**MARKET ORIENTATION, FIRM CHARACTERISTICS, DYNAMIC CAPABILITIES AND PERFORMANCE OF DEPOSIT TAKING SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN KENYA**

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## DECLARATION

I declare that this Thesis is my original work and that it has not been submitted to this or any other University.

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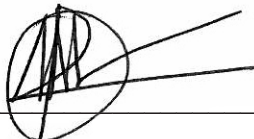School of Business

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## DEDICATION

This Thesis is dedicated to the memory of:

My father Professor Francis Davis Imbuga, blessed with great foresight, Daddy, even though you were not here physically, I felt your spirit with me in the times I was at my lowest…..thank you for watching out for me especially during my defense that was on the third anniversary of your passing.

To my Father in Law, Mr. John Kirk Mbugua, so full of humility, God took you just before the end of this journey, Baba, you always asked "mama, umefika wapi na masomo…" and would listen as I shared the challenges…am glad to finally say… "Nimefaulu…" Thank you for the support.

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# ABSTRACT

The overall objective of this study was to determine the effect of market orientation, firm characteristics and dynamic capabilities on the performance of deposit taking savings and credit cooperative societies in Kenya. The study objectives were; to determine the influence of market orientation on organizational performance, assess the effect of firm characteristics on organizational performance, determine the effect of firm characteristics on the relationship between market orientation and organizational performance, and examine the influence of dynamic capabilities on the relationship between market orientation and organizational performance. In addition the study sought to determine the joint effect of market orientation, dynamic capabilities and firm characteristics on organizational performance. The hypotheses that guided the study were derived from the stated objectives and were tested using simple and multiple regression analysis. The target population consisted of the 184 deposit taking SACCO's licensed by the SACCO Societies Regulatory Authority (SASRA) in 2014. The study was anchored on the resource based theory and the dynamic capabilities theory and guided by the positivist research philosophy. Primary data was collected through a semi structured questionnaire and secondary data was obtained from published SASRA supervision reports. Descriptive statistics were used to profile the respondents while simple and multiple linear regressions were employed to test the hypotheses. The study revealed a positive and significant relationship between market orientation and non-financial performance. Similarly, a relationship was observed between size of the SACCO and financial performance. Dynamic capabilities were investigated as a mediator in the study and the findings were that dynamic capabilities fully mediated the relationship between market orientation and both financial and non-financial performance. The study however did not find any significant relationship between firm characteristics and organizational performance. Similarly, the moderating effect of firm characteristics on the relationship between market orientation and both financial and non-financial organizational performance and the joint effect of market orientation, firm characteristics and dynamic capabilities on organizational performance were not established as the results revealed that no significant relationship existed. It was proposed that this could be due to the suppressing effects of firm characteristics. The results have important implications for theory, policy and practice. The study findings demonstrated that dynamic capability complements the effects of market orientation on organizational performance. In addition the study supported findings of previous studies regarding the positive influence of market orientation on organizational performance. The study also provided evidence of the positive effects of dynamic capabilities on organizational performance. However, the study had a number of limitations. In particular, the study's focus on the SACCO subsector which has unique operating circumstances may limit the generalizability of the study findings to other sectors while use of a single informant for each SACCO may have introduced some bias to the data obtained. These limitations however did not detract from the studies rigor. It was recommended that future studies should incorporate data from the customers (members) in order to gather a more representative view of the sector. Further, a mixed methods approach incorporating both quantitative and in depth qualitative research is recommended.

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# ABBREVIATIONS AND ACRONYMS

**CA**    Competitive Advantage

**CMA**   Capital Markets Authority

**DC**    Dynamic Capability

**DCT**    Dynamic Capability Theory

**DMI**    Deposit taking Microfinance Institutions

**DTS**    Deposit Taking SACCOs

**EMO**   Extended Market Orientation scale

**FC**    Firm Characteristics

**FMCG**   Fast Moving Consumer Good's

**FSD**    Financial Sector Deepening

**GDP**   Gross Domestic Product

**HMRA**   Hierarchical Multiple Regression Analysis

**MARKOR** Market Orientation scale ( Kohli and Jaworski)

**MKTOR**  Market Orientation scale  (Narver and Slater)

**MO**    Market Orientation

**MFSP**   Mobile phone financial service providers

**MSME**       Micro and Small Enterprises

**RBV**        Resource Based View

**ROA**        Return on Assets

**SACCO**      Savings and Credit Cooperative Societies

**SASRA**      Sacco Societies Regulatory Authority

**SME**        Small and Micro Enterprises

**VRIN**       Value, Rarity, Inimitability and Non-Substitutability

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

Over the last two decades, there has been growing recognition of the strategic importance of the market orientation concept. Day (1994) asserts that a superior understanding of customer needs, competitive actions, and market trends enables a market-oriented firm to identify and develop capabilities that are necessary for long-term performance. A market orientation positions an organization for better performance because top management and other employees have both information on customers' implicit and expressed needs and competitors' strengths, and a strong motivation to achieve superior customer satisfaction (Pelham, 1997). However, despite several studies documenting the positive association between market orientation and performance in developed economies, this does not necessarily hold true in developing countries consequently necessitating increased research in this area (Appiah-Adu, 1998; Kumar, Jones, Venkatesan & Leonne, 2011; Osuagwu, 2006;).

In addition, subsequent changes in the environment have heightened the need for firms in developing countries to adopt more competitive strategies to ensure growth. Specifically, the competitive environment has increasingly become more global, technologically oriented and customer driven. These changes can affect a firms' performance and also cause competitive advantages to be less valuable or become superseded. Consequently firms need to invest in understanding their customers, respond appropriately and rethink their capabilities.

Nevertheless, despite the evidence regarding the benefits of market orientation, literature suggests that the effect is multifaceted. Slater and Narver (1995) observe that market orientation by itself does not give a firm the ability to develop a competitive advantage and in turn performance. Similarly, Eisenhardt and Martin (2000) and Hult and Ketchen (2001) contend that market orientation is dependent on other firm level factors and does not individually affect performance.

This highlights the need to identify firm characteristics that may affect how market orientation translates into performance considering that the experience and benefits varies between firms. In support Ketchen, Hult and Slater (2007) argue that strategic resources only have potential value, and that realizing this potential requires alignment with other important organizational elements. However, knowledge on how this alignment is achieved is lacking. Morgan, Vorhies and Mason (2009) suggest that the solution may lie in identifying the capabilities through which firms deploy market orientation into the target market. This view draws in the importance of dynamic capabilities in aiding firms to integrate, build, and reconfigure their internal and external competences.

While the Resource Based View (RBV) emphasizes the role of assets and capabilities in creating competitive advantage, suggesting that this advantage lies in the possession of resources that exhibit value, rarity, inimitability and non-substitutability (VRIN) (Barney, 1991); it has been criticized for its inability to explain how resources are developed and deployed to achieve competitive advantage (Priem & Butler, 2001), and its failure to consider the impact of dynamic market environments (Lengnick-Hall & Wolff, 1999). The Dynamic Capability Theory (DCT) is widely seen as an extension to the RBV;

whereas the RBV emphasizes resource picking or selecting resource combinations, dynamic capabilities stress resource renewal or reconfiguring resources into new combinations of operational capabilities (Dosi, Nelson & Winter, 2000).

Further, Teece (2007) asserts that dynamic capabilities are required if the firm is to sustain its competitiveness as markets and technologies change, although some firms will be stronger than others in performing some or all of the tasks. However, as argued by Eisenhardt and Martin (2000) and Wang and Ahmed (2007), for dynamic capabilities to be a source of competitive advantage they have to be applied sooner, more astutely and more fortuitously than competitors. A market orientation is proposed to facilitate this process. The two theories therefore provide the theoretical anchoring for this study which proposes that the combination of dynamic capabilities with a market orientation has a positive effect on performance.

The SACCO movement in Kenya contributes over 30 percent of the country's savings and supports cooperatives in contributing over 45 percent of the nation's Gross Domestic Product (GDP) (Ministry of Cooperative Development & Marketing (MOCDM), 2011). Similarly, about 63 percent of the Kenyan population participates either directly or indirectly in cooperative based enterprises (MOCDM, 2011). In 2013, the total SACCO subsector assets stood at Kshs. 335 billion, an increase of 35 percent from 2011 and funded mainly from member deposits and equity (SASRA, 2013). Further, an estimated 1.7 million Kenyans, or 9 percent of the country's adult population, rely on them for financial services (WOCCU, 2014). However, in spite of their wide geographical reach in the country compared to other financial service providers, SACCOs have lost their

market share dropping from 13.5 percent in 2009 to 9.1 percent in 2013 (Financial Access Report, 2013).

The Financial Access Report (2013) further attributes this loss to two factors, first, is the competition from banks through proactive outreach by offering easy access transactions accounts as well as consumer loans. The second factor is the attrition of the SACCOs market base as a result of retirements in the public sector and preference by younger employees to patronize banks. Additionally, the difference between financial institutions is steadily being eroded by their changing role consequently increasing the sectors competitiveness. The study posits that market knowledge, information and possession of the right capabilities can help SACCOs better understand and assess the opportunities, challenges and risks that the market presents. This will enable effective competition by providing products and services that are perceived by the consumer as being of value and in the long run enhance their performance.

