.

After notable contributions by researchers in the intellectual capital topic, there was increased attention to the relationship a firm has with other partners other than its customers. This is why Stewart (2017) looks at partnerships and alliances, while Brooking (2016) looks at market assets such as branding, alliances, partnerships, product portfolio and the product image. However, the two studies still hold clients as a key firm asset. Roberts and Dowling (2012) note that reputation provides value for the firm as it differentiates products in the market and this makes the customers willing to pay high process for the reputable firm products.

## 2.5 Operationalization

Figure 2.3:

Operational Framework



## Source: Author (2019)

According to the literature reviewed all these resources impact on the financial performance of SACCOs. Social capital allows SACCOs to use the external resources from their environment and leads to the establishment of new markets. Social capital is also crucial for the entrepreneurship process to occur since the entrepreneur gets the information they need to start and grow their enterprise from the social network surrounding them.

Human capital helps the business grow in the future. Some of the reasons why enterprises fail have to do with poor management, lack of social skills and other factors such as lack of resources, improper business plans. Further, studies show that organizations with good relationships with their clients and government agencies have a better chance to grow their businesses. Further, SC was seen as an important resource that is needed for the proper functioning of human capital.

#### **CHAPTER THREE**

#### RESEARCH METHODOLOGY

#### 3.1 Introduction

This section gives the techniques used to conduct the research. Some of the sections included in this chapter include the research design, targeted population, sample size, sampling method, tool of data gathering, validity and reliability of the research tool, data collection methods and the methods used to analyze the gathered data

# 3.2 Research Design

A research design provides the means for the gathering and analysis of data in a bid to give importance to this data (Polit & Beck, 2013). Descriptive research design was used as it completely describes the situation under study and also minimizes the bias during data gathering. This ensures the data gathered is original and reliable and collected in the shortest time possible.

Thus, the research design chosen was ideal for this study as the researcher wanted to get comprehensive data by use of descriptions that helped explain the study variables. As per Bryman and Bell (2011) a descriptive study design provides data that describes the study phenomenon by the asking of queries that have to do with the sampled respondents attitudes and perceptions. A descriptive study is characterized by observing, counting, delinking and classifying of the subjects under study. The major goal of a descriptive study is to accurately portray the traits of the individuals, situations, group or how often the phenomenon under study happens.

# 3.3 Population of Study

The target population refers to the population from which data is sought. It is made up of individuals or elements that have similar traits where a few units are sampled out of the larger

population. As noted by Babbie (2010), a population is made up a set of elements, households or individuals that are well-defined and under investigation. The research targeted the management employees in the Kenyan SACCOs as they are involved in the day to day operations of the institutions.

Table 3.1:

Target Population

Category	Population	Percentage
Senior manager	167	9.6
Mid-level managers	484	27.9
Lower level managers	1086	62.5
Total	1737	100.0

Source: SACCOs (2019)

# 3.4 Sample Size and Sampling Technique

Sampling involves the choosing of a few individuals from the target population who provide the needed data to make reliable inferences of the total population under study. The sample size represents the target population and is a subset of the total population (Welman & Kruger, 2014). The researcher chose a sample size of 315 respondents from a population of 1737 participants who were sampled with the help of the below formulae by Nassiuma (2000).

$$n = N(cv^2)$$

$$Cv^2 + (N-1)e^2$$

Where n =sample size

N = population (1737)

Cv= coefficient of variation (0.6)

*e*= tolerance of desired level of confidence (0.05 at 95% confidence level)

$$n = \frac{1737 (0.6^2)}{0.6^2 + (1737-1) 0.05^2} = 314.96 (rounded to 315)$$

The methods used to choose the sample was stratified proportionate random sampling method. This unbiased sampling technique groups a heterogeneous population into homogeneous subsets and ensures every subset is represented as a sample is taken from each of the groups. The aim of this sampling method is to dully represent the entire population by use of a sample from each of the sub-assets (Polit & Beck, 2013).

Table 3.2:

Sampling Frame

Category	Population	Ratio	Sample
Senior managers	167	0.18	30
Mid-level managers	484	0.18	88
Lower level managers	1086	0.18	197
Total	1737		315

Source: Author (2019)

#### 3.5 Data Collection Instruments

The researcher gathered primary raw data from the Kenya SACCOs, management employees. As noted by Andre (2012) primary data is gathered as scientific data and used for the reason why it was collected. The data collection tool had close ended queries that conserved time and money and enabled easy analysis of data since they can be used immediately. The open ended queries were included to encourage the participants to give well-thought answers and responses without feeling coerced to answer the questions quickly (Sproul, 2011). The openended questions gave more insights on how the respondents felt about the questions and also

provided hidden decisions, motivations, feelings and interests of the respondents related to the questions.

## 3.5.1 Validity of Research Instruments

A pre-test was done to determine the study tools reliability and validity. According to Saunders et al. (2009), pilot test is a pretest data collection procedure that is meant to detect weaknesses and appropriateness of the design and instruments to be used in the study. The tool was given to a group of outlets with a view to determining their ability to answer the questions in the instrument. The pilot test was made up of 31 respondents since previous studies (Marshall & Rossman, 2016) indicate that the ideal sample size in a pre-test should have 20 to 100 respondents or be 10% of the target population. Content validity helped measure the extent to which each of the instruments provides the right content for that specific domain. The researcher sought the views and opinions of experts to get a view if the questions were suitable and representative and get corrections that needed to improve on these questions. The opinions of lecturers and supervisors of this study were sought to enable the research tool be valid. Any revisions required were made and changes made in line with the experts' opinions which improved the overall validity of the research tool.

# 3.5.2 Reliability of Research Instruments

The reliability of a research tool refers to the ability of the instrument to give similar results when used multiple times under similar circumstances. It defines how consistent a tool is when it comes to measuring what it intends to measure (Bell, 2010). The pilot test also helped deduce if the tool was reliable in line with the questions structure, wording and sequence. Reliability determines if the study tool provides consistent results after multiple trials (Neuman, 2010). A construct composite reliability value co-efficient (Cronbach alpha) of 0.7

or higher is seen as ideal for any study (Rousson et al., 2012). Cronbach's alpha was

calculated as below:

 $\alpha = k/k-1 \times [1-\sum (S^2)/\sum S^2 sum]$ 

Where:  $\alpha$ = Cronbach's alpha

k = Number of responses

 $\sum (S^2) = Variance of individual items summed up$ 

 $\sum S^2$ sum = Variance of summed up scores

3.6 Data collection procedure

The researcher sought an introductory letter from their university of study. This was given to

the relevant authority who gave permission for the gathering of data. The researcher obtained

permit from NACOSTI. Was also sought and submitted to the relevant authorities. The

researcher dropped and picked later the study instrument providing the respondents with

enough time to answer the questions. The researcher appointment with the SACCOs was two

days prior to the administration of the study tool which allowed the researcher to converse

with the respondents giving them reason for the study and clarifying any unclear information

before the questionnaire administration. The researcher was the one who dropped and picked

the study tool (Bryman & Bell, 2011).

3.7 Data Analysis and Presentation

The researcher referenced and coded the collected data for easier data entry. Data cleaning

which included the correction of errors was done before the analysis of quantitative data

using descriptive statistics such as averages, frequencies, standard deviations and

percentages. The presentation of the results was in tables, graphs and charts. Descriptive

statistics were helpful in data analysis as they presented the findings of the data analysis

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using few and easier to understand indices. Content analysis helped in analysis of data gathered from open-ended questions.

Inferential analysis by use of regression and correlation models helped determine the association between the study variables. The multiple regression model was essential for analysis of the data because the study had more than two independent variables and it helps determine how well the independent variables predict the dependent variable (Babbie, 2010). Using the four independent variables of the study, the researcher came up with the below multiple regression equation;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:- Y= financial sustainability

 $\beta_0$ =constant

 $\beta_1, \beta_2, \beta_3, \beta_4$  = Beta coefficients

 $X_1$ = Social capital /relational capital

 $X_2$ = structural capital

X<sub>3</sub>= human capital

 $X_4$ = customer capital

 $\varepsilon = \text{Error term}$ 

Variance Inflation Factor (VIF) was used to determine multicollinearity. Where no two independent variables are correlated, the value of VIFs is 1. In case the VIF value of one of the study variables is higher than 5, multicollinearity exists and the variable should be removed from the regression equation.

## 3.8 Ethical Considerations

A letter of introduction from the Kenya Methodist University- Nairobi campus helped in introducing the researcher to the relevant authorities related to the study. The researcher also made the respondents aware of the aim of the study and the expectations prior to commencing the study. Further, the research made it clear to the participants that the data provided by them would only be useful for research purposes. The researcher also maintained respect during the study for the respondents and participation into this research was by the respondents free will.

#### **CHAPTER FOUR**

## DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF FINDINGS

#### 4.1 Introduction

The outcomes from the study tool are presented in this study. The chapter starts by giving the responses rate, reliability analysis and the validity interpretation. The background data for the respondents is presented and thereafter the findings for the effect of intellectual capital disclosure on financial sustainability of Kenyan SACCOs. Finally, regression and Pearson moment correlation were conducted. The findings were presented in tables.

## **4.2 Response Rate**

315 questionnaires were given to the participants from which only 243 were returned. The response rate in this case was 77.1% which was good as explained by Sproul (2011) that a response rate that is higher than 50% is acceptable as it can be used to make inferences from the results. The rate of response is indicated in Table 4.1.

Table 4.1:

Response Rate

	No. of Informants	Percentage
Response	243	77.1
Non- response	72	22.9
Total	315	100.0

# 4.3 Reliability Analysis

Reliability of the study tool was sought by use of the questionnaire in a pre-test. The optimal coefficient of reliability is 0.7 and above (Song et al., 2014). A Cronbach alpha value of 0.7

or higher was considered acceptable for all constructs. The findings are displayed in Table 4.2.

Table 4.2:

Reliability Statistics

	Cronbach's Alpha	N of Items
Relational Capital	.825	3
Structural Capital	.724	3
Human Capital	.976	3
Customer capital	.768	3

From the results, human capital had a better reliability value of 0.976, followed by relational capital with a value of 0.825 then customer capital with a value of 0.768 while structural capital an Alpha value of 0.724 had the least reliability. The findings indicate the study tool was reliable with no revisions needed.

# **4.4 Validity Analysis**

The factors demonstrate sufficient construct validity, as their loadings were all above the recommended minimum threshold of 0.40 (Saunders et al., 2009). The findings are as indicated in Table 4.3.

Table 4.3:

Component Matrix

	Component
	1
Employees' relations	.976
Business networks	.885
Suppliers integration and collaborations	.838
Operations automation	.970
Hierarchy of management	.978
Integrated communication systems	.943
Strategic leadership	.974
Employees competence and qualifications	.928
Employee commitment	.608
Customer loyalty and retention level	.949
Market competitiveness	.940
Integrated customer relationship management	.939

# **4.5 Background Information**

The study determined the general characteristics of the participants so as to ascertain the eligibility of the respondents to participate in this study. It was also used to assess how reliable the data collected from the respondents would be. The respondents' background information sought in this study included gender, age brackets and their highest level of education. This information was presented in sections 4.5.1, 4.5.2 and 4.5.3.