## 1.1.1 Market Orientation

Market orientation refers to a business approach that focuses on identifying and meeting stated or hidden needs or wants of customers (Kotler & Keller, 2012). Several other definitions of market orientation are cited in existing literature. Shapiro (1989) viewed market orientation as a decision-making process encompassing all the aspects of an organization from information gathering to execution at the functional and divisional level. Kohli and Jaworski (1990) posit that market orientation is the organization wide generation and dissemination of market intelligence pertaining to current and future needs of customers, and the responses to it. Whereby market intelligence generation

includes the gathering, monitoring, and analyzing of information pertaining to the current and future needs of customers; monitoring and analyzing competitive actions and exogenous factors affecting customers; and gathering and monitoring market intelligence through both formal and informal means (Day & Wensley, 1983; Houston, 1986; Kohli & Jaworski, 1990).

Market intelligence dissemination involves sharing both existing and anticipated information concerning customers, exogenous factors, and competitors throughout the organization and ensuring effective use of disseminated information by encouraging all departments and personnel to share this information (Jaworski & Kohli, 1993; Slater & Narver, 1994). Market intelligence responsiveness involves, developing, designing, implementing, and altering goods and services in response to the current and future needs of customers; developing, designing, implementing, and altering systems to promote, distribute, and price goods and services that respond to those needs; and utilizing market segmentation, product differentiation, and other marketing strategies in this process (Kohli, Jaworski, & Kumar, 1993).

On their part, Narver and Slater (1990) regard market orientation as the organizational culture that most effectively and efficiently creates the necessary behaviors' for the creation of superior value for buyers and thus superior performance for business. They further describe it as encompassing three behavioral aspects. A customer orientation, which involves the continuous understanding of the needs of both the current and potential target customers and the use of that knowledge for creating customer value;

competitor orientation, involving the continuous understanding of the capabilities and strategies of the principal current and potential alternative satisfiers of the target customers and the use of such knowledge in creating superior customer value; and inter-functional coordination, comprising the coordination of all functions in the business in utilizing customer and other market information to create superior value for customers (Narver & Slater, 1990).  In addition, Deshpande and Farley (1998) described market orientation as a set of cross functional processes and activities directed at creating and satisfying customers through continuous needs assessment  further arguing that the key to having a successful business firm arises from determining the needs and wants of customers and satisfying these needs more effectively than the competition.

 Over the years, several studies on market orientation have cited Kohli and Jaworski's (1990) or Narver and Slater's (1990) definitions.  Rojas-Mendez, Kara and Spillan (2006) observed that Kohli and Jaworski's MARKOR and Narver and Slater's MKTOR measurement scales are the most frequently cited scales in marketing literature. The Scale developed by Narver and Slater has received widespread support in the literature for its reliability and validity and has since been used in a number of market orientation studies (Menguc & Auh, 2006; Njeru, 2013; Zhou, Brown & Dev, 2009). However, the Kohli and Jaworski's approach is used in the study due to its focus on an organization-wide market orientation, rather than the Narver and Slater approach which assesses the more general extent of a customer and competitor orientation and inter-functional coordination. Moreover, a study by Matsuno, Mentzer and Rentz (2005) in which they compared their extended market orientation EMO scale with the two market orientation scales concluded

that MARKOR scale was superior to MKTOR scale for its consistency with market orientation theory and scale operationalization.

Furthermore, the core of Kohli and Jaworski's definition of a market orientation is that of information processing (Cadogan, et al., 1999; Tuominen et al., 1999). According to Day (1994) information processing abilities are critical to an organization first, due to acceleration of change, the explosion of available market data, and the importance of anticipatory action and secondly, as a source of competitive advantage due to their value in numerous activities, their difficulty to achieve, and the difficulty that competitors have imitating them. However in order to have a significant effect on performance, Prahalad and Hamel (1990) contend that market knowledge must be translated into strategic capabilities that in turn will create a core competence leading to a defendable competitive advantage.

Market oriented firms must therefore communicate their mission, vision and values in such a way that every employee knows his/her role and in turn be able to change and adapt to new market situations such as increased competition, needs and expectations of customers and new technologies. This requires the firm to actively gather and analyze market knowledge and empower their people with it. Towards this end the study investigated the level of market orientation exhibited by the SACCOs, and the relationship between this orientation and the capabilities within the firm to establish existence of synergy.

**1.1.2 Firm Characteristics**

Firm characteristics are the firms' demographic and managerial variables that comprise part of the firms' internal environment (Zou & Stan, 1988). According to McGahan (1999), 36 per cent of industry variance in profitability could be attributed to the firms' characteristics and actions. Researchers vary in their operationalization of firm characteristics; however one aspect that is common in most studies encompassing firm characteristics is age of the firm. Halliday and Powell (1993) observe that as organizations grow in age they refine their routines and strategies and returns become more certain. However, Szulanski, (1996) and Boeker (1997) observed that older firms suffer from ossification of their routines, non-learning processes, blindness, and conservatism, which cause poor performance and decline. Similarly, Yin and Zajac (2004) observed that the age of a business has a negative influence on its performance. This contrasts with the views of Liargovas and Skandalis (2008) who contend that older firms may also benefit from reputation effects, which allow them to earn a higher margin on sales.

Another key influential variable used in organizational studies is firm size. Fried and Lovell (1993) while evaluating the performance of credit unions in Wisconsin, where size was measured by number of members and asset size class found that large credit unions are more likely to be radially efficient than small credit unions. A study by Miller and Chen (1994) found an association between firm size and inadequate or slow adaptation to change or resistance to fundamental changes in conducting business. Similarly, larger firms are more likely to have more layers of management, greater number of departments, increased specialization of skills and functions, greater formalization,

greater centralization, and greater bureaucracy than smaller firms (Daft, 1995). This view is supported by Cadogan, Diamantopoulos and Siguaw, (2002) who argue that as firms become older and more experienced, they tend to be more bureaucratic and inflexible. Larger firms would therefore be expected to have more organizational capabilities but be challenged in dynamic capabilities. From the preceding observations it follows that firm characteristics are specific and form part of the internal atmosphere which is likely to moderate a market orientation and its eventual translation to performance and were thus of importance to the study.

### 1.1.3 Dynamic Capabilities

Eisenhardt and Martin (2000) define dynamic capabilities as being processes in terms of strategic or organizational routines through which firms reconfigure their resources to respond to or create market change. Zollo and Winter (2002) describe a dynamic capabilities as the learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness. On their part, Helfat et al, (2009) provide that a dynamic capability is the capacity of an organization to purposefully create, extend or modify its resource base. Dynamic capabilities are similar to organizational capabilities in as far as they are both organizational routines, but they have different outcomes. Whilst organizational capabilities enable the firm to produce goods and services, the dynamic capabilities ensure the renewal and development of the organizational capabilities (Hou, 2008). Dynamic capabilities address how firms deal with the environmental dynamism that threatens to make their existing capabilities obsolete (Tushman & Anderson, 1986; Winter, 2003). Helfat et al., (2007) argue that while dynamic capabilities do not directly

contribute to a firm's performance or its competitive advantage; they permit a firm to manipulate its resources.

Despite its theoretical usefulness and general adoption, the concept of dynamic capabilities has been challenging for researchers to operationalize. According to DiStefano, Peteraf and Verona (2010), most contributions on dynamic capabilities concern debates on its foundations. Critics of the DCT attribute these varying views to the lack of empirical grounding (Zahra et al., 2006) and accurate measurement (Williamson, 1999). Pavlou and El Sawy (2006) proposed four capabilities which included Sensing Capability, Learning capability, Integrating capability and Coordinating capability. Teece (2007), proposed the following activities as encompassing a dynamic capability; sensing, seizing and transforming. Similarly, Hou (2008) compared literature from work done by various researchers and from it proposed four core components that include Sensing capability, Absorptive capability, Integrative capability and Innovative capability.

Sensing capability reflects the ability to sense the environment and understand customer needs and market dynamics better than competitors. It captures the effectiveness in sensing the environment through effectively generating, disseminating and responding to market intelligence on customer needs. The Absorptive capability is the ability of a firm to recognize the value of new, external information, assimilate it, and apply it to commercial ends (Cohen & Levinthal, 1990). Integrative Capability is the ability to capture the effectiveness in bringing together patterns of interaction by specifying the

organizing principles by which individual input is targeted (Grant, 1996). It is further described as the ability to integrate disparate patterns of interaction through careful contribution, representation and interrelation (Okhuysen & Eisenhardt, 2002). Innovative capability refers to an organizations' ability to develop new products and/or markets through aligning strategic innovative orientation with innovative behaviors and processes (Wang & Ahmed, 2004). The Dynamic capabilities selected for the study were assessed in terms of their mediation of the relationship between market orientation and performance.

### 1.1.4 Organizational Performance

Performance comprises the actual output or results of an organization as measured against its intended outputs (goals and objectives). Venkataram and Ramanujan (1986) state that performance is an important concept that is at the center of an organization and its measurement is critical in determining whether the organization is achieving the desired results. Daft, (2000), defines organizational performance as the organization's ability to attain its goals, by using resources in an efficient and effective manner. While Javier, (2002), views performance as being equivalent to the famous 3Es (economy, efficiency, and effectiveness) of a certain program or activity; Richard et al (2009), propose that organizational performance encompasses three specific areas of firm outcomes; financial performance, market performance and shareholder return, each with its specific indicators and further distinguish between two basic approaches to performance: direct economic performance and overall effectiveness. Market performance is measured by assessing customer satisfaction, customer retention, value delivered to customers and market share (Homburg & Pflesser, 2000).

Although the importance of organizational performance is widely recognized, debates on the bases for performance measurement still abound.  While arguing for a multiple indicator approach to measure performance, Venkatraman and Ramanujan (1986) suggested that researchers in addition to using financial indicators should also use operational indicators. They proposed that operational indicators may include such measures as new product introduction, product quality, manufacturing value-added and marketing effectiveness which may reflect the competitive position of the firm in its industry space and might lead to financial performance. Concluding that using a multiple indicator approach to operationalize firm's performance would be superior to using only a single indicator.  Neely (1998)  defined a performance measurement system as consisting of three interrelated elements: - Individual measures that quantify the efficiency and effectiveness of actions; a set of measures that combine to assess the performance of an organization as a whole; and a supporting infrastructure that enables data to be acquired, collated, sorted, analyzed, interpreted and disseminated. This definition served to identify performance as multidimensional.

Bourne et al., (2003) define performance measurement as the process of quantifying the efficiency and effectiveness of action. They further provide that effectiveness is the extent to which customer requirements are met, while efficiency is a measure of how cost-effectively the firm's resources are utilized when providing a given level of customer satisfaction. In support of these conceptualizations, various performance measurement techniques designed for business implementation are found in existing

literature, the Balanced Scorecard ( Kaplan & Norton, 1996), Performance Prism (Neely, Adams & Kennerley, 2002) and the Cambridge Performance Measurement Process (Neely et. al, 2002).

According to Anderson et al. (2000), the performance of SACCOs can be measured through quantitative variables (net profit, return on equity) and qualitative measures (member's satisfaction, attitude change toward the society or its products). On his part, Meyer (2002) provides that three basic performance indicators must be considered while evaluating the performance of SACCOs. This includes outreach to the poor, financial performance and welfare impact. Mirie (2014) argued that performance measurement of SACCOs differs from that of commercial banks due to their difference in objectives thus measurement is in terms of efficiency for SACCOs and return on assets and equity for commercial banks. From the fore going discussion it is seen that different organizations use varying measures of performance and this has been the source of contention in studies focusing on organizational performance. Nevertheless Chatterton and Goddard (2001) contend that organizational performance should ideally be measured in line with its linkage to the industry which it serves. In line with this view and due to the unique circumstances in which credit unions operate, the study adopted the PEARLS system developed by WOCCU for monitoring the performance of credit unions. The PEARLS monitoring system provides an effective tool for comparing credit union performance on a national basis and is also useful for comparative ranking (WOCCU, 2012).

The PEARLS system is considered objective as no qualitative or subjective indicators are included in the rankings. Each letter of the name "PEARLS" looks at a different, but

critical aspect of the credit union: Protection, Effective financial structure, Asset quality, Rates of return and costs, Liquidity and Signs of growth. According to Urde, Baumgarth and Merrilees (2011) the performance metrics of a market-oriented company are such key performance indicators as customer satisfaction, customer loyalty or customer lifetime value. In this regard, for purposes of the current study, performance was measured using the signs of growth indicator under the PEARLS system as it reflects member-client satisfaction, appropriateness of product offerings and financial strength. Growth directly affects a SACCO's financial structure and requires close monitoring to maintain balance (WOCCU, 2012)

### 1.1.5 The Savings and Credit Cooperative Societies in Kenya

A Savings and Credit Cooperative Society (SACCO) is a member owned financial cooperative whose primary objective is to mobilize savings and afford members access to loans on competitive terms as a way of enhancing their socio-economic wellbeing (WOCCU, 2014). The Kenyan SACCO sub-sector comprises individual SACCO societies, Unions of SACCO societies (Kenya Union of Saving and Credit Cooperatives (KUSCCO), Kenya Rural SACCO Societies Union (KERUSSU) and SACCO Societies Regulatory Authority (SASRA). The rapid growth of the SACCO sub sector led to the need for regulation which was realized through enactment of the SACCO societies act (2008) that made provisions for the establishment of SASRA. The key role for SASRA is to provide guidelines for protection of member's deposits and thus manage all registered Front Office Services Activity (FOSA) providers otherwise known as Deposit Taking SACCOs (DTS's). SACCOs operating FOSA were given until June 2014 to comply with the registration requirements (Ministry of Industrialization, 2014). There

were a total of 1995 active SACCO societies in Kenya as at 31st December 2013, of which 215 were deposit taking or offering quasi-banking services (SASRA, 2013). (The word "Active" here denotes those firms that have filed audited financial statements with the Commissioner of Cooperative development.) The 1780 non-deposit taking SACCOs are supervised by the Commissioner for Cooperatives, however it is noteworthy that the DTS's account for over 75 percent of the sub sectors assets (SASRA, 2013).

SACCOs mobilize savings by developing demand driven financial products to encourage members to save. With over Kshs. 335 billion in assets and a savings portfolio estimated at Kshs. 241 billion the SACCO movement in Kenya contributes a significant proportion of the country's savings becoming a vital component of Kenya's economic and social development (SASRA, 2013).Similarly, SACCOs contribute to the Vision 2030 social pillar by financing education through loans and providing credit facilities to members to meet agricultural, medical and housing services (KUSCCO, 2014). The distribution of SACCOs widely across counties in the country accentuates their being the best placed to promote financial inclusion compared to other financial providers. Despite this geographical spread, SACCOs lost their market share to other financial service providers dropping from 13.5 percent in 2009 to 9.1 percent in 2013 (Financial Access report, 2013). Consequently, they are required to do more to broaden their outreach by developing appropriate strategies, products and services to effectively meet market needs. In this regard, several SACCOs have rebranded in an attempt to have a more nationalist look and to provide more services (SASRA, 2013).

## 1.2 Research Problem

The importance of firms adopting a market orientation to complement the firms' dynamic capabilities, subsequently enhancing performance, should not be underestimated. Market orientation enables the firm to respond to market intelligence in a timely and efficient manner and deliver superior value to meet the unique needs of its market and is thus considered a source of competitive advantage (Li & Zhou, 2009). However, there is little understanding of how this market-based asset is deployed to achieve competitive advantage and in turn performance. Similarly, Zahra et al. (2006) argue that the mere existence of dynamic capabilities in a firm does not result in competitive advantage or high performance. In support of the contention by Winter (2003) that dynamic capabilities build and reconfigure resource positions, operational routines or operational capabilities and, through them, affect performance, the study proposed that a firms possession of a market orientation, dynamic capabilities and certain firm characteristics in combination may be the required deployment mechanism.

The SACCOs core business is to mobilize savings and provide credit. This in turn supports growth of the financial services sector which plays a crucial role in the financing of Kenya's investment needs. However, the sub sector's market share has decreased from 13.5 percent in 2009 to 9.1 percent in 2013 (Financial Access report, 2013). In order to compete effectively the SACCO sub-sector's players require efficient exploration of new opportunities through customer driven innovations. While several studies have been carried out on the SACCO sub sector within Kenya (Gaitho, 2010; Gisemba, 2010; Kilonzi 2012; Wanyoike, 2013; Mirie, 2014), the studies focused on issues such as the impact of credit risk management, regulatory framework or management practices on

performance. To the best knowledge of the current researcher, no study had been carried out yet on the effect of market orientation and dynamic capabilities on SACCO performance.

While considerable attention has been directed towards the relationship between market orientation and performance, the varied conceptualization and measurement of the constructs has resulted in wavering implications on performance (Kirca et al, 2005). These inconsistent findings highlight the need to identify the nature of this relationship more so in the Kenyan context. Equally, limited empirical literature is available on dynamic capabilities and their effect on performance. Specifically, the concept of dynamic capabilities from a co-operative movement perspective has not been probed. The extant literature on dynamic capabilities is mostly based on studies carried out in developed economies and employs use of case studies presenting a contextual and methodological gap that needs to be investigated further.

Menguc and Auh (2006) studied the creation of firm level dynamic capabilities through capitalizing on market orientation and innovativeness using 735 large manufacturing firms in Australia and found that the effect of market orientation on performance was strengthened when market orientation was bundled together with internal complementary resources like innovativeness. Their study suggested that market orientation was an antecedent to dynamic capabilities. While Asikia (2010) and Njeru (2013) both observed positive effects of market orientation on performance in the African context, the former ignored the  of role of firm attributes in this relationship while the latter was limited to

marketing activities of the organization which is just one of the activities that organizations can embrace. The current study through dynamic capabilities probed activities carried across the organization and investigates the role of firm characteristics in this relationship.