# 4.5.1 Respondent's Gender

The researcher enquired on the respondent's gender. The outcome on this is as indicated in Table 4.4.

Table 4.4:

Gender of the Respondents

	Frequency	Percent
Female	118	48.6
Male	125	51.4
Total	243	100.0

According to the results female respondents were represented by 51.4% of the respondents while 48.6% were female. This implied that there was a good distribution which depicted a fair balance of gender. This also implied that the data collected was not gender-biased as the two genders were well represented and the information collected was reliable.

# 4.5.2 Respondents' Age Bracket

Table 4.5 displays the respondents' age bracket as requested by the researcher.

Table 4. 5:

Age Bracket of the Respondent

	Frequency	Percent
20-30 yrs.	30	12.3
31-40 yrs.	48	19.8
41-50 yrs.	76	31.3
51 - 60 yrs.	89	36.6
Total	243	100.0

From the Table, 36.6% of the respondents were aged between 51 - 60 yrs., 31.3% were aged between 41-50 yrs., 19.8% were aged between 31-40 yrs. while 12.3% were aged between 20-30 yrs. The implication of this was that the study included every significant age brackets and the data gathered represented a wide age scope which made it precise and dependable.

# 4.5.3 Respondents' Highest Level of Education

The researcher required the respondents to include their education level. The findings are as illustrated in Table 4.6.

Table 4. 6:

Highest Respondents' Education Level

Frequency	Percent
3	1.2
46	18.9
61	25.1
74	30.5
59	24.3
243	100.0
	3 46 61 74 59

From the findings, it was seen that 30.5% of the respondents had attained a Masters, 25.1% had attained a degree, 24.3% had attained a PhD, 18.9% had attained a diploma while 1.2% had attained a certificate. These results mean that the participants were learned which made it possible for them to clearly understand the subject under investigation and clearly give out their response effortlessly.

## 4.6 Relational Capital

The study sought to determine the effect of relational capital on financial sustainability of Kenyan SACCOs. The results were reported in Table 4.7.

Table 4.7:

Extent of the Effect of Relational Capital on Financial Sustainability of SACCOs in Kenya

	Frequency	Percent
Not at all	18	7.4
Low extent	30	12.3
Moderate extent	33	13.6
Great extent	73	30.0
Very great extent	89	36.6
Total	243	100.0

From the outcomes 36.6% of the respondents felt that relational capital affected Kenyan SACCOs financial sustainability very greatly, 30.0% indicated to greatly, 13.6% indicated moderately, 12.3% indicated to a lowly while 7.4% indicated not at all. This implies that relational capital affects Kenyan SACCOs financial sustainability very greatly. This is in line with Orlikowski (2012) who stated that loss of human capital can affect the memory of the firm as the employees leave with the knowledge they have which can negatively impact of firm performance.

The respondents also indicated the extent to which aspects of relational capital affect Kenyan SACCOs financial sustainability. The outcomes were provided in Table 4.8.

Table 4.8:

Extent of Effect of Relational Capital Aspects on Financial Sustainability of SACCOs in Kenya

	Mean	Std. Deviation
Employees' relations	3.41	1.38
Business networks	3.75	1.53
Suppliers integration and collaborations	4.16	1.29

The results revealed that the respondents indicated that supplier's integration and collaborations as shown by a mean of 4.16 affect Kenyan SACCOs financial sustainability to a very great extent. This corresponds with Roos et al. (2017) who points out that intellectual agility allows the employees to think outside the box and embrace creativity and innovativeness when it comes to problem solving.

The respondents also felt that business networks as shown by a mean of 3.75 affect financial sustainability of SACCOs in Kenya to a great extent while employees' relations as shown by a mean of 3.41 affect financial sustainability of SACCOs in Kenya to a moderate extent. This is in line with Hormiga et al. (2011) opinion that rational capital provides that organizations are not isolated but they are systems that are highly dependent on the relationship they have with others in their environment and these relations can be explained in different levels.

The respondents were further required to give their views on how the above aspects of relational capital affect Kenyan SACCOs financial sustainability. The respondents indicated that it leads to customer loyalty, goodwill and supplier relations; enhances competitive advantage; promotes relationship, value and attitudes that improve interactions among individuals and lead to positive social and economic growth in the community.

### 4.7 Structural Capital

The assessed the effect extent of structural capital on financial sustainability of Savings and Credit Cooperative Societies in Kenya. The respondents were requested to include the extent to which structural capital affects Kenyan SACCOs. Their results are provided in Table 4.9.

Table 4.9:

Extent of Effect of Structural Capital on Financial Sustainability of SACCOs in Kenya

	Frequency	Percent
Not at all	23	9.5
Low extent	32	13.2
Moderate extent	39	16.0
Great extent	71	29.2
Very great extent	78	32.1
Total	243	100.0

The results show that 32.1% of the respondents felt that structural capital affects Kenyan SACCOs financial sustainability very greatly, 29.2% indicated greatly, 16.0% indicated moderately, 13.2% indicated lowly while 9.5% indicated not at all. This implies that structural capital affects Kenyan SACCOs financial sustainability very greatly. This is in line with Roos et al. (2017) who noted that structural capital (SC) is a resource that helps the organization accomplishes its goals and includes assets such as processes, databases, knowledge applications, and information systems among other infrastructure.

The respondents were requited to specify the effect extent for aspects of structural capital on Kenyan SACCOs financial sustainability. This was provided in Table 4.10.

Table 4.10:

Extent of Effect of Structural Capital Aspects on Financial Sustainability of SACCOs in Kenya.

	Mean	Std. Deviation
Operations automation	3.54	1.343
Hierarchy of management	3.06	1.463
Integrated communication systems	3.60	1.373

From the responses it was revealed that the participants provided that integrated communication systems as illustrated by a mean score of 3.60 and operations automation as illustrated by a mean score of 3.54 affect Kenyan SACCOs financial sustainability to a great extent. In relation to the findings, Orlikowski (2012) notes that firms whose structural capital is strong have an organization culture that supports the employees' efforts to try out new creative things and also supports a learning culture where no one is punished for failing.

The respondents further noted that hierarchy of management as illustrated by a mean score of 3.06 affect Kenyan SACCOs financial sustainability to a moderate extent. These results conform to Roos et al. (2017) who explains that SC is what is left in the firm when workers retire to their home after a long day's work. It comprises of the firm value and processes showing the external, internal and future strategy renewal and development of the firm.

Further, the respondents were required to how the above aspects of structural capital affect Kenyan SACCOs financial sustainability. The respondents indicated that the overall intellectual capital is not used to its full potential and the firm will come up with a supportive firm culture to enable employees to learn, try out new things and to fail leads to the efficiency and effectiveness of the firm.

### 4.8 Human Capital

The research aimed at establishing the effect of human capital on financial sustainability of Kenyan SACCOs. Respondents suggested the extent to which human capital influences the financial sustainability of Kenyan SACCOs. The results were displayed on Table 4.11.

Table 4.11:

Extent of Human Capital Effect on Financial Sustainability of SACCOs in Kenya

	Frequency	Percent
Not at all	34	14.0
Low extent	29	11.9
Moderate extent	32	13.2
Great extent	75	30.9
Very great extent	73	30.0
Total	243	100.0

Most of the respondents 30.9% felt that human capital affects Kenyan SACCOs financial sustainability greatly, 30.0% indicated very greatly, 14.0% indicated not at all, 13.2% indicated moderately while 11.9% indicated lowly. The results imply that human capital greatly affects Kenyan SACCOs financial sustainability. The findings relate to Xu and Wang (2018) who stated that firms with a higher social capital have a competitive edge to their rivals.

The researcher also requested the participants to provide the extent to which the aspects of human capital affect Kenyan SACCOs financial sustainability. Table 4.12 shows the responses.

Table 4.12:

Extent of Effect of Human Capital Aspects on Financial Sustainability of SACCOs in Kenya

	Mean	Std. Deviation
Strategic leadership	3.38	1.393
Employees competence and qualifications	3.61	1.471
Employee commitment	3.39	1.493

The results show that the respondents had indicated that employee's competence and qualifications as shown by a mean of 3.61 affect Kenyan SACCOs financial sustainability to a great extent. This is as noted by Sharabati et al. (2010) that social capital is the glue that keeps the society intact. It is made up of connections among people that are founded on confidence and networking.

The respondents also revealed that employee commitment as represented by a mean score 3.39 and strategic leadership as shown by a mean of 3.38 affect Kenyan SACCOs financial sustainability to a moderate extent. This concurs with Roos et al. (2017) point that IC in the firm is provided by the workers by means of their intellectual agility, competence and attitude.

On the view of how the above human capital aspects affect Kenyan SACCOs financial sustainability, the respondents indicated that a firm with competent and qualified employees are more profitable and overvalued in the market; there is better use and monitoring of resources; adds value for the company and innovative products and processes.

### **4.9 Customer Capital**

The research sought to determine how customer capital affects Kenyan SACCOs financial sustainability. The respondents were requested to include the extent to which customer capital influenced Kenyan SACCOs financial sustainability. The findings are displayed on Table 4.13.

Table 4.13:

Extent of Customer Capital Influence on Financial Sustainability of SACCOs

Frequency	Percent
9	3.7
38	15.6
23	9.5
94	38.7
79	32.5
243	100.0
	9 38 23 94 79

The results prove that most of the participants as shown by 38.7% indicated that customer capital influenced Kenyan SACCOs financial sustainability greatly, 32.5% indicated very greatly, 15.6% indicated lowly, 9.5% indicated moderately while 3.7% indicated not at all. This implies that customer capital influences Kenyan SACCOs financial sustainability greatly. This is in line with Roos et al. (2017) who noted that customer capital is made of the interaction between the company and its clients and hence firms can use their own customers to gain knowledge.

The respondents were requested to include the extent to which customer capital influences Kenyan SACCOs financial sustainability. The findings are shown in Table 4.14.

Table 4.14:

Extent of Effect of Customer Capital Aspects on Financial Sustainability of Saccos in Kenya

	Mean	Std. Deviation
Customer loyalty and retention level	3.76	1.394
Market competitiveness	3.60	1.429
Integrated customer relationship management	3.82	1.333

As per the results, the respondents indicated that integrated customer relationship management from an average score of 3.82, customer loyalty and retention level as from the average score of 3.76 and market competitiveness from the average score of 3.60 influence Kenyan SACCOs financial sustainability greatly. The results agree with Kohli and Jaworski (2010) views that when a firm understands the customer's needs in regard to a product, the firm is able to gain a leadership market position compared to its rivals.

The respondents gave their opinions on how the given aspects of customer capital impact Kenyan SACCOs financial sustainability. The respondents indicated that it leads to more attention on the market and trend changes; helps to determine the firm market strength and position and improves customer satisfaction rates.

# **4.10 Financial Sustainability of SACCOs**

The study sought to establish the trend of the aspects of Kenyan SACCOs financial sustainability in the past 5 years. The results were provided in Table 4.15.