Furthermore, while some investigators (Dawes, 1999; Han et al., 1998) found consistency between objective and subjective measures, more than 50% of the studies reviewed by Gonzalez-Benito and Gonzalez-Benito (2005) revealed stronger relationships for subjective as opposed to objective performance measures. These findings highlight the need to elucidate further on nature of these relationships.

The foregoing discussion highlights the main knowledge gaps the study seeks to fill. First, is the general absence of adequate evidence on the process through which market orientation affects performance and use of both subjective and objective measures to assess this effect; Secondly, the limited research on dynamic capabilities and their effect on performance and the nature of their role specifically in the services sector and Kenyan context. Thirdly, the study follows an integrated approach to investigate the joint effect of all the variables on performance. This study therefore sought answer to the question: What is the effect of market orientation, firm characteristics and dynamic capabilities on organizational performance?

## 1.3 Research Objectives

The overall objective of the study was to determine the effect of market orientation, firm characteristics and dynamic capabilities on performance of Deposit Taking SACCOS in Kenya. The specific objectives were to:

i)   Determine the influence of market orientation on organizational performance.

ii)  Assess the effect of firm characteristics on organizational performance.

iii) Determine the effect of firm characteristics on the relationship between market orientation and organizational performance.

iv)  Examine the influence of dynamic capabilities on the relationship between market orientation and organizational performance.

v)   Determine the joint effect of market orientation, dynamic capabilities and firm characteristics on organizational performance.

## 1.4 Value of the Study

The study contributes to theory and knowledge in the relatively new area of dynamic capabilities more so in a developing economy. The knowledge gained on the relationship between market orientation and performance coupled with the mediating effect of dynamic capabilities provides much needed insight and further understanding of how competitive advantage and performance is achieved by organizations that invest in developing a market orientation

The SACCO sub-sector in Kenya has a high growth potential given the various initiatives being undertaken in the sector. The knowledge gained from the study will aid development and improvement of existing policies and regulations whilst providing guidance on achievement of the Vision 2030 goals through revision of existing strategies. This is especially so for those initiatives aimed at financial inclusion. Being aware of the extent to which market orientation is practiced and implemented in the sector aids in promoting the importance of the customer's voice in strategy development and implementation and encourage innovation to provide services that meet market needs. Further, the overseeing bodies SASRA and the Central Bank of Kenya will find the information generated useful in assessing the impact of newly introduced legislation on the operating environment of member SACCOs.

Finally, the study provides useful information to guide investment in the SACCO sub sectors growth in turn aiding financial market development in Kenya. The SACCOS involved in the study have benefited from the process by gaining an opportunity to review their efforts on understanding the customers' (Member) needs. They will also find the information collected useful in ensuring that they develop, enhance and maintain meaningful interactions with their customers whilst keeping abreast with changes in their environment. This in turn encourages development of industry benchmarks that will guide progress.

## 1.5 Organization of the Thesis

This thesis comprises six chapters. Chapter one is the introduction to the thesis and briefly describes background to the study, market orientation, performance and the other

study variables, the statement of the problem, study objectives, and value of the study. Chapter two presents the theoretical and empirical literature that guided the study and delves deeper into the proposed relationships that exist between market orientation, firm characteristics, dynamic capabilities and performance. A summary of the identified knowledge gaps, the conceptual framework and the major hypotheses are then provided at the end of this chapter.

Chapter three presents the positivism paradigm that was the guiding philosophy of the study. The research design, data collection procedures, operationalization and measurement of the variables and data analysis techniques employed are presented at the end of this chapter. Chapter four presents research findings, tests on statistical assumptions and descriptive findings from the study. Chapter five presents the tests of the hypotheses, interpretation of the findings and discussion of the results. Chapter five summarizes the study findings, implications of these findings on theory, policy and practice and finally presents the conclusions, and recommendations.

# CHAPTER TWO: LITERATURE REVIEW

## 2.1 Introduction

This section reviews the literature relating to the key variables market orientation, firm characteristics, dynamic capabilities and performance, the relationships that exist between them, and their contribution to the conceptual framework. Further the section sets out the hypotheses that guided the study.

## 2.2 Theoretical Foundation of the Study

This study was based on the Resource Based View (RBV) Wernerfelt (1984) and Barney (1991) and the Dynamic Capabilities Theory (DCT) proposed by Teece, Pissano and Shuen (1997). Both theories support the market orientation and performance relationship and by focusing on the internal organization of firms, seek to explain how some firms in an industry will have a competitive advantage over others. The study brings together the two theoretical views while attempting to explain the interaction between the identified variables and their combined effect on performance.

### 2.2.1 The Resource Based View

Resources are defined as physical assets, intangible assets and organizational capabilities that are tied semi permanently to the firm (Wernerfelt, 1984). The RBV proposes that competitive advantage stems from a firms unique assets and distinctive capabilities (Barney, 1991, 2001). Further it assumes that firms can be conceptualized as bundles of resources and that those resources are heterogeneously distributed across firms with resource differences persisting over time (Amit & Schoemaker, 1993; Wernefelt, 1984).

On their part, Baker and Sinkula (2005) contend that the RBV of the firm proposes that firm performance depends on firm specific resources and capabilities. Market orientation is therefore considered a part of the overall firms' resource base. According to the resource based view of the firm, resources (inputs for the production of goods and provision of services) and organizational capabilities (intangible assets that are based on skills, learning, and knowledge in deploying resources) can be sources of competitive advantage.

However, the RBV has been criticized for its inability to explain how these resources are developed and deployed to achieve competitive advantage, and its failure to consider the impact of dynamic market environments (Lengnick-Hall, 1999; Priem & Butler, 2000). The extension of RBV to the DCT therefore developed as a way to explain how some firms succeed in dynamic competitive environments while others often fail (Arend & Bromiley, 2009).

### 2.2.2 The Dynamic Capabilities Theory

The Dynamic Capabilities Theory (DCT) recognizes the need for firms to have a better understanding of market dynamics and focuses on the firm's ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environments (Teece et al, 1994). Accordingly, dynamic capabilities can be seen as those processes where resources are acquired, integrated, transformed, or reconfigured to generate new value-creating firm-based activities (Eisenhardt & Martin, 2000; Teece et al., 1997). Supporting this value creating view of the DCT, Griffith and Harvey (2001)

argue that because building dynamic capabilities requires internal processes and efforts rather than acquisitions from market transactions, they are the most unique and difficult to imitate assets a firm can use to achieve and sustain competitive advantage. However, dynamic capabilities are not directly involved in the production of a good or provision of a service and therefore do not directly affect a firm's output (Helfat & Peteraf, 2003). Basically, they affect the productive process indirectly by integrating, reconfiguring, gaining, and releasing resources to respond to environmental turbulence or to create internal and external change (Eisenhardt & Martin, 2000; López, 2005).

Teece (2007) states that dynamic capabilities can be used to sense, shape and seize opportunities and threats, and to maintain competitiveness. However, Managers must regularly make decisions on how to renew existing operational capabilities into new ones that better match the changing quest to achieve a sustainable competitive advantage (Grewal & Slotegraaf, 2007). Eisenhardt and Martin (2000) propose that dynamic capabilities exhibit different features depending on the prevailing type of markets. The first type is a moderately dynamic market where changes occur frequently but follow predictable and linear paths and industry structures are relatively stable. In this situation firms rely heavily on existing knowledge, and designs of processes and activities typically follow a problem-solving approach.

The second type is a high-velocity market where changes are nonlinear, less predictable, market boundaries are distorted and industry structures are indistinct and shifting. Faced with this type of circumstances Eisenhardt and Martin (2000) propose that the firm's

dynamic capabilities' focus is on rapidly creating situation specific new knowledge. For each of these decision situations the study proposed that a market orientation through its activities of market intelligence generation, dissemination and subsequent responsiveness to intelligence acquired would support the decision making process.

## 2.3 Market Orientation and Organizational Performance

Many studies have strongly advocated adoption of market orientation in order to achieve competitive advantage. Hunt and Morgan (1995) emphasized that a market orientation could be treated as a firm's resource for gaining sustainable competitive advantage. In this sense it consists of norms for behavior that guide the business in learning quickly from and about different types of needs, and responding in an entrepreneurial manner to deliver superior customer value. Although referring to market driven firms, Weerawardena and O'Cass (2004) argued that market-driven firms are superior in their market sensing and customer linking capabilities, enabling them to outperform their competitors.

The capabilities arising from a market orientation enable the business to identify and exploit discontinuities in the markets it currently serves as well as those that are yet to be explored. Indeed Slater and Narver (1995) concluded that market orientation places the highest priority on the profitable creation and maintenance of superior customer value arguing further that as a form of business culture, a market orientation is difficult for competitors to observe and understand, much less to imitate  and, thus, is a competitive advantage.

A market orientation positions an organization for better performance because top management and other employees have both information on customers' implicit and expressed needs and competitors' strengths, and a strong motivation to achieve superior customer satisfaction (Pelham, 1997). Furthermore, a market orientation encourages a culture of experimentation and a focus on continuously improving the firm's process and systems. This implies that developing and improving on a firm's market orientation may make a firm's capabilities become more distinctive (relative to the competition) over the long run, resulting in a sustainable competitive advantage (Kumar et al, 2011).

While studying the effect of market orientation and marketing capabilities on firm performance, Morgan Vorhies and Mason (2009) concluded that market orientation, as a key market-based knowledge asset, and marketing capabilities as important market-relating capabilities, would both seem to be fundamental elements in enabling firms to acquire and deploy resources in ways that reflect their market environment. Similarly Njeru (2013) found a positive and significant relationship between market orientation and performance of tour operator firms in Kenya and also between marketing practices and performance. Their findings support the opinion by Prahalad and Hamel (1990), that market knowledge must be translated into strategic capabilities that in turn will create a core competence leading to a defendable competitive advantage.

Zhou et al, (2009) studied the effect of customer value on a firm's market orientation and in turn competitive advantage based on innovation advantage and market advantage and observed that the greater a firm's customer orientation, the more the firm is able to

develop a competitive advantage based on innovation and market differentiation. In contrast, a competitor orientation has a negative effect on a firm's market differentiation advantage. There is extensive existing literature and empirical studies on the market orientation-performance relationship which has shown mixed results on whether there is a direct effect, mediated effect or non-significant effect. However, how market orientation contributes towards enhanced performance remains a question for further research.

## 2.4 Firm Characteristics and Organizational Performance

Day and Wensley (1988) assert that a firm's key assets and skills comprise its sources of sustainable competitive advantage that enables a firm identify exceptional behavior, develop and execute appropriate marketing strategy efficiently and effectively. Similarly, Higgins (2005) views firm characteristics as having an influence on organizational behavior and also on the choice of strategy hence capable of not only influencing but also driving firm performance. While studying the moderating effect of firm characteristics on the relationship between Total Quality Management (TQM) and firm performance, Hendricks and Singhal (2001) found that smaller firms in terms of size tended to have higher sales growth after implementing TQM and also benefitted from it more than larger firms. They further argued that age and size of the firm were associated with a slow adaptation to change or resistance to fundamental changes in conducting business.

This differs with the observation by Thuo (2010) that organizational factors (Age and size) did not directly influence competitiveness of Commercial Banks in Kenya and did not moderate the relationship between Customer Relationship Management (CRM) and

market productivity. A finding that resonates with the finding by Njeru (2013), who found that firm characteristics did not influence firm performance neither did they moderate the relationship between market orientation and marketing practices. This would then raise the question of whether these findings are influenced by context of the study, in this case Kenya.

However, Kinoti (2012) in a study of ISO 9000 and 14000 Certified Organizations in Kenya found a moderating effect of organizational characteristics (Age, size, type of industry and ownership) on the relationship between corporate image and firm performance. Given these different results, it is important to further investigate the presence of a moderating effect of firm characteristics on the relationship between market orientation and performance.

## 2.5 Market Orientation, Firm Characteristics and Organizational Performance

Chandler and Hank (1994) in a study on market attractiveness and venture strategy found that the stage of the industry, especially in emerging or growing markets have a significant impact on new venture growth. Atuahene-Gima (1996) argues that market orientation provides a common goal orientation, which leads to enhanced inter-functional teamwork and subsequently enhances performance. Similarly, Au and Tse (1995) in a study on the hotel industry in Hong Kong and New Zealand observed that the firm size, market turbulence, technological turbulence and the degree of competition in the industry impact on the market orientation and firm performance relationship.

Makadok (2001) argues that no matter how outstanding a company's capabilities are, they do not generate economic profits if the company fails to acquire resources which will enhance the productivity of these capabilities. This argument is complemented by Hunt's (2002) view that if a firm is market oriented and its competitors are not, a market orientation strategy maybe a resource that moves the firms marketplace position (to a more favorable one) of competitive advantage. Mahmoud (2011) studied 191 SME's in Ghana and found that owner/ managers attitude impacted on the development of a market orientation in the SME sector and that having a market orientation led to superior performance.

**2.6 Market Orientation, Dynamic Capabilities and Performance**

Deshpande, Farley and Webster (1993) argue that putting the customers' interest first is the most important activity of market orientation. Their view emphasizes the need for a strategic focus on the customer. Market oriented firms follow specific and identifiable routines and processes such as generating information on customers through monitoring and assessing their changing needs and desires, disseminating this information throughout the firm and revising business strategy to enhance customer value. (Kohli & Jaworski, 1990; Naver & Slater, 1990). Furthermore, Hunt and Morgan (1995) and Day and Wensley (1998), suggest that investment in innovation and capabilities that constantly force competitors to work harder to catch keep abreast with the firm are likely to provide the firm with long time competitive advantage. Day (1994) suggests that firms with superior capabilities in marketing are better generators of information about customer wants and needs and are also better at developing goods and services to meet those wants and needs. He goes on to add that superior capabilities in marketing give the

firm the ability to generate and act on information about competitor actions and reactions. Due to the ability to generate, disseminate and respond to intelligence on the prevailing market forces, a market oriented firm has a base on which to build a competitive advantage. However, Day (1994) asserts that in order to benefit from this processes the firm needs to develop the capabilities to generate, disseminate and respond to market intelligence. This view suggests that capabilities are necessary for competitive advantage to be gained.

Similarly in high velocity markets, dynamic capabilities rely more on real-time information, cross functional relationships and intensive communication among those involved in the process and with the external market (Eisenhardt & Martin, 2000; Teece, 2007). Capabilities are important to firm development, since capabilities are often found in intangible resources, they are difficult to imitate and are consequently firm dependent (Shane, 2002). It is this inimitable quality that makes capabilities a source of competitive advantage. Eisenhardt and Martin (2000) argued that dynamic capabilities value for competitive advantage lies in the resource configurations that they create, not in the dynamic capabilities themselves and while dynamic capabilities are certainly idiosyncratic in their details, the equally striking observation is that specific dynamic capabilities also exhibit common features. They conclude that dynamic capabilities have equifinality, are substitutable and fungible hence many firms will have similar dynamic capabilities.

According to Zott (2000), little is known about the ways in which dynamic capabilities affect the emergence of intra-industry firm performance differences. On one end, Teece et al (1997) make an explicit link between dynamic capabilities and competitive advantage stating that if the firm has a dynamic capability, it must perform well, and if the firm is performing well, it should have a dynamic capability. This view is in line with Barney's (1991) assertion that as dynamic capabilities drive the development of new operational capabilities, help to foster firm competence, and positively influence successful innovations, and they are very likely to be an enabling force for implementing value creating strategies, which are not simultaneously being implemented by competitors.  On the other end, Zott (2003) argues that dynamic capabilities are indirectly linked with firm performance by aiming at changing a firm's bundle of resources, operational routines, and competencies, which in turn affects economic performance.

Wilden, Gudergan and Lings (2013) view dynamic capabilities as affecting organizational performance indirectly and directly, arguing that the indirect positive influence on performance is achieved through creating, extending, and modifying the resource base (Eisenhardt & Martin, 2000; Helfat et al., 2007; Kale, Dyer & Singh, 2002). Further, they propose that dynamic capabilities have a direct effect on performance from a cost perspective as the creation, maintenance, and utilization of dynamic capabilities create costs.

While exploring the link between dynamic capabilities and performance, Protogerou, Caloghirou and Lioukas (2012) found that the direct effect of dynamic capabilities on performance was insignificant and that dynamic capabilities impinge on operational capabilities which in turn have an effect on performance. Given the above evidence, it

was hypothesized that dynamic capabilities through its components guide the deployment of market orientation to provide enhanced performance.

## 2.7 Market Orientation, Firm Characteristics, Dynamic Capabilities and

### Organizational Performance

In the 1990s, with the rise of the resource-based approach, strategy researchers' focus regarding the sources of sustainable competitive advantage shifted from industry to firm specific effects (Spanos & Lioukas, 2001). A central premise of the resource-based view is that firms compete on the basis of their resources and capabilities (Peteraf & Bergen, 2003). Market orientation has a positive relationship with a number of capabilities such as the customer-linking capability (Hooley et al., 2005) and the market-sensing capability (Day, 1994). Morgan et al. (2009) suggest that modeling market orientation within a capabilities perspective may facilitate a more satisfactory prescriptive approach rather than simply measuring the status of market orientation, the emphasis will be on identifying key capabilities, which the organization must develop in order to be market-driven.

These capabilities involve complex coordinated patterns of skills and knowledge that, over time, become embedded as organizational routines (Grant, 1996) and are distinguished from other organizational processes by being performed well relative to rivals (Bingham, Eisenhardt, & Furr, 2007; Ethiraj et al., 2005). The DCT posits that since marketplaces are dynamic, rather than simple heterogeneity in firms' resource endowments, it is the capabilities by which firms' resources are acquired and deployed in ways that match the firm's market environment that explains inter firm performance

variance over time (Eisenhardt & Martin, 2000; Makadok, 2001; Teece, et al., 1997). Further, differences in the value of capabilities and consequently in performance are a function of firm specific investments in developing them (Ethiraj et al., 2005; Kor & Mahoney, 2005).

Teece et al., (1997), puts forward that dynamic capabilities contribute to opportunity identification (sensing) and investment in these opportunities (seizing) leading to new positions and paths, which then affects firm performance in terms of growth, profits and competitive advantage.  Research in marketing has identified the characteristics of market-oriented organizations; further links have been identified between market orientation and performance, however, the link between market orientation, firm characteristics, dynamic capabilities and performance has not been documented.