Table 4.15:

Trend of The Aspects of Financial Sustainability of SACCOs in Kenya

	Mean	Std. Deviation
Profitability trends	3.50	1.538
Liquidity ratios	3.46	1.530
Position to cover the cost of funds	3.26	1.562
Loan write-offs	3.44	1.526
Firm's capital base is wide enough to sustain operations	3.28	1.544

From the findings, it was established that profitability trends as illustrated by a mean of 3.50 and liquidity ratios as illustrated by a mean of 3.46 were indicated to have improved over the last five years. Loan write-offs as illustrated by a mean of 3.44, firm's capital base being wide enough to sustain operations as illustrated by a mean of 3.28 and position to cover the cost of funds as illustrated by a mean of 3.26 were indicated to have remained constant over the five years. This is in line with Mavridis (2014) who states that the need for IC has continued to grow especially in firms that want to be successful and also because today organizations are operating in knowledge-based environments that has seen the expansion of knowledge-intensive firms and also characterized by the increased need to create and use knowledge and data in all industries.

### **4.11 Inferential Statistics**

This section entails the findings on the Pearson Moment Correlation and the regression analysis.

# **4.11.1 Pearson Moment Correlation**

Pearson Moment Correlation is used to show the association between variables as provided in Table 4.16.

**Table 4. 16:** 

# **Correlations**

		Financial Sustainability of SACCOs	Relational Capital	Structural Capital	Human Capital	Customer Capital
Financial	Pearson	1				
Sustainability of	Correlation					
SACCOs	Sig. (2-tailed)					
Relational Capital	Pearson	.859**	1			
	Correlation					
	Sig. (2-tailed)	.000				
Structural Capital	Pearson	425**	183**	1		
	Correlation					
	Sig. (2-tailed)	.000	.004			
Human Capital	Pearson	228**	061	.615**	1	
	Correlation					
	Sig. (2-tailed)	.000	.345	.000		
Customer Capital	Pearson	.893**	.935**	327**	271**	1
	Correlation					
	Sig. (2-tailed)	.000	.000	.000	.000	

The correlation finding between the financial sustainability of SACCOs and relational capital was positive with a coefficient of 0.859 and a p-value of 0.000. This result is significant at  $\alpha$  =5% and incase of as rise in relational capital, financial sustainability of SACCOs will rise.

The correlation outcome between SC and financial sustainability of SACCOs was negative with a correlation coefficient of -0.425, a p-value of 0.000 which is significant at  $\alpha = 5\%$ . Yazdani and Yogoubi (2011) stated that SC is made up of values, relationships and attitudes that help in the management of people interactions and lead to improved social and economic growth in the community.

This indicates an unfavorable relationship between human capital and financial sustainability of SACCOs with a correlation coefficient of -0.228, and a p-value of 0.000. There is a positive association between customer capital and financial sustainability of SACCOs where the correlation coefficient is 0.893, and the value of p is 0.000. This favorable relationship shows that if these factors increase, the financial sustainability of SACCOs increases, while a negative relationship shows that when the mentioned elements are in place, the levels of financial sustainability of the SACCOs decreases.

# 4.11.2 Multiple Regression Analysis

Regression analysis helps determine the association existing between variables. It provides a models and methods to analyze variables and how they affect the association between the study variables. The regression results are as provided in Table 4.17, 4.18 and 4.19.

Table 4.17:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.916 <sup>a</sup>	.838	.836	.87124

Predictors: (Constant), Customer Capital, Human Capital, Structural Capital, Relational

### Capital

The adjusted R<sup>2</sup> from the Table 4.17 was found to be 0.836 an indication that 83.6% of the variations in financial sustainability of SACCOs in Kenya are explained by changes in human

capital, customer capital, structural capital and relational capital. The remaining 16.4% accounted for the effect of intellectual capital on financial sustainability of Kenyan SACCOs that are not covered in this study. This is in line with Low and MacMillan (2013) who stated that the assets included as part of intellectual capital are firm culture, reputation, the brand name, customer data and technology which are valuable assets that can be used by a firm to gain a competitive advantage against its rivals. IC is also inclusive of the non-physical assets of a firm such as the relationship between the firm and its stakeholders, operational strategies, firm capabilities and employee's skills.

Table 4.18: *ANOVA* 

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	937.417	4	234.354	308.741	.000 <sup>b</sup>
1	Residual	180.657	238	.759		
	Total	1118.074	242			

a. Dependent Variable: Financial Sustainability of SACCOs

b. Predictors: (Constant), Customer Capital, Human Capital, Structural Capital, Relational
 Capital

The outcome indicates that the regression model significantly predicted the impact of relational capital, structural capital, human capital and customer capital in financial sustainability of SACCOs in Kenya as shown by a p-value (0.000) <0.005 and F calculated at 5 percent level of significance (308.741)>F critical (value = 2.410). This conforms to Lonnavist (2014) who stated that firms that fail to disclose information of their IC may see their financial positions and competitiveness deteriorate in the long run.

Table 4.19:

Coefficients

Model	Unstandardized Coefficients		Standardized	t	Sig.
			Coefficients		
	В	Std. Error	Beta	•	
(Constant)	7.127	.712		10.014	.000
Relational Capital	.336	.106	.282	3.172	.002
Structural Capital	318	.044	244	-7.192	.000
Human Capital	.124	.049	.095	2.535	.012
Customer Capital	.713	.115	.576	6.208	.000

a. Dependent Variable: Financial Sustainability of SACCOs

The established model for the study was:

$$Y = 7.127 + 0.336X_1 - 0.318X_2 + 0.124X_3 + 0.713X_4$$

In line with the regression model when all factors are constant financial sustainability of SACCOs in Kenya will be 7.127. The results also provide that relational capital positively affects financial sustainability of SACCOs in Kenya as shown by r=0.336. This variable was significant since p=0.002 is less than 0.05 and hence the null hypothesis that, relational capital has no effect on financial sustainability of Kenyan SACCOs was rejected. These findings were in line with Hejazi et al. (2016) who noted that in line with relational capital individuals with strong relational ties will most likely embrace new media and ask their friends to do the same in comparison with individuals with weak ties.

The study further revealed that structural capital negatively affects financial sustainability of SACCOs in Kenya as shown by r=-0.318. This variable was significant since p=0.000 which is less than 0.05 and hence the null hypothesis that, structural capital does not affect financial

sustainability of Kenyan SACCOs was rejected. These findings were consistent with Walsh and Ungson (2011) who assert that structural capital acts as a support for human capital allowing for IC to function. It includes routines, firm structures, strategies, process manuals, databases, hardware and software and any other thing that is of value to the firm.

Moreover, the study showed that human capital positively affects financial sustainability of SACCOs in Kenya as shown by r=0.124. This variable was significant since p=0.012 was less than 0.05 and hence the null hypothesis that, human capital does not have an effect on financial sustainability of Kenyan SACCOs was rejected. These findings were consistent with Huff (2015) who affirms that human capital involves the intangible collective resources that are in the hands of groups or individuals in an organization, which includes knowledge, talents and experience needed to accomplish the organizational goals.

Finally, the study revealed that a customer capital positively affects financial sustainability of SACCOs in Kenya as shown by r=0.713. The variable had a significant value of p-value=0.000 which was lower than 0.05 and hence the null hypothesis that, customer capital does not affect the financial sustainability of Kenyan SACCOs was rejected. These findings were in line with Wong and Aspinwall (2014) who note that young businesses that are closely located to their clients are able to get knowledge in a quicker and direct manner compared to bigger firms.

Overall, customer capital had the greatest effect on financial sustainability of SACCOs in Kenya, followed by relational capital, then human capital while structural capital had the least effect on Kenyan SACCOs financial sustainability. Each of these variables was significant as they had a lower p-value than 0.05.

#### **CHAPTER FIVE**

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Introduction

This chapter discusses the results of data analysis, provides inferences and gives recommendations. The last two are made in line with the objectives of the research.

# **5.2 Summary of Findings**

The study investigated the impact relational capital had on financial sustainability of Savings and Credit Cooperative Societies in Kenya. Relational capital was found to affect financial sustainability of SACCOs in Kenya very greatly. The study found that supplier's integration and collaborations affect financial sustainability of SACCOs in Kenya to a very great extent. The study also found that business networks affect financial sustainability of SACCOs in Kenya to a great extent while employees' relations impact Kenyan SACCOs financial sustainability to a moderate extent.

The researcher determined the impact of structural capital on the financial sustainability of Kenyan SACCOs. The study found that structural capital affects financial sustainability of Kenyan SACCOs very greatly. The study established that integrated communication systems and operations automation affect the Kenya SACCOs financial sustainability to a great extent. The study also found that hierarchy of management affect financial sustainability of Kenyan SACCOs to a moderate extent.

The study sought to establish the effect of human capital on financial sustainability of Kenyan SACCOs. The study found that human capital greatly affects financial sustainability of Kenyan SACCOs. The study found that employee's competence and qualifications affect financial sustainability of Kenyan SACCOs to a great extent. The study also established that

employee commitment and strategic leadership affect financial sustainability of Kenyan SACCOs to a moderate extent.

The research sought to determine how customer capital affects financial sustainability of Kenyan SACCOs. The study found that customer capital influences financial sustainability of Kenyan SACCOs greatly. The study further found that integrated customer relationship management, customer loyalty and retention level and market competitiveness influence financial sustainability of Kenyan SACCOs to a great extent.

The research determined the growing trends related to financial sustainability of Kenyan SACCOs for the last 5 years. The study found that profitability trends and liquidity ratios had improved over the last five years. Loan write-offs, firm's capital base were wide enough to provide sustainable business position and to cover the cost of funds were found to have remained constant over the five years.

### **5.3 Conclusion**

The conclusion made was that there was a favorable association between the financial sustainability of SACCOs and relational capital. Relational capital was concluded to have a positive significance on the financial sustainability of SACCOs in Kenya. The study concluded that people with strong ties have frequent engagements and interactions, disclose their emotions and exchange knowledge. Those with weak ties do not exchange knowledge as often.

The study concluded that structural capital negatively affects financial sustainability of SACCOs in Kenya. The study also made the conclusion that the correlation results between structural capital and financial sustainability of SACCOs indicates that there is a negative impact. The study concluded that SC is made up of all storehouses of knowledge that are in

non-human form such as routines, processes, firm charts, strategies, databases and anything in the firm that has a higher value than its material value.

The study concluded that there is a negative association between human capital and financial sustainability of SACCOs. The study concluded that human capital positively affects financial sustainability of SACCOs. The study further deduced that human capital is vital for the firm as it provides for renewal of strategies and innovativeness. The element of HCX is made up of the intelligence of the firm members.

The study came to the conclusion that there is a positive association between customer capital and financial sustainability of SACCOs. The study also concluded that customer capital positively affects Kenyan SACCOs financial sustainability. The conclusion made was that customer capital is made up of knowledge found in the customer-firm relationships and in market channels that the firm develops as it continuous with its operations.

### **5.4 Recommendations**

There is need for firms to understand customer capital as an element of IC if solid relationships are to be created between the business and its clients. Thus managers as recommended by this study should aspire to understand their customer's priorities, likes, backgrounds and tastes if they are to serve them satisfactorily and also if they want to establish sustainable and long-terms business associations with them that would result to the SACCOs financial sustainability. The study also recommends that should there should be promotion of customer capital as it entails establishing reliable connections, loyalty, goodwill, closeness, linkages, relationships, and interactions between the organization and its clients, stakeholders and strategic partners and this would favorable affect the SACCOs financial sustainability. There is need for business owners and their managers to have close and direct contact with their clients taking their time to know them at a personal level if they

are to have a strong knowledge channel that can help them capture customer's data and improve the performance of their business.

SACCO employees should have the conceptual, technical and interpersonal competencies to effectively organize, plan and control the firm resources which will result to enhanced growth and performance for the firm.

Further, managers should act as a guide to workers towards the use of the SACCOs SC which is made up of routines, strategies, process manuals, structure of the firm, databases, software and hardware and anything of value to the firm. Well-developed structural capital assists the development of knowledge among workers.

SACCOs should take part in corporate social responsibility activities as a way of relational capital initiative which will create goodwill and thereby spurring the firm's performance. When SACCOs take 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 hence appeal to the communities who are then drawn as clients to the organization increasing and spurring the financial sustainability of the SACCOs.

SACCOs should strive to build their employees such that they are seen as the best in the market 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 SACCOs since they are assured that they are going to get the best service in the industry and therefore this will help to improve the financial sustainability of the SACCOs.

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 too spur the financial sustainability of the SACCOs

### 5.5 Suggestions for Further Research

The results indicate that IC components are vital for the firm. These components include customer capital, human capital, structural capital and relational capital in financial sustainability of Kenyan SACCOs. The past literature indicates an existing gap when it comes to research related to IC in other nations and markets, which will help to determine if the relationship between IC and financial sustainability can be generalized to other sectors and nations. Further, the study recommends that there should be a study with other components of intellectual capital such as leadership skills and entrepreneurial skills on financial sustainability.

#### REFERENCES

- Abeysekera, I. & Guthrie, J. (2014). Human capital reporting in a developing nation. *The British Accounting Review*, 36(3), 251-268. https://doi.org/10.1016/j.bar.2004.03.004
- Abeysekera, I. (2018). Motivations behind human capital disclosure in annual reports.

  \*Accounting Forum, 32(1), 16-29. https://doi.org/10.1016/j.accfor.2006.11.006
- Abhayawansa, S. & Abeysekera, I. (2018). An explanation of human capital disclosure from the resource-based perspective. *Journal of Human Resource Costing & Accounting*, 12(1), 51-64. https://doi.org/10.1108/14013380810872752
- Absar, M. M. N., Orazalin, N. S. & Mahmood, M. (2012). Human capital reporting in emerging economies: a comparative study on the banking sectors of Bangladesh and Kazakhstan. *Journal of Academy of Business and Economics*, 12(3), 28-35. DOI: 10.1504/IJLIC.2014.063899
- Adamides, E. D. (2015). Linking operations strategy to the corporate strategy process: a practice perspective. *Business Process Management Journal*, 21(2), 267-287. https://doi.org/10.1108/BPMJ-07-2013-0107
- André, R. (2012). Assessing the accountability of the benefit corporation: Will this new gray sector organization enhance corporate social responsibility? *Journal of Business Ethics*, 110(1), 133-150. https://doi.org/10.1007/s10551-012-1254-1
- Andriessen, D. (2014). Making sense of intellectual capital. Routledge.
- Anton, S. G. (2018). Leverage and firm growth: an empirical investigation of gazelles from emerging Europe. *International Entrepreneurship and Management Journal*, *5*(2), 1-24. DOI: 10.1007/s11365-018-0524-5

- Aramburu, N., Sáenz, J., & Blanco, C. E. (2015). Structural capital, innovation capability, and company performance in technology-based Colombian firms. *Cuadernos de Gestión*, 15(1), 39-60. DOI: 10.5295/cdg.130427na
- Ax, C. & Marton, J. (2018). Human capital disclosures and management practices. *Journal of Intellectual Capital*, 9(3), 433-455. DOI: 10.1108/14691930810892027
- Babbie, E. (2010). The Practice of Social Research-12. Wadsworth.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120. https://doi.org/10.1177%2F014920639101700108
- Beattie, V. & Smith, S. J. (2010). Human capital, value creation and disclosure. *Journal of Human Resource Costing & Accounting*, 14(4), 262-285. https://doi.org/10.1108/14013381011105957
- Beattie, V. & Smith, S. J. (2013). Value creation and business models: refocusing the intellectual capital debate. *The British Accounting Review*, 45(4), 243-254. https://doi.org/10.1016/j.bar.2013.06.001
- Becker, P. (1964). Rule of Fear: the life and times of Dingane, King of the Zulu. Longmans.
- Bell, J. (2010). Doing Your Research Project: A guide for first-time researchers. McGraw-Hill Education (UK).
- Berezzinets, I., Garanina, T., & Ilina, Y. (2016). Intellectual Capital of a Board of Directors and its Elements: Introduction to the Concepts. *Journal of Intellectual Capital*, 17(4), 632-653. https://doi.org/10.1108/JIC-01-2016-0003

- Bianchi, M. S., Corvino, A., Doni, F. & Rigolini, A. (2016). Relational capital disclosure, corporate reporting and company performance: Evidence from Europe. *Journal of Intellectual Capital*, 17(2), 186-217. https://doi.org/10.1108/JIC-07-2015-0065
- Bontis, N. (2018). Intellectual capital: an exploratory study that develops measures and models. *Management Decision*, 36(2), 63-76. https://doi.org/10.1108/00251749810204142
- Branco, M. C. & Rodrigues, L. L. (2016). Corporate social responsibility and resource-based perspectives. *Journal of business Ethics*, 69(2), 111-132. https://doi.org/10.1007/s10551-006-9071-z
- Brooking, A. (2016). *Intellectual capital*. Cengage Learning EMEA.
- Bryman, A. & Bell, E. (2011). Business Research Methods (3<sup>rd</sup> ed.). Oxford University Press
- Bueno, E. (2018). The role of social capital in today's economy: Empirical evidence and proposal of a new model of intellectual capital. *Journal of Intellectual Capital*, *5*(4), 556-574. https://doi.org/10.1108/14691930410567013
- Chang, A. & Tseng, C. (2015). Building customer capital through relationship marketing activities: The case of Taiwanese multilevel marketing companies. *Journal of Intellectual Capital*, 6(2), 253-266. https://doi.org/10.1108/14691930510592834
- Chin, W. W. & Frye, T. (2013). PLS-Graph Version 3.00, Build 1017. University of Houston.
- Coleman, J. S. (2010). Social capital in the creation of human capital. *American Journal of Sociology*, 94 (Suppl.), S95-S120. https://www.jstor.org/stable/2780243

- Connelly, B. L., Certo, S. T., Ireland, R. D. & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, 37(1), 39-67. https://doi.org/10.1177%2F0149206310388419
- Day, C. (2010). The accountant will have a central role in saving the planet... really? A reflection on 'green accounting and green eyeshades twenty years later'. *Critical Perspectives on Accounting*, 24(6), 448-458. DOI: 10.1016/j.cpa.2013.04.004
- Delerue-Vidot, H. (2011). Opportunism and unilateral commitment: the moderating effect of relational capital. *Management Decision*, 44(6), 737-751. https://doi.org/10.1108/00251740610673305
- Dowling, J. & Pfeffer, J. (1975). Organizational legitimacy: Social values and organizational behavior. *Pacific Sociological Review*, *18*(1), 122-136. DOI: 10.2307/1388226
- Edvinsson, L., & Malone, M. S. (2017). *Intellectual capital: Realizing your company's true* value by finding its hidden brainpower (1<sup>st</sup> ed.). HarperBusiness.
- Eesley, C. (2016). Institutional barriers to growth: Entrepreneurship, human capital and institutional change. *Organization Science*, 27(5), 1290-1306. https://doi.org/10.1287/orsc.2016.1077
- El-Bannany, M. (2013). A model to explain intellectual capital disclosure in UAE banks.

  \*International Journal of Learning and Intellectual Capital, 10(1), 35-51.

  https://ideas.repec.org/a/ids/ijlica/v10y2013i1p35-51.html
- Freeman, R. E. (1984). The politics of stakeholder theory: Some future directions. *Business ethics quarterly*, *I*(1), 409-421. DOI: 10.2307/3857340

- Gachara, S. (2010). Signaling intelligence, signaling theory, Project A, and excellent management history research. *Journal of Management History*, 21(2), 23-25. https://doi.org/10.1108/JMH-02-2015-0007
- Gogan, L. M., Duran, D. C. & Draghici, A. (2015). Structural capital: A proposed measurement model. *Procedia economics and finance*, 23(3), 1139-1146. https://doi.org/10.1016/S2212-5671(15)00503-1
- Government of Kenya (GOK) (2014). *National Human Resource for Health Strategic Plan* 2009-2012. Retrieved from http://www.health.go.ke/
- Gutierrez-Nieto, B., Fuertes-Callén, Y. & Serrano-Cinca, C. (2018). Internet reporting in microfinance institutions. *Online Information Review*, 32(3), 415-436. https://doi.org/10.1108/14684520810889709
- Hall, T. E. (2013). Culture, corporate governance and disclosure in Malaysian corporations. *Abacus*, 38(3), 317-349. https://doi.org/10.1111/1467-6281.00112
- Hans, K. G. (2012). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of accounting and economics*, 31(1-3), 405-440. https://doi.org/10.1016/S0165-4101(01)00018-0
- Hay, D. A., Ragab, N. S. & Hegazy, W. (2019). The Effect of Human Capital Disclosures on the Financial Performance in the Lebanese Commercial Banks. *Academy of Accounting and Financial Studies Journal*, 23(2), 1-18. https://www.abacademies.org/articles/the-effect-of-human-capital-disclosures-on-the-financial-performance-in-the-lebanese-commercial-banks-8103.html

- Hejazi, R., Ghanbari, M. & Alipour, M. (2016). Intellectual, human and structural capital effects on firm performance as measured by Tobin's Q. *Knowledge and Process Management*, 23(4), 259-273. 12. https://doi.org/10.1002/kpm.1529
- Hessels, J. & Terjesen, S. (2010). Resource dependency and institutional theory perspectives on direct and indirect export choices. *Small business economics*, 34(2), 203-220. https://doi.org/10.1007/s11187-008-9156-4
- Hormiga, E., Batista- Canino, R. M. & Sánchez- Medina, A. (2011). The Impact of Relational Capital on the Success of New Business Start- Ups. *Journal of Small Business Management*, 49(4), 617-638. DOI: 10.1111/j.1540-627X.2011.00339.x
- Hsiu-Yueh, D. N. (2016). The Determinants and Value Relevance of Risk Disclosure in the Indonesian Banking Sector [Doctoral dissertation, University of Gloucestershire]. http://eprints.glos.ac.uk/id/eprint/3429
- Hsu, J. W. (2016). Aging and strategic learning: The impact of spousal incentives on financial literacy. *Journal of Human Resources*, 51(4), 1036-1067. DOI: 10.3368/jhr.51.4.1014-6712r
- Huang, C. E. & Liu, C. H. (2018). Impacts of social capital and knowledge acquisition on service innovation: an integrated empirical analysis of the role of shared values.
  Journal of Hospitality Marketing & Management, 52(2), 1-20.
  https://pubmed.ncbi.nlm.nih.gov/28148971/
- Huff, H. (2015). Fundamental and ethics theories of corporate governance. *Middle Eastern Finance and Economics*, 4(4), 88-96. DOI: 10.1.1.320.6482