**2.8 Summary of Knowledge Gaps**

Several researchers have studied market orientation, its direct effect on performance, its mediating effect on performance and even mediating effects of other variables on the market orientation-performance relationships with mixed results. Similarly, studies testing the dynamic capability theory have had mixed findings, several studies were reviewed and the relevant ones selected and presented in Table 2.1.

**Table 2.1 Summary of Knowledge Gaps**

| Researcher (s) | Focus of the study | Methodology | Research findings | Comments/ Knowledge gaps | Focus of the current study |
|---|---|---|---|---|---|
| Shergill, G.S and Nargundkar, R (2005) | Market orientation and Marketing Innovation as performance drivers. | A survey `of 170 executives in various industries in India | Market orientation-performance effect was found to be strong in India (an emerging economy) | The Study used marketing innovation as a mediating variable. | The study focused on the mediating effect of dynamic capabilities |
| Rojas-Méndez, et al., (2006) | The relationship between market orientation and firm performance of SME's in Chile | A survey `of SMEs in Chile | Market orientation-has a positive effect on performance | The study used only perceptual measures of performance. | The study sought to incorporate both perceptual and objective performance measures |
| Hou J J (2008) | Proposed a research model of Market orientation and dynamic capabilities | Model has not been tested yet | Model has not been tested yet | Not yet tested | The present study applies Jaworski and Kohli's (1990) operationalizatio n of market orientation and the measurement scale developed by them. |

**Table 2.1: Summary of Knowledge Gaps (Cont'd)**

| Researcher (s) | Focus of the study | Methodology | Research findings | Comments/ Knowledge gaps | Focus of the current study |
|---|---|---|---|---|---|
| Morgan, Vorhies and Mason (2009) | Market orientation, marketing capabilities and firm perfomance | Based on the RBV and DCT. Mail survey of 230 firms in USA. | Market orientation requires complementary organizational capabilities if its value to the firm is to be fully realized | Focused on marketing capabilities only. | Focuses on various organizational wide capabilities. |
| Zhou, K.Z and Li, J.J (2010) | Effect of market orientation and Managerial ties on firms' achievement of Competitive Advantage in an Emerging Economy. | Based on the RBV, a survey of 179 foreign manufacturing firms in China. Used ROA to assess firm performance. | Both market orientation and managerial ties can lead to firm success.  Market orientation is desirable in order to achieve cost or differentiation advantage | The Study focused on competitive advantage and used only objective measure of performance | The study incorporates firm characteristics as moderator and includes dynamic capabilities as mediator. |
| Asikhia, O (2010) | Banks market orientation and performance relationship in Nigeria | Using the RBV, a survey of 25 banks in Nigeria. | Highly market oriented banks outperformed those with a low level of market orientation. | Ignored influence of firm characteristics | Incorporating firm characteristics. Investigates influence of dynamic capabi-ities on the relationship |

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**Table 2.1: Summary of Knowledge Gaps (Cont'd)**

| Researcher (s) | Focus of the study | Methodology | Research findings | Comments/ Knowledge gaps | Focus of the current study |
|---|---|---|---|---|---|
| Kumar et al. (2011) | Influence of Market orientation on competitive advantage | Longitudinal survey over nine years of 269 companies in USA. | Sustained advantage in business performance from having a market orientation is greater for the firms that are early to develop a market orientation. | Used subjective performance measures (Sales and Net income) only | The study uses both subjective and objective performance measures. Secondly it explores the link of dynamic capabilities and firm characteristics on this relationship |
| Adeniran T.V and Johnston, K. A. (2012) | Investigating the Dynamic capabilities and Competitive advantage of SME's | Online survey of SME's in South Africa based on the RBV. | Dynamic capabilities have a significant impact on competitive advantage. | Conceptualized competitive advantage in terms of product, behavioral and market innovation. | Incorporates firm characteristics and impact of market orientation. performance as dependent variable |

**Table 2.1: Summary of Knowledge Gaps (Cont'd)**

| Researcher (s) | Focus of the study | Methodology | Research findings | Knowledge gaps | Focus of the current study |
|---|---|---|---|---|---|
| Protogerou et al., (2012) | Exploring the link between Dynamic Capabilities and Performance | Study on 271 manufacturing firms in Greece | Dynamic Capabilities has insignificant effects on performance and that DC mediates on operational capabilities to have indirect effect on performance | Did not test the mediating effect on operational capabilities | The study explored the indirect effect of DC on performance as a mediator in a service sector. Incorporates market orientation. |
| Njeru W (2013) | Market orientation, marketing practices, firm characteristics, external environment and performance. | Based on the RBV, DCV and Industrial Organization (IO) theory. Descriptive survey of 140 Tour firms in Kenya | The study found a significant positive relationship between market orientation, marketing practices and performance. | Study used firm characteristics as independent variable  Used marketing practices as mediating variable | The study used firm dynamic capabilities which is broader than marketing practices, as mediating variable and firm characteristics as moderating variables |

Source: Researcher, 2015

## 2.9 Conceptual Framework and Hypotheses

The conceptual framework for this study was based on the reviewed theoretical models and frameworks and concludes with the study hypotheses.

### 2.9.1 Conceptual Framework

The extant literature suggests that market orientation has an impact on performance, with disparate findings on the nature of the relationship. Similarly, the Resource based view and Dynamic capabilities theory have outlined how firms achieve enhanced performance through their deployment of resources. The study hypothesized that SACCOs performance was enhanced by adopting a market orientation and that this effect was mediated by dynamic capabilities. The relationship may also be moderated by the firm characteristics. The joint effect of the moderating and intervening variables may also influence the relationship between market orientation and firm performance.

These relationships are hypothesized in line with the assertion by Makadok (2001), that no matter how outstanding company's capabilities are, they do not generate economic profits if the company fails to acquire the resources which will enhance the productivity of these capabilities. Similarly, Newbert (2008) argues that even if a company possesses resources that have the potential to create competitive advantage, that potential will not be realized if the company does not possess capabilities for resource exploitation. Figure 2.1 depicts the integration of the variables of market orientation, firm characteristics, dynamic capabilities and organizational performance in one model.

**Figure 2.1: Conceptual Model**

Moderating variable



H<sub>1</sub>

H<sub>3</sub>

**Market Orientation**

- Intelligence generation
- Intelligence dissemination
- Responsiveness to Market intelligence

**Firm Characteristics**

- Age of organization
- Size of the organization

H<sub>2</sub>

**Organizational Performance**

Financial Performance (growth in)
- Loans
- Turnover
- Savings and deposits
- Shares

Non-financial Performance
- Competitive advantage
- Market performance

H<sub>5</sub>

**Independent Variable**

**Dynamic Capabilities**

- Sensing capability
- Absorptive capability
- Integrative capability
- Innovative capability

H<sub>4</sub>

**Intervening Variable**

**Dependent Variable**

Source: Researcher

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**Figure 2.1: Conceptual Model**



Figure 2.1: Conceptual Model showing Moderating variable, Market Orientation (Independent Variable), Firm Characteristics, Dynamic Capabilities (Intervening Variable), and Organizational Performance (Dependent Variable) connected by hypotheses $H_1$, $H_2$, $H_3$, $H_4$, $H_5$.

Source: Researcher

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From the Conceptual model depicted in Figure 2.1, market orientation has an influence on performance ($H_1$) similarly firm characteristics have an effect on performance ($H_2$). Further, firm characteristics have a moderating effect on the relationship between market orientation and performance ($H_3$). Dynamic capabilities in turn mediate this relationship ($H_4$). Finally the model depicts the joint effect of dynamic capabilities and firm characteristics on the relationship between market orientation and performance ($H_5$).

### 2.9.2 Conceptual Hypotheses

As shown in Figure 2.1 the conceptual hypotheses of the study are:

Hypothesis 1: There is a relationship between Market Orientation and Organizational Performance

Hypothesis 2: There is a relationship between Firm Characteristics and Organizational Performance.

Hypothesis 3: The relationship between Market Orientation and Organizational Performance   is moderated by Firm Characteristics

Hypothesis 4: The relationship between Market Orientation and Organizational Performance is mediated by Dynamic Capabilities

Hypothesis 5: Dynamic Capabilities and Firm Characteristics jointly influence the relationship between Market Orientation and Organizational Performance

# CHAPTER THREE: RESEARCH METHODOLOGY

## 3.1 Introduction

This Chapter presents discussion on the study's research philosophical position, research design, population of the study and sampling procedure. It also covers operationalization of the study variables and concludes with an outline of the analytical methods.

## 3.2 Research Philosophy

The research philosophy that guides a study is a function of how the researcher thinks about development of knowledge. It helps the researcher conduct the study in an effective manner. There are three different philosophies that may be used as a guide by the researcher. The interpretive philosophy believes that the social world of management and business is too complex to be formulated in theories and laws such as in natural science. This approach requires the researcher to interact with the environment and seek to make sense of it through their interpretation of events thereby making it an inductive approach. According to this philosophy, there are many truths and meaning of a simple fact and these are suitable for every situation and for every research problem (Johnson & Christensen, 2010).