- Husin, N. M., Ahmad, N. & Sapingi, R. (2013). Intellectual capital: a focus on human capital reporting practices of top Malaysian listed companies. *The South East Asian Journal of Management*, 5(1), 51-72. https://doi.org/10.21002/seam.v5i1.1796
- Jahanshahi, A., Nawaser, K., & Brem, A. (2018). Corporate entrepreneurship strategy: an analysis of top management teams in SMEs. *Baltic Journal of Management*, *13*(4), 528-543. https://doi.org/10.1108/BJM-12-2017-0397
- Jamal, A. A. M. (2018). Intellectual Capital and its Reflection on Quality of Productivity.
  International Journal of Business and Management, 14(12), 67.
  DOI:10.5539/ijbm.v14n12p67
- Jindal, S. & Kumar, M. (2012). The determinants of HC disclosures of Indian firms. *Journal of Intellectual Capital*, *13*(2), 221-247. https://doi.org/10.1108/14691931211225049
- Johnson, A. (2009). The effects of customer capital on customer response speed and innovativeness: the mediating role of marketing capability. *International Journal of Innovation Management*, 12(4), 85-89. https://ideas.repec.org/a/wsi/ijimxx/v23y2019i06ns1363919619500580.html
- Jourjsen, J. M. (2010). Overcoming Scarcities Through Innovation: What Do Technologists

  Do When Faced With Constraints? *Ecological economics*, 145(2), 115-125.

  https://doi.org/10.1016/j.ecolecon.2017.08.023
- Kamal, M. H. M., Mat, R. C., Rahim, N. A., Husin, N., & Ismail, I. (2012). Intellectual capital and firm performance of commercial banks in Malaysia. *Asian Economic and Financial Review*, 2(4), 577. https://ideas.repec.org/a/asi/aeafrj/2012p577-590.html

- Kamath, G. B. (2018). An investigation into intellectual capital efficiency and export performance of firms in India. *International Journal of Learning and Intellectual Capital*, 14(1), 47-75. DOI: 10.1504/IJLIC.2017.080641
- Kaplan, R. S. & Norton, D. P. (2016). Transforming the balanced scorecard from performance measurement to strategic management: Part I. *Accounting Horizons*, 15(1), 87-104. DOI: 10.2308/acch.2001.15.2.147
- Kariuki, A., K'Obonyo, P., & Ogutu, M. (2015). Intellectual Capital and Performance of Firms Listed on Nairobi Securities Exchange. *DBA Africa Management Review*, *5*(2), 118-142. DOI: 10.17265/2328-2185/2017.06.004
- Kenya Union of Savings and Credit Co-operative (2009). *The Level of Disclosure in Annual Reports of Banks*. http://www.kusco.com/
- Khan, H. U. Z. & Khan, R. (2010). Human capital disclosure practices of top Bangladeshi companies. *Journal of Human Resource Costing & Accounting*, 14(4), 329-349. DOI: 10.1108/14013381011105984
- Khrawish, H. A. (2011). Determinants of commercial banks performance: Evidence from Jordan. *International Research Journal of Finance and Economics*, 81(1), 148-159. https://www.researchgate.net/publication/267230689\_Determinants\_of\_Commercial\_Banks\_Performance\_Evidence\_from\_Jordan
- 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 Altiman Z Score Model of Corporate Bankruptcy. *International*

- Journal of Business and Social Science, 5(9), 40-2. http://ijbssnet.com/journals/Vol\_5\_No\_9\_1\_August\_2014/4.pdf
- Kohli, A. K. & Jaworski, B. J. (2010). Market orientation: the construct, research propositions, and managerial implications. *Journal of Marketing*, *54*(2), 1-18. DOI: 10.2307/1251866
- Lafuente, E. & Rabetino, R. (2011). Human capital and growth in Romanian small firms.

  \*\*Journal of Small Business and Enterprise Development, 18(1), 74-96.\*\*

  https://doi.org/10.1108/14626001111106442
- Laine, M. (2011). Some Theories for Social Accounting? A Review Essay and a Tentative Pedagogic Categorization of Theoretisations around Social Accounting. *Social and Environmental Accountability Journal*, 31(1), 100–101. https://doi.org/10.1080/0969160X.2011.556421
- Lightstone, K. & Driscoll, C. (2018). Disclosing elements of disclosure: a test of legitimacy theory and company ethics. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 25(1), 7-21. https://onlinelibrary.wiley.com/doi/pdf/10.1002/cjas.50
- Ling-Ching C.A. & Wang, W. Y. (2012). The causal relationships between aspects of customer capital. *Industrial Management & Data Systems*, 112(6), 848-865. https://doi.org/10.1108/02635571211238482
- Lokuwaduge, C. S. D. S. & Heenetigala, K. (2017). Integrating environmental, social and governance (ESG) disclosure for a sustainable development: an Australian study.

  \*\*Business Strategy and the Environment, 26(4), 438-450.\*\*

  https://doi.org/10.1002/bse.1927

- Lonnavist, H. (2014). Human capital theory, the power of transnational companies and a political response in relation to education and economic development. *Compare: A Journal of Comparative and International Education*, 45(3), 490-493. https://doi.org/10.1080/03057925.2015.1027515
- Low, S. & MacMillan, A. (2013). Corporate governance and operational risk voluntary disclosure: Evidence from Islamic banks. *Research in International Business and Finance*, 46(2), 43-54. https://doi.org/10.1016/j.ribaf.2017.09.006
- Luethge, D. & Guohong Han, H. (2012). Assessing corporate social and financial performance in China. *Social Responsibility Journal*, 8(3), 389-403. https://doi.org/10.1108/17471111211247965
- Maingi, J. (2015). Human capital theory in the framework of organization theory. *Strategic Management*, 22(3), 29-35. http://scindeks-clanci.ceon.rs/data/pdf/1821-3448/2017/1821-34481703029N.pdf
- Mamun, V. (2009). Strategic posture, financial performance and environmental disclosure:

  An empirical test of legitimacy theory. *Accounting, Auditing & Accountability Journal*, 19(4), 540-563. https://doi.org/10.1108/09513570610679128
- Marshall, C., & Rossman, G. B. (2016). Designing qualitative research (6<sup>th</sup> ed.). SAGE.
- Mavridis, D. G. (2014). The intellectual capital performance of the Japanese banking sector.

  \*\*Journal of Intellectual Capital, 5(1), 92-115.\*\*

  https://doi.org/10.1108/14691930410512941

- Muhammad, N. M. N. & Ismail, M. K. A. (2009). Intellectual capital efficiency and firm's performance: Study on Malaysian financial sectors. *International journal of economics and finance*, 1(2), 206-212. DOI: 10.5539/ijef.v1n2p206
- Mura, M., Radaelli, G., Spiller, N., Lettieri, E. & Longo, M. (2014). The effect of social capital on exploration and exploitation: modelling the moderating effect of environmental dynamism. *Journal of Intellectual Capital*, 15(3), 430-450. https://doi.org/10.1108/JIC-05-2014-0057
- Narver, J. C., Slater, S. F. & MacLachlan, D. L. (2010). *Total market orientation, business performance, and innovation* (No. 116). Marketing Science Institute.
- Nassiuma, D. K. (2000). Survey Sampling Theory and Methods. University of Nairobi Press.
- Nerdrum, L. & Erikson, T. (2011). Intellectual capital: A human capital perspective. *Journal of Intellectual Capital*, 2(2), 127-135. https://doi.org/10.1108/14691930110385919
- Neuman, W. L. (2010). Social research methods: Qualitative and quantitative approaches (6th ed.). Pearson.
- Nkuru, F. N. (2015). Factors affecting growth of SACCOS within the agricultural sector in Kenya: A case of Meru farmers SACCOS. *Global Journal of Commerce & Management Perspective*, 4(1), 34-45. https://www.longdom.org/articles/factors-affecting-growth-of-saccos-within-the-agricultural-sector-in-kenya-a-case-of-meru-farmers-saccos.pdf
- Noe, R. A., Hollenbeck, J. R., Gerhart, B. & Wright, P. M. (2017). *Human resource management: Gaining a competitive advantage*. McGraw-Hill Education.

- Nunes, B. M., Annansingh, F., Eaglestone, B., & Wakefield, R. (2016). Knowledge management issues in knowledge-intensive SMEs. *Journal of Documentation*, 62(1), 101-119. DOI: 10.1108/00220410610642075
- Ogbodo, E. C., Ezeugwunne, I. P., Analike, R. A., Ezeodili, V. K., Egbe, J. U., Obiorah, M. O., Aguta, U. E., Madukwe, D. U. P., Nwanko, J. C., Onah, C. E., Ugwu, M. C., & Meludu, S. C. (2017). Effect of cucumber consumption on plasma creatinine, urea, uric acid and glucose level in apparently healthy students of college of health sciences, Nnamdi Azikiwe university, Nnewi campus, Anambra state, Nigeria. *International Journal of Basic, Applied and Innovative Research*, 6(1), 2–9. https://www.ajol.info/index.php/ijbair/article/view/174918/164304
- Okelo, S., Raburu, T. & Sirma, M. (2015). Analysis of annual report disclosure quality for listed companies in transition countries. *Economic research-Ekonomska istraživanja*, 30(1), 721-73. http://dx.doi.org/10.1080/1331677X.2017.1311231
- Omran, M. A. & Ramdhony, D. (2015). Theoretical perspectives on corporate social responsibility disclosure: a critical review. *International Journal of Accounting and Financial Reporting*, *5*(2), 38-55. https://doi.org/10.5296/ijafr.v5i2.8035
- Ondieki, D. O., Paul, S. N. & Mbura, L. K. (2017). Influence of strategic management practices on productivity of state corporations in Kenya: A case of Kenya Civil Aviation Authority. *International Academic Journal of Human Resource and Business Administration*, 2(3), 556-579. http://iajournals.org/articles/iajhrba\_v2\_i3\_556\_579.pdf
- Ongore, V. O. & Kusa, G. B. (2013). Determinants of financial performance of commercial banks in Kenya. *International journal of economics and financial issues*, 3(1), 237-

252.

https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.827.1383&rep=rep1&type =pdf

- Onuche, S. E. V. & Jones, E. (2019). Effect of Intellectual Capital Costs on Financial Performance of Listed Commercial Banks in Nigeria. *International Journal of Economics and Business Management*, 5(2), 1-16. https://www.iiardpub.org/get/IJEBM/VOL.%205%20NO.%202%202019/EFFECT%2 0OF%20INTELLECTUAL.pdf
- Onyekwelu, U. L., Okoh, J. I., & Iyidiobi, F. C. (2017). Effect of intellectual capital on financial performance of banks in Nigeria. *European journal of accounting, auditing and finance research*, 5(2), 28-57. http://www.eajournals.org/wp-content/uploads/Effect-of-Intellectual-Capital-on-Financial-Performance-of-Banks-in-Nigeria.pdf
- Orens, R., Aerts, W. & Lybaert, N. (2013). Customer value disclosure and cost of equity capital. Review of Accounting and Finance, 12(2), 130-147. https://doi.org/10.1108/14757701311327696
- Orlikowski, W. J. (2012). Knowing in practice: Enacting a collective capability in distributed organizing. *Organization Science*, *13*(3), 249-273. https://doi.org/10.1287/orsc.13.3.249.2776
- Ortiz, B., Donate, M. J. & Guadamillas, F. (2016). Relational and cognitive social capital:

  Their influence on strategies of external knowledge acquisition. *Procedia Computer Science*, 99(1), 91-100. https://doi.org/10.1016/j.procs.2016.09.103

- Otor, E. O. (2015). The influence of intellectual capital on the performance of small and medium enterprises a case of Mombasa county Kenya [Unpublished Doctoral dissertation]. University of Nairobi.
- Polit, D. F., & Beck, C. T. (2013). Study guide for essentials of nursing research: appraising evidence for nursing practice. Lippincott Williams & Wilkins.
- Portes, A. (2018). La transparence numérique: rôle du client et conséquences sur la relation à la marque [Doctoral dissertation, The University of Montpellier]. https://tel.archives-ouvertes.fr/tel-01914944/document
- Prashantham, S. & Dhanaraj, C. (2010). The dynamic influence of social capital on the international growth of new ventures. *Journal of Management Studies*, 47(6), 967-994. DOI: 10.1111/j.1467-6486.2009.00904.x
- Rahim, M. A. (2017). Managing conflict in organizations. Routledge.
- Rashid, A. (2013). Corporate intellectual capital reporting in Bangladesh. *International Journal of Learning and Intellectual Capital*, 10(2), 107-121. DOI: 10.1504/IJLIC.2013.052909
- Roberts, P. W. & Dowling, G. R. (2012). Corporate reputation and sustained superior financial performance. *Strategic management journal*, 23(12), 1077-1093. https://doi.org/10.1002/smj.274
- Roos, J., Edvinsson, L. & Dragonetti, N. C. (2017). *Intellectual capital: Navigating the new business landscape*. Springer.

- Rousson, V., Gasser, T. & Seifert, B. (2012). Assessing intrarater, interrater and test–retest reliability of continuous measurements. *Statistics in medicine*, 21(22), 3431-3446. DOI: 10.1002/sim.1253
- Sacco Society Regulatory Authority. (2018). List of Sacco Societies Licensed to undertake deposit-taking Sacco business in Kenya for the financial year ending 2018. https://knecportal.co/list-of-sacco-societies-licenced-to-undertake-deposit-taking-sacco-business-in-kenya-for-the-financial-year-ending-december-2018
- Saunders, M., Lewis, P. & Thornhill, A. (2009). Research methods for business students.

  Financial Times/Prentice Hall.
- Schultz, T. W. (1961). Investment in human capital. *The American Economic Review*, 51(1), 1-17. https://www.jstor.org/stable/1818907
- Sharabati, A. A., Naji Jawad, S. & Bontis, N. (2010). Intellectual capital and business performance in the pharmaceutical sector of Jordan. *Management Decision*, 48(1), 105-131. https://doi.org/10.1108/00251741011014481
- Smith, P. A. & Saint-Onge, H. (2016). The evolutionary organization: avoiding a Titanic fate.

  The Learning Organization, 3(4), 4-21. https://doi.org/10.1108/09696479610148109
- Sobhani, A. A. B. (2011). Earnings management and corporate governance: The Ghanaian experience. *International Journal of Management Practice*, 7(4), 309-323. DOI: 10.1504/IJMP.2014.065229
- Sproul, L. (2011). Country effects on European mandatory disclosure of financial key performance indicators. *Financial Reporting*, *3*(1), 13-56. DOI: 10.3280/FR2011-001004

- Standifird, R. E. (2011). Stakeholder theory. Cambridge University Press.
- Stevenson, W. B. & Radin, R. F. (2009). Social capital and social influence on the board of directors. *Journal of Management Studies*, 46(1), 16-44. DOI: 10.1111/j.1467-6486.2008.00800.x
- Stewart, A. (2017). Securitized banking and the run on report. *Journal of Financial Economics*, 104(3), 425-451. DOI: 10.1016/j.jfineco.2011.03.016
- Szreter, L. (2012). The role of customer capital for SME sustainable development. University of Nairobi.
- Tirimba, M. (2013). Motivations for an organization within a developing country to report social responsibility information: evidence from Bangladesh. *Accounting, Auditing & Accountability Journal*, 21(6), 850-874. https://doi.org/10.1108/09513570810893272
- Van-Eeden, C. M. (2014). *The importance of effective strategic leadership in organizations* [Unpublished Doctoral dissertation]. University of Johannesburg.
- Venturini, W. T. & Benito, Ó. G. (2015). CRM software success: a proposed performance measurement scale. *Journal of Knowledge Management*, 19(4), 856-875. https://doi.org/10.1108/JKM-10-2014-0401
- Wagiciengo, M. M. & Belal, A. R. (2012). Intellectual capital disclosures by South African companies: A longitudinal investigation. *Advances in Accounting*, 28(1), 111-119. https://doi.org/10.1016/j.adiac.2012.03.004
- Waititu, A., Aduda, J., Gichira, R. & Ngari, J. M. (2013). An Analysis of the Relationship between Intellectual Capital Accounting and Business Performance of

- Pharmaceutical Companies in Kenya [Unpublished Master's Thesis]. University of Nairobi.
- Walsh, J. P. & Ungson, G. R. (2011). Organizational memory. *Academy of Management Review*, 16(1), 57-91. DOI: 10.2307/258607
- Welman, C., & Kruger, F. (2014). Research methodology for the business & administrative sciences. Oxford University Press.
- Wong, K. Y. & Aspinwall, E. (2014). Knowledge management implementation frameworks:

  a review. *Knowledge and Process Management*, 11(2), 93-104. 
  https://doi.org/10.1002/kpm.193
- Woolcock, M. (2018). Social capital and economic development: Toward a theoretical synthesis and policy framework. *Theory and Society*, 27(2), 151-208. https://www.jstor.org/stable/657866
- World Council of Credit Unions. (2013). Disponível em. <a href="http://www.woccu.org/">http://www.woccu.org/</a>
- Xu, J. & Wang, B. (2018). Intellectual capital, financial performance and companies' sustainable growth: Evidence from the Korean manufacturing industry. *Sustainability*, 10(12), 4651. https://doi.org/10.3390/su10124651
- 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. https://doi.org/10.1080/09585190903142415

- Yazdani, B.O. & Yaghoubi, N.M. (2011). The Relationship between Social Capital and Organizational Justice. European Journal of Economics, Finance and Administrative Sciences, 1(30), 23-46. http://revistaespacios.com/a18v39n08/a18v39n08p27.pdf
- Yıldız, S., Meydan, C. & Güner, M. (2014). Measurement of intellectual capital components through activity reports of companies. *Procedia-Social and Behavioral Sciences*, 109(2), 614-621. DOI: 10.1016/j.sbspro.2013.12.516
- Zdolsek, D., & Kolar, I. (2013). Management disclosure practices for disaggregated (financial) information in Slovenian unlisted companies. *Journal of East European Management Studies*, 18(2), 232–263. DOI: 10.5771/0949-6181-2013-2-264

**APPENDICES** 

**Appendix I: Letter of Transmittal** 

ABDIRIZAK FARAH

Nairobi County

Dear Sir/ Madam,

**RE: ACADEMIC RESEARCH THESIS** 

I am a Master of Business Administration student at Kenya Methodist University. I wish to

conduct a research entitled EFFECT OF INTELLECTUAL CAPITAL ON FINANCIAL

SUSTAINABILITY OF SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN

**KENYA.** A questionnaire has been designed and will be used to gather relevant information

to address the research objective of the study. The purpose of writing to you is to kindly

request you to grant me permission to collect information on this important subject from your

organization.

Please note that the study will be conducted as an academic research and the information

provided will be treated in strict confidence. Strict ethical principles will be observed to

ensure confidentiality and the study outcomes and reports will not include reference to any

individuals.

Your acceptance will be highly appreciated.

Yours faithfully,

Abdirizak Ali Farah

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#### **Appendix II: Research Questionnaire**

This questionnaire is to collect data for purely academic purposes. The study seeks to investigate the EFFECT OF INTELLECTUAL CAPITAL ON FINANCIAL SUSTAINABILITY OF SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN **KENYA**. All information will be treated with strict confidence. Do not put any name or identification on this questionnaire. Answer all questions as indicated by either filling in the blank or ticking the option that applies. **SECTION A:** Background Information (Please tick ( $\sqrt{}$ ) appropriate answer) 1) Please indicate your gender: Female [] Male [] 2) Please Indicate your age bracket 20-30 yrs. [] 31-40 yrs. [] 41-50 yrs. [ ] 51 – 60 [ ] 3) State your highest level of education Diploma [ ] Degree [ ] Certificate [] Masters [ ] PhD [] Others (Specify) ------**Relational Capital** 4) To what extent does relational capital affect financial sustainability of Savings and Credit Cooperative Societies in Kenya? Not at all [ ] Low extent [ ] Moderate extent

[ ]

Great extent

Very great ex	tent [ ]				
5) The following aspects o	f relational c	apital affect	financial susta	inability of S	Savings and
Credit Cooperative Socie	eties in Keny	a. Please indi	icate the exten	t to which the	e aspects of
relational capital affect	financial s	ustainability	of Savings a	and Credit (	Cooperative
Societies in Kenya?					
	Very great	Great	Moderate	Low	Not at all
	extent	extent	extent	extent	
Employees' relations					
Business networks					
Inclusion and					
collaborations of					
suppliers					
Structural Capital					
To what extent does structu	ıral capital a	ffect financia	al sustainabilit	y of Savings	and Credit
Cooperative Societies in Ker	ıya?				
Not at all	[ ]	Low exter	nt [	]	
Moderate exte	ent []	Great exte	ent [	]	
Very great ex	tent []				
7) The following aspects of	f Structural C	Capital affect	financial susta	ninability of S	Savings and
Credit Cooperative Socie	eties in Keny	a. Please indi	icate the exten	t to which the	e aspects of
Structural Capital affect	t financial	sustainability	of Savings	and Credit (	Cooperative
Societies in Kenya?					

6)

	Very great	Great	Moderate	Low	Not at
	extent	extent	extent	extent	all
Computerized system					
Hierarchy of management					
Connectivity of communication					
systems					

# **Human Capital**

8)	To what ext	tent does	human	capital	affect	financial	sustainability	of	Savings	and	Credit
	Cooperative	Societie	s in Ken	ya?							