The realism philosophy focuses on the beliefs that reality exists in the environment. This philosophy believes in the existence of external and objective reality that influences people's social interpretations and behavior. It also believes that the human are not the

objects for the study in the style of natural science. This research philosophy also define that how individual react towards a real world situation (Johnson & Christensen, 2010).

Positivism philosophy usually adopts a deductive approach and requires that the researcher is independent of the study and that the study progresses through hypotheses and deductions. The positivists believe that only phenomena, which are observable and measurable, can be validly regarded as knowledge. Saunders (2003) observes that in this research philosophy the role of researcher is very important for the study as the researcher plays the role of an objective analyst to evaluate the collected data and produces an appropriate result in order to achieve research aims and objectives. The study was guided by the positivist perspective as it involves reporting of findings as observed so as to ensure independence of the researcher and allowing for generalization of the findings. Similarly, drawing from the positivist approach, a quantitative research was adopted in examining and testing the variables and the relationships that existed between them.

## 3.3 Research Design

In view of the research problem highlighted previously and the selected research philosophy, a descriptive cross sectional survey was considered the most suitable for achieving the research objectives. The cross sectional survey requires that variables are not manipulated by the researcher thus providing the independence required by the guiding philosophical orientation. This type of descriptive cross sectional research has been used by several researchers in various areas including that of market orientation. These include Jaworski and Kohli (1993), Thuo (2010) and Njeru (2013). Further, this

design was considered appropriate due to its versatility, admissibility of questionnaires and its leverage in collection of data from a large number of respondents in a relatively short period.

## 3.4 Population of the Study

A census study of all licensed Deposit Taking SACCOs (DTS's) was undertaken. The SACCO sub sector comprises 215 DTS's of which 184 are licensed (Appendix 2). The DTS's were selected because they were spread out across the 47 counties thus providing a relatively good representation of SACCO activity across Kenya. They also account for over 77 percent of the sub sector's deposits thereby underscoring the fact that the growth potential for the SACCOs remains in the deposit taking SACCO business (SASRA, 2013). In addition, these SACCOs were required to make public their financial statements in compliance with the regulatory body SASRA, ensuring that objective and reliable secondary data was available. Finally, they offer savings and credit facilities, a component of SACCOs under threat from other financial service providers such as commercial banks, mobile phone financial service providers and micro finance institutions thus resulting in a highly competitive operating environment suitable for testing the hypothesized relationships.

## 3.5 Data Collection

The study collected both primary and secondary data. The primary data was collected through a semi structured questionnaire (Appendix 2). The questionnaire consisted of five sections: part A collected data on firm characteristics, part B on market orientation, part

C on dynamic capabilities, part D on competitive advantage and part E on market performance. The questionnaire included a five point rating scale ranging from 1 (not at all) to 5 (to a very large extent).

Secondary data from published financial statements was used together with SASRA supervision reports to extract the relevant data on performance in terms of loan portfolio, total assets, savings deposits and shares. The respondents included any of the senior managers of the SACCO namely the general manager, marketing manager, sales manager, finance manager or their equivalent. These officers are the ones mainly involved in shaping strategic direction and choices that the SACCOs make.

## 3.6 Measurement of the Study Variables

The variables were primarily operationalized using measures developed in previous studies. The Market Orientation scale (MARKOR) Kohli and Jaworski (1990) with the main components being Intelligence generation, Intelligence dissemination and Responsiveness was applied. Dynamic Capabilities was measured using a scale adapted from Jiao et al. (2010) with four components: Sensing Capability, Absorptive Capability, Integrating Capability and Innovative Capability. Financial organizational performance was measured using the PEARLS growth indicators used by SACCOs to measure performance as provided for by WOCCU (2015).

Specifically, it employed growth indicators which measured the average growth in each of the most important accounts on the financial statement over a period of three years. The variables included turnover, loans, savings and deposits, and shares. Subjective performance measures were also used with competitive advantage being measured

through the managers' perception of the company's success in comparison to major competitors in terms of cost and differentiation advantages. Similarly, managers' were asked to rate the SACCOs market performance regarding customer satisfaction, membership growth, increased market share and overall performance.

Firm Characteristics included as study variables were firm age, firm size, and sector served. Age of the firm was assessed from the length of time in business. Firm size was based on asset size, while SACCO sector was assessed in terms of category the SACCO falls in. Operationalization of the variables and their measures is summarized in Table 3.1.

**Table 3.1: Operationalization of Study Variables**

| Variable | Components and indicators | Supporting evidence from Literature | Nature of variable | Measurement | Questionnaire items |
|---|---|---|---|---|---|
| **Market Orientation (MO)** | Intelligence generation: Sacco's efforts to engage their customers and collect information on from them and competitors | Kumar et al, (2011); Morgan et al (2009), Kaynak and Kara (2008), Qu and Ennew (2008) and Jaworski &Kohli (1990); | Independent | 5 point rating scale | Section B  Questions 1-15 |
|  | Intelligence dissemination: Sacco's efforts in engaging with each other in the firm by sharing information gathered |  |  |  |  |
|  | Responsiveness: Sacco's initiative in acting on information received to formulate or evaluate strategy |  |  |  |  |
| **Firm Characteristics (FC)** | Age of firm: No of years in operation | Kinoti (2012); Thuo (2010) Mirie (2014) | Moderating | Direct Measure | Section A  Questions 1a-e  Supplemented by secondary data from SARA |
|  | Size of firm: Total assets |  |  |  |  |
| **Dynamic Capabilities (DC)** | Sensing Capability: Sacco's efforts to monitor its environment for changes | Chang and Hou (2010); Jaio (2010) and Wang and Ahmed (2007) | Mediating | 5 point rating scale | Section C  Questions 1-19 |
|  | Absorptive Capability: Sacco's ability to exploit opportunities in the market |  |  |  |  |
|  | Integrating Capability: Ability of the Sacco to integrate inputs from different departments to come up with strategies |  |  |  |  |
|  | Innovation Capability: Sacco's ability to act on collected information to create innovative products |  |  |  |  |

| Variable | Components and indicators | Supporting evidence from Literature | Nature of variable | Measurement | Questionnaire items |
|---|---|---|---|---|---|
| **Performance (P)** | Financial performance (measured as growth in turnover, loans, savings and deposits and shares.) | Talaja (2012)Vorhies et al (2009) | Dependent | Analysis of ratios | Compiled from secondary data |
| | Non-financial performance measured by managers perception of growth in customer loyalty and customers satisfaction (Market performance) | Naidoo (2010); Chandler & Hanks (1994) and Miller (1988); | Dependent | 5 point rating scale | Section E Questions 1-4 |
| | Managers perception of SACCO's competitive advantage in terms of their differentiation and cost advantage | | Dependent | 5 point rating scale | Section D Questions 1-12 and 1-5 |

Source: Researcher, 2015

## 3.7 Reliability and Validity Tests

Reliability is concerned with estimates of the degree to which a measurement is free of random or unstable error. It relates to consistency and repeatability of the results. The reliability of the research instrument was assessed using Cronbach's alpha coefficient used to assess the degree to which the instruments items were homogenous and reflected the same underlying construct(s). The alpha coefficient normally ranges between zero and one, the closer the coefficient is to one the greater the internal consistency of the items in the scale. Literature abounds with arguments on what is an acceptable Cronbach alpha to indicate reliability of a research instrument. While Cronbach (1951) provided a limit of 0.5 as an acceptable minimum, other scholars (Nunnally, 1978; George & Mallory, 2003) advocate for 0.7 as minimum cut off point. Hair (2006) recommends a 0.6 cut off as sufficient for newer scales and 0.7 for mature scales. Although this study adopted established scales from existing literature, their use in a new context was considered as exploratory. In this regard, the study adopted a Cronbach alpha of 0.6. This is above the acceptable minimum value of 0.5 given by Cronbach (1951) as indicator of reliability.

Validity refers to the extent to which a test measures what we actually wish to measure. External validity concerns the ability of research findings to be generalized across persons, settings and times (Cooper & Schindler, 2001). Internal validity refers to the ability of a research instrument to measure what it is purported to measure. To ensure internal validity content validity and construct validity were examined. Content validity requires that a measure provides an adequate reflection of the topic under study and was

assessed through extensive literature review. Construct validity concerns the degree to which a measure conforms to predicted correlations of other theoretical propositions and was assessed using convergent and discriminant measures. Convergent validity is the degree to which two measurements that attempt to measure the same hypothetical construct are consistent with one another (Beins, 2004). It was examined through simple correlations among the components of the scale. A high correlation indicates convergence on a common construct thus providing evidence of convergent validity. Discriminant validity will be evidenced by a reflection of distinct components with very low correlation. In addition, a confirmatory factor analysis was carried out to evaluate the construct validity The questionnaires was pretested on three marketing lecturers and four SACCO managers to check for ambiguity and uncover any defects in the questions or lack of clarity in instructions. Those managers involved in the pretesting did not form part of the study population so as to avoid any assessment bias. According to Hair et al., (2007) a pretest of five to ten representative respondents is sufficient to validate a questionnaire.