Not at all	[ ]	Low extent	[ ]
Moderate extent	[ ]	Great extent	[ ]
Very great extent	[ ]		

9) The following aspects of human capital affect financial sustainability of Savings and Credit Cooperative Societies in Kenya. Please indicate the extent to which the aspects of human capital affect financial sustainability of Savings and Credit Cooperative Societies in Kenya?

	Very great	Great	Moderate	Low	Not at all
	extent	extent	extent	extent	
Strategic leadership					
Employees competence and					
qualifications					
Employee commitment					

# **Customer capital**

10) To what extent does customer	capital	influence financial	sustainability of	Savings	and
Credit Cooperative Societies in	Kenya?				
Not at all	[ ]	Low extent	[ ]		
Moderate extent	[ ]	Great extent	[ ]		
Very great extent	[ ]				
11) The following aspects of custo	mer cap	oital affect financial	sustainability of	Savings	and

11) The following aspects of customer capital affect financial sustainability of Savings and Credit Cooperative Societies in Kenya. Please indicate the extent to which the aspects of customer capital affect financial sustainability of Savings and Credit Cooperative Societies in Kenya?

	Very great extent	Great extent	Moderate extent	Low extent	Not at all
Customer loyalty and retention level					
Market competitiveness					
Efficient customer relationship management					

# **Financial Sustainability of SACCOs**

16) What is the trend of the following aspects of financial sustainability of Savings and Credit Cooperative Societies in Kenya for the last 5 years? Where, 5 = greatly improved, 4= improved, 3= constant, 2= decreased, 1 = greatly decreased

	1	2	3	4	5
Profitability trends					
Liquidity ratios					
Position to cover the cost of funds					
Loan write-offs					
Firm's capital base is wide enough to sustain operations					

### **THANK YOU**

## Appendix III: Licensed Sacco Societies for Period Ending 31st December, 2018

- 2NK SACCO SOCIETY LTD P.O BOX 12196 10109, NYERI.
- AFYA SACCO SOCIETY LTD P.O.BOX 11607 00400, NAIROBI.
- 3. AGRO-CHEM SACCO SOCIETY LTD P.O BOX 94 40107, MUHORONI.
- 4. AINABKOI SACCO SOCIETY LTD P.O. BOX 120 30101, AINABKOI
- 5. ALL CHURCHES SACCO SOCIETY LTD P.O BOX 6957 01000, THIKA.
- 6. AIRPORTS SACCO SOCIETY LTD P.O. BOX 19001 00501, NAIROBI
- AMICA SACCO SOCIETY LTD P.O.BOX 816 10200,
   MURANG'A.

- 8. ARDHI SACCO SOCIETY LTD P.O. BOX 28782 00200, NAIROBI.
- 9. ASILI SACCO SOCIETY LTD P.O.BOX 49064 00100, NAIROBI.
- AZIMA SACCO SOCIETY LTD P.O.BOX 1124 01000,
   THIKA.
- 11. BANDARI SACCO SOCIETY LTD P.O.BOX 95011 80104, MOMBASA.
- 12. BARAKA SACCO SOCIETY LTD P.O.BOX 1548 10101, KARATINA.
- 13. BARATON UNIVERSITY SACCO SOCIETY LTD P.O
  BOX 2500 30100, ELDORET.
- 14. BIASHARA SACCO SOCIETY LTD P.O.BOX 1895 10100, NYERI.

- 15. BIASHARA TOSHA SACCO SOCIETY LTD P.O BOX 189 60101, MANYATTA.
- BI-HIGH SACCO SOCIETY LTD P.O.BOX 90 60500,
   MARSABIT.
- 17. BINGWA SACCO SOCIETY LTD P.O.BOX 434 10300, KERUGOYA.
- 18. BORESHA SACCO SOCIETY LTD P.O.BOX 80 20103, ELDAMA RAVINE.
- 19. CAPITAL SACCO SOCIETY LTD P.O BOX 1479 60200, MERU.
- 20. CENTENARY SACCO SOCIETY LTD P.O.BOX 1207 60200, MERU.
- 21. CHAI SACCO SOCIETY LTD P.O.BOX 278 00200, NAIROBI.
- 22. CHUNA SACCO SOCIETY LTD P.O.BOX 30197 00100, NAIROBI.

- 23. COMOCO SACCO SOCIETY LTD P.O. BOX 30135 00100, NAIROBI
- 24. COSMOPOLITAN SACCO SOCIETY LTD P.O.BOX 1931 20100, NAKURU.
- 25. COUNTY SACCO SOCIETY LTD P.O.BOX 21 60103, RUNYENJES.
- 26. DAIMA SACCO SOCIETY LTD P.O.BOX 2032 60100, EMBU.
- 27. DHABITI SACCO SOCIETY LTD P.O.BOX 353 60600, MAUA.
- 28. DIMKES SACCO SOCIETY LTD P.O.BOX 886 00900, KIAMBU.
- 29. DUMISHA SACCO SOCIETY LTD P.O BOX 84 20600, MARARAL.
- 30. ECO-PILLAR SACCO SOCIETY LTD P.O. BOX 48 30600, KAPENGURIA

- 31. EGERTON SACCO SOCIETY LTD P.O.BOX 178 20115, EGERTON.
- 32. ELGON TEACHERS SACCO SOCIETY LTD P.O BOX 27 50203, KAPSOKWONY.
- 33. ELIMU SACCO SOCIETY LTD P.O BOX 10073 00100, NAIROBI.
- 34. ENEA SACCO SOCIETY LTD P.O.BOX 1836 10101, KARATINA.
- 35. FARIDI SACCO SOCIETY LTD P.O. BOX 448 50400, BUSIA.
- 36. FARIJI SACCO SOCIETY LTD P.O.BOX 589 00216, GITHUNGURI.
- 37. FORTUNE SACCO SOCIETY LTD P.O.BOX 559 10300, KERUGOYA.
- 38. FUNDILIMA SACCO SOCIETY LTD P.O.BOX 62000 00200, NAIROBI.

- 39. GITHUNGURI DAIRY & COMMUNITY SACCO
- 40. SOCIETY LTD P.O.BOX 896 00206, GUTHUNGURI.
- 41. GOOD HOPE SACCO SOCIETY LTD P.O.BOX 158 20500, NAROK.
- 42. GOODWAY SACCO SOCIETY LTD P.O BOX 626 10300, KERUGOYA.
- 43. GUSII MWALIMU SACCO SOCIETY LTD P.O.BOX 1335 40200, KISII.
- 44. HARAMBEE SACCO SOCIETY LTD P.O.BOX 47815 00100, NAIROBI.
- 45. HAZINA SACCO SOCIETY LTD P.O.BOX 59877 00200, NAIROBI.
- 46. IG SACCO SOCIETY LTD P.O.BOX 1150 50100, KAKAMEGA.
- 47. ILKISONKO SACCO SOCIETY LTD P.O BOX 91 00209, LOITOKITOK.

- 48. IMARIKA SACCO SOCIETY LTD P.O.BOX 712 80108, KILIFI.
- 49. IMARISHA SACCO SOCIETY LTD P.O.BOX 682 20200, KERICHO.
- 50. IMENTI SACCO SOCIETY LTD P.O.BOX 3192 60200, MERU.
- 51. JACARANDA SACCO SOCIETY LTD P.O. BOX 1767 00232, RUIRU.
- 52. JAMII SACCO SOCIETY LTD P.O.BOX 57929 00200, NAIROBI.
- 53. JOINAS SACCO SOCIETY LTD P.O.BOX 669 00219, KARURI.
- **54.** KAIMOSI SACCO SOCIETY LTD P.O BOX 153 50305, SIRWA.
- 55. KATHERA RURAL SACCO SOCIETY LTD P.O BOX 251 60202, NKUBU.

- 56. KENPIPE SACCO SOCIETY LTD P.O.BOX 314 00507, NAIROBI.
- 57. KENVERSITY SACCO SOCIETY LTD P.O.BOX 10263
   00100, NAIROBI.
- 58. KENYA ACHIEVAS SACCO SOCIETY LTD P.O. BOX 3080 40200, KISII.
- KENYA BANKERS SACCO SOCIETY LTD P.O.BOX
   73236 00200, NAIROBI.
- 60. KENYA HIGHLANDS SACCO SOCIETY LTD
  P.O.BOX 2085 20200, KERICHO.
- 61. KENYA POLICE SACCO SOCIETY LTD P.O.BOX 51042 00200, NAIROBI.
- 62. KIMBILIO DAIMA SACCO SOCIETY LTD P.O. BOX 81 20225, KIMULOT.
- 63. KINGDOM SACCO SOCIETY LTD P.O.BOX 8017 00300, NAIROBI.

- 64. KIPSIGIS EDIS SACCO SOCIETY LTD P.O BOX 228 20400, BOMET.
- 65. KITE SACCO SOCIETY LTD P.O.BOX 2073 40100, KISUMU.
- 66. KITUI TEACHERS SACCO SOCIETY LTD P.O.BOX 254 90200, KITUI.
- 67. KMFRI SACCO SOCIETY LTD P.O.BOX 80862 80100, MOMBASA.
- 68. KOLENGE TEA SACCO SOCIETY LTD P.O BOX 291 30301, NANDI HILLS.
- 69. KORU SACCO SOCIETY LTD P.O. BOX PRIVATE BAG, KORU.
- 70. K PILLAR SACCO SOCIETY LTD P.O.BOX 83 20403, MOGOGOSIEK.
- 71. K UNITY SACCO SOCIETY LTD P.O.BOX 268 00900, KIAMBU.

- 72. KWETU SACCO SOCIETY LTD P.O BOX 818 90100, MACHAKOS.
- 73. LAINISHA SACCO SOCIETY LTD P.O. BOX 272 10303, WANG'URU.
- 74. LENGO SACCO SOCIETY LTD P.O.BOX 1005 80200, MALINDI.
- 75. MAFANIKIO SACCO SOCIETY LTD P.O BOX 86515 80100, MOMBASA.
- MAGADI SACCO SOCIETY LTD P.O.BOX 13 00205,
   MAGADI.
- 77. MAGEREZA SACCO SOCIETY LTD P.O.BOX 53131 00200, NAIROBI.
- 78. MAISHA BORA SACCO SOCIETY LTD P.O.BOX 72713 00200, NAIROBI.
- 79. MENTOR SACCO SOCIETY LTD P.O.BOX 789 10200, MURANG'A.

- 80. METROPOLITAN NATIONAL SACCO SOCIETY LTD P.O.BOX 5684 00100, NAIROBI.
- 81. MMH SACCO SOCIETY LTD P.O.BOX 469 60600, MAUA.
- **82.** MOMBASA PORT SACCO SOCIETY LTD P.O.BOX 95372 80104, MOMBASA.
- 83. MUDETE TEA GROWERS SACCO SOCIETY LTD
  P.O.BOX 221 50104, KAKAMEGA.
- 84. MUKI SACCO SOCIETY LTD P.O BOX 398 20318, NORTH KINANGOP.
- 85. MWALIMU NATIONAL SACCO SOCIETY LTD P.O.BOX 62641 00200, NAIROBI.
- 86. MWIETHERI SACCO SOCIETY LTD P.O. BOX 2445 60100, EMBU.
- 87. MWINGI MWALIMU SACCO SOCIETY LTD P.O BOX 489 90400, MWINGI.

- 88. MWITO SACCO SOCIETY LTD P.O.BOX 56763 00200, NAIROBI.
- 89. NACICO SACCO SOCIETY LTD P.O.BOX 34525 00100, NAIROBI.
- 90. NAFAKA SACCO SOCIETY LTD P.O.BOX 30586 00100, NAIROBI.
- 91. NANDI FARMERS SACCO SOCIETY LTD P.O BOX 333 30301, NANDI HILLS.
- 92. NATION SACCO SOCIETY LTD P.O.BOX 22022 00400, NAIROBI.
- 93. NAWIRI SACCO SOCIETY LTD P.O BOX 400 60100, EMBU.
- 94. NDEGE CHAI SACCO SOCIETY LTD P.O.BOX 857 20200, KERICHO.
- 95. NDOSHA SACCO SOCIETY LTD P.O.BOX 532 60401, CHOGORIA –MAARA.

- 96. NG'ARISHA SACCO SOCIETY LTD P.O.BOX 1199 50200, BUNGOMA.
- 97. NOBLE SACCO SOCIETY LTD P.O.BOX 3466 30100, ELDORET.
- 98. NRS SACCO SOCIETY LTD P. O BOX 575 00902, KIKUYU.
- 99. NSSF SACCO SOCIETY LTD P.O.BOX 43338 00100, NAROBI.
- 100. NUFAIKA SACCO SOCIETY LTD P.O BOX 735 10300, KERUGOYA.
- 101. NYALA VISION SACCO SOCIETY LTD P.O BOX 27 20306, NDARAGWA.
- 102. NYAMBENE ARIMI SACCO SOCIETY LTD P.O.BOX 493 60600, MAUA.
- 103. NYAMIRA TEA FARMERS SACCO SOCIETY LTD
  P.O. BOX 633 40500, NYAMIRA.

- 104. NYATI SACCO SOCIETY LTD P.O. BOX 7601 00200, NAIROBI.
- 105. NEW FORTIS SACCO SOCIETY LTD P.O.BOX 1939 10100, NYERI.
- 106. OLLIN SACCO SOCIETY LTD P.O BOX 83 10300, KERUGOYA.
- 107. PATNAS SACCO SOCIETY LTD P.O BOX 601 20210, LITEIN.
- 108. PRIME TIME SACCO P.O. BOX 512 30700, ITEN.
- 109. PUAN SACCO SOCIETY LTD P.O BOX 404 20500, NAROK.
- 110. QWETU SACCO SOCIETY LTD P.O BOX 1186 80304, WUNDANYI.
- 111. RACHUONYO TEACHERS SACCO SOCIETY LTD P.O. BOX 147 40332, KOSELE.

- 112. SAFARICOM SACCO SOCIETY LTD P.O.BOX 66827 00800, NAIROBI.
- 113. SHERIA SACCO SOCIETY LTD P.O.BOX 34390 00100, NAIROBI.
- 114. SHIRIKA SACCO SOCIETY LTD P.O BOX 43429 00100, NAIROBI.
- 115. SIMBA CHAI SACCO SOCIETY LTD P.O.BOX 977 20200, KERICHO.
- 116. SIRAJI SACCO SOCIETY LTD P.O.BOX PRIVATE BAG, TIMAU.
- 117. SKYLINE SACCO SOCIETY LTD P.O.BOX 660 20103, ELDAMA RAVINE.
- 118. SMART CHAMPIONS SACCO SOCIETY LTD P.O BOX 64 60205, GITHONGO.
- 119. SMART LIFE SACCO SOCIETY LTD P.O BOX 118 30705, KAPSOWAR.

- 120. SOLUTION SACCO SOCIETY LTD P.O.BOX 1694 60200, MERU.
- 121. SOTICO SACCO SOCIETY LTD P.O.BOX 959 20406, SOTIK.
- 122. SOUTHERN STAR SACCO SOCIETY LTD P.O BOX 514 60400, CHUKA.
- 123. SHOPPERS SACCO SOCIETY LTD P.O. BOX 16 00507, NAIROBI.
- 124. STAKE KENYA SACCO SOCIETY LTD P.O.BOX 208
   40413, KEHANCHA.
- 125. STIMA SACCO SOCIETY LTD P.O.BOX 75629 00200, NAIROBI.
- 126. SUBA TEACHERS SACCO SOCIETY LTD P.O. BOX 237 40305, MBITA.
- 127. SUKARI SACCO SOCIETY LTD P.O BOX 841 50102, MUMIAS.

- 128. SUPA SACCO SOCIETY LTD P.O.BOX 271 20600, MARALAL.
- 129. TABASAMU SACCO SOCIETY LTD P.O. BOX 123 80403, KWALE.
- 130. TAI SACCO SOCIETY LTD P.O.BOX 718 00216, GITHUNGURI.
- 131. TAIFA SACCO SOCIETY LTD P.O.BOX 1649 10100, NYERI.
- 132. TAQWA SACCO SOCIETY LTD P.O. BOX 10180 00100, NAIROBI.
- 133. TEMBO SACCO SOCIETY LTD P.O.BOX 91 00618, RUARAKA NAIROBI.
- 134. TENHOS SACCO SOCIETY LTD P.O.BOX 391 20400, BOMET.
- 135. THAMANI SACCO SOCIETY LTD P.O.BOX 467 60400, CHUKA.

- 136. TRANSCOUNTIES SACCO SOCIETY LTD P.O. BOX 2965 30200, KITALE.
- **137.** TRANS NATION SACCO SOCIETY LTD P.O.BOX 15 60400, CHUKA.
- 138. TIMES U SACCO SOCIETY LTD P.O.BOX 310 60202, NKUBU.
- 139. TOWER SACCO SOCIETY LTD P.O.BOX 259 20303, OL'KALOU.
- 140. TRANS ELITE COUNTY SACCO SOCIETY LTD P.O BOX 547 – 30300, KAPSABET.
- 141. TRANSNATIONAL TIMES SACCO SOCIETY LTD P.O. BOX 2274 30200, KITALE.
- 142. UFANISI SACCO SOCIETY LTD P.O. BOX 2973 00200, NAIROBI.
- 143. UKRISTO NA UFANISI WA ANGLICANA SACCO SOCIETY LTD P.O BOX 872 00605, NAIROBI.

- 144. UKULIMA SACO SOCIETY LTD P.O.BOX 44071 00100, NAIROBI.
- 145. UNAITAS SACCO SOCIETY LTD P.O.BOX 38721–00100, NAIROBI.
- 146. UNI-COUNTY SACCO SOCIETY LTD P.O BOX 10132 20100, NAKURU.
- 147. UNITED NATIONS SACCO SOCIETY LTD P.O.BOX 30552 00100, NAIROBI.
- 148. UNISON SACCO SOCIETY LTD P.O BOX 414 10400, NANYUKI.
- 149. UNIVERSAL TRADERS SACCO SOCIETY LTD P.O.BOX 2119 90100, MACHAKOS.
- 150. VIHIGA COUNTY FARMERS SACCO SOCIETY LTD
  P.O BOX 309 50317, CHAVAKALI.
- 151. VIKTAS SACCO SOCIETY LTD P.O BOX 2183 20300, NYAHURURU.

- 152. VISION POINT SACCO SOCIETY LTD P.O.BOX 42 40502, NYANSIONGO.
- 153. VISION AFRICA SACCO SOCIETY LTD P.O BOX 18263 20100, NAKURU.
- 154. WAKENYA PAMOJA SACCO SOCIETY LTD P.O.BOX 829 40200, KISII.
- 155. WAKULIMA COMMERCIAL SACCO SOCIETY LTD P.O.BOX 232 – 10103, MUKURWENI.
- 156. WANA ANGA SACCO SOCIETY LTD P.O.BOX 34680 00100, NAIROBI.
- 157. WANANCHI SACCO SOCIETY LTD P.O.BOX 910 10106, OTHAYA.
- 158. WANANDEGE SACCO SOCIETY LTD P.O.BOX 19074
   00501, NAIROBI.
- 159. WASHA SACCO SOCIETY LTD P.O.BOX 83256 80100, MOMBASA.

- 160. WAUMINI SACCO SOCIETY LTD P.O.BOX 66121 00800, NAIROBI.
- 161. WEVARSITY SACCO SOCIETY LTD P.O BOX 873 50100, KAKAMEGA.
- 162. WINAS SACCO SOCIETY LTD P.O.BOX 696 60100, EMBU.
- 163. YETU SACCO SOCIETY LTD P.O.BOX 511 60202, NKUBU.
- 164. JITEGEMEE SACCO SOCIETY LTD P.O. BOX 86937 80100, MOMBASA.
- 165. NANDI HEKIMA SACCO SOCIETY LTD P.O. BOX 211 – 30300, KAPSABET
- 166. NANYUKI EQUATOR SACCO SOCIETY LTD P.O. BOX 1098 10400, NANYUKI.
- 167. UCHONGAJI SACCO SOCIETY LTD P.O. BOX 92503
   80102, MOMBASA.

Source: SASRA (2018)

#### **Appendix IV: KeMU Letter**



### Kenya Methodist University

P. O Box 267 - 60200, Meru, Kenya, Tel: (+254-020) 2118423-7, 064-30301/31229 Email: info@kemu.ac.ke , Website: www.kemu.ac.ke

June 19, 2019.

#### TO WHOM IT MAY CONCERN

# RE: FARAH ALI ABDIRIZAK BUS-3-0375-1/2018

This is to confirm that the above named is a student in the Department of Business Administration, in this university, pursuing a Master of Business Administration.

As a requirement, the student is expected to undertake an independent primary research in their area of specialization.

The purpose of this letter is therefore; to introduce the student to you and request you to allow him undertake the research in your organization.

The student has been advised to ensure that all data and information from the organization is treated with utmost confidentiality and only used for academic purposes unless otherwise stated.

Any assistance accorded to him will be highly appreciated.

Dr. Peter Kihara, PhD. Registrar -Academic Affairs

# **Appendix V: NACOSTI Research Permit**

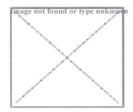




Ref No: 223847

Date of Issue: 02/September/2019

#### RESEARCH LICENSE



This is to Certify that Mr.. Abdirizak Farah of Kenya Methodist University, has been licensed to conduct research in Baringo, Bomet, Bungoma, Busia, Elgeyo-Marakwet, Embu, Garissa, Homabay, Isiolo, Kajiado, Kakamega, Kericho, Kiambu, Kilifi, Kirinyaga, Kisii, Kisumu, Kitui, Kwale, Laikipia, Lamu, Machakos, Makueni, Mandera, Marsabit, Meru, Migori, Mombasa, Muranga, Nairobi, Nakuru, Nandi, Narok, Nyamira, Nyandarua on the topic: EFFECT OF INTELLECTUAL CAPITAL ON FINANCIAL SUSTAINABILITY OF SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN KENYA for the period ending: 02/September/2020.

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