## 3.8 Data Analysis

Descriptive and inferential statistics were used to analyze the data. Measures of central tendency and dispersion were used to profile the respondents. Simple and multiple linear regressions were used to test the hypotheses where coefficient of determination ($R^2$) indicates the amount of variation in the dependent variable explained by the independent variable. Moderating effects were examined using hierarchical multiple regression analysis. According to Baron and Kenny (1986), moderator variables have certain

distinctive characteristics, such as they are independent, exogenous to criterion variables, and often uncorrelated to either the predictor or the criterion variables. The moderating variable affects the direction and/or strength of the relationship between an independent variable and a dependent variable.

Further, MacKinnon (2006) provides the following steps to test for moderation. The independent variable (X) and the moderator (Z) are entered into level one of the analysis program. The interaction term (XZ) which is a product of the standardized predictor and moderator variables is then entered in step two. Moderation is indicated if the additional variance in the outcome beyond that explained by either single variable alone is significant.

The moderation model is represented as follows:

$Y = \beta_0 + \beta_1X + \beta_2Z + \beta_3XZ + e$, where $\beta_0$ is the regression constant (intercept) and $e$ the error term.

To test for mediation a series of regression equations outlined by Baron and Kenny (1986) were used. They submit that the central idea of a mediating variable is that it somehow intervenes in the transformation process between stimuli and response. Some defining characteristics of mediating variables include that the independent variable must affect the mediator (path a); the mediator must affect the dependent variable (path b); the independent variable must affect the dependent variable (path c); and that when paths a and b are controlled, path c becomes insignificant, or small (Baron & Kenny, 1986). The mediation path is depicted in Figure 3.1

**Figure 3.1 Path diagram for mediation effect of Dynamic capabilities**
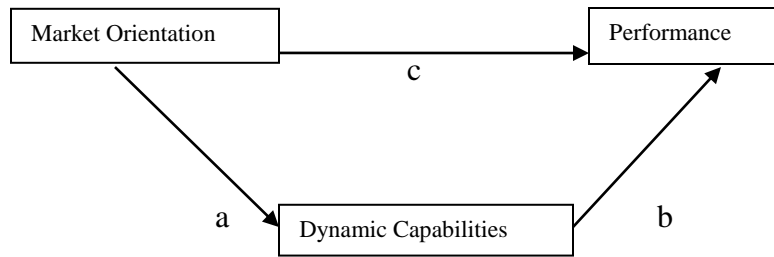


Source: Researcher (2015)

Mediation was tested through the following four steps. In step one the dependent variable Y (performance) is regressed on the independent variable X (market orientation). Step two the mediator M (dynamic capabilities) is regressed on the independent variable X (market orientation). In step three, Y is regressed on M. In each step the β coefficient is examined to determine the size and directions of the relationship, if a zero order relationship exists and is significant then proceed to next step. In step four, the dependent variable Y is regressed on X while controlling the effect of M on Y. Mediation is supported if the effect of X remains significant after controlling for M.

To determine the joint effect of market orientation, firm characteristics and dynamic capabilities on performance, hierarchical multiple regression analysis was used to test the theoretical model which involved adding the variables and joint effect terms incrementally to gauge their relative contributions to the relationship; this was in order to avoid missing out on important theoretical variables, or interactions. The hypotheses were tested at 95% confidence level ($\alpha=0.05$). The $R^2$, p- values, β coefficients and F

values were interpreted accordingly. The regression model used to test the influence of

the explanatory variables on organizational performance was as follows:

$y = \beta_0 + \beta_1 MO + \beta_2\, FC + \beta_3\, DC + e$

Where:

y = Organizational Performance

MO = Market Orientation

FC = Firm Characteristics

DC = Dynamic Capabilities

$e$ = error term

A summary of the hypotheses, analytical equations and criteria for interpreting the results

are presented in Table 3.2.

**Table 3.2: Analysis Method and Interpretation**

| Objective(s) | Hypothesis | Analysis method | Interpretation of output of the analytic method |
|---|---|---|---|
| To determine the influence of market orientation on organizational performance. | Hypothesis 1: There is a relationship between Market Orientation and Organizational Performance | Regression model<br>Performance =f ( market orientation)<br>$P = \beta_0 + \beta_{11}MO_{+} \varepsilon_1$<br>Where:<br>$P$=Performance<br>$\beta0$= regression constant ( intercept)<br>$\beta_{11}$= beta coefficient<br>MO= Composite score of Market orientation<br>$\varepsilon_{1=}$ Error term | $R^2$ to assess variability of dependent variable attributable to independent variable.<br>Coefficient is significant if p Value $\leq 0.05$ |
| To assess the effect of firm characteristics on organizational performance | Hypothesis 2: There is a relationship between Firm Characteristics and organizational Performance | Correlation analysis | Pearson's product moment correlation (r)<br>r>0 then positive relationship exists.<br>Pearson's product moment correlation (r) Where: r=+0.7 and above very strong, 0.5 -0.69 strong, 0.3 -0.49 moderate and 0.29 or less weak relationship |

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| To determine the moderating effect of firm characteristics on the relationship between market orientation and organizational Performance | Hypothesis 3: The relationship between market orientation and organizational performance is moderated by firm characteristics | Simple regression analysis<br><br>$P == \beta_{0+} + \beta_{31} MO + \beta_{32} FC + \beta_{33} FC*MO \; \varepsilon_4$<br><br>Where:<br><br>P is the composite score of Performance<br>FC = age and size<br>MO is the composite score of market Orientation | A significant change in $R^2$ after introduction of interactive term (FC) confirms moderating effect of FC. If p-value≤0.05 then moderating influence is significant |
|---|---|---|---|
| To examine the mediating effect of dynamic capabilities on the relationship between market orientation and organizational Performance | Hypothesis 4: The relationship between Market Orientation and organizational Performance is mediated by Dynamic Capabilities | Simple regression analysis<br>Step 1: $P_2 = \beta_0 + \beta_{41} MO + \varepsilon_5$<br>Step 2: $DC = \beta_0 + \beta_{42} MO + \varepsilon_6$<br>Step 3: $P_3 = \beta_0 + \beta_{43} DC + \varepsilon_7$ If a zero-order relationship exists and is significant, then proceed to step 4<br>Multiple regression analysis<br>Step 4: $P_4 = \beta_0 + \beta_{44} MO + \beta_{45} DC + \varepsilon_8$<br>where P=Composite index for Performance<br>$MO$=Composite index for Market orientation<br>$DC$=Composite index for Dynamic capabilities<br>$E_5 \ldots \varepsilon_7$ error term | Assuming there are significant relationships from step 1 to 3, then proceed to step 4.<br><br>Mediation is supported if the effect of DC remains significant after controlling for MO.<br><br>If MO is no longer significant when DC is controlled, the findings support full mediation.<br>If MO is still significant (both MO and DC both significantly predict P) the findings supports partial mediation |

| To determine the joint effect of dynamic capabilities, firm characteristics and market orientation on organizational Performance | Hypothesis 5: Market orientation, Dynamic Capabilities and  Firm Characteristics jointly affect organizational Performance | Multiple regression analysis<br><br>$P5 = \beta_0 + \beta_{51}MO + \beta_{52}DC + \beta_{53}FC + \varepsilon_9$<br><br>Where:<br><br>$P$ is a composite score for Performance<br><br>$\beta_0$ is a regression constant or intercept<br><br>$\beta_{51\text{-}53}$ are the regression coefficients<br><br>$MO$ represents composite score of  Market orientation<br><br>$DC$ represents composite score of Dynamic Capabilities | Student t- statistics to assess significance of individual variables.<br><br>F test to assess overall robustness and significance of the model. |

Source: Researcher, 2015

## 3.8 Chapter Summary

This chapter provides a discussion on the research methodology used in the study. Specifically, the following areas of the research have been delineated; the research philosophy, research design, population of the study, data collection, operationalization of research variables and data analysis methods. The chapter also presented a tabulated summary of the research objectives, their corresponding hypotheses, and analytical models.

# CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

## 4.1 Introduction

This study sought to establish the effect of market orientation, firm characteristics and dynamic capabilities on performance of deposit taking SACCOs. Primary and secondary data were collected and analyzed in order to establish the relationships that existed between the study variables. This chapter thus presents an analysis of the results highlighting the response rate, reliability and validity of the research instrument and the results of descriptive analysis.

## 4.2 Response Rate

The study was a descriptive cross-sectional survey of deposit taking SACCOs governed by the SACCO Societies Regulatory Authority (SASRA) conducted in the months of July and August 2015. The study questionnaire was sent through postal mail to 184 licensed deposit taking SACCOs using a mailing list from the regulatory body SASRA. Included with the questionnaire was a letter of introduction and a stamped and addressed mail back envelope. In circumstances where the physical address of the SACCO was known, the drop and pick method was used or stamped mail back envelopes provided for those SACCOs where a repeat visit to pick the questionnaire was not possible due to the distance. The secondary data was collected from annual supervisory reports with the help of a research assistant using a template provided by the researcher and supplemented by individual SACCO reports both obtained from SASRA.

 Although the study was intended to be a census survey of the 184 licensed deposit taking SACCOs in Kenya, the survey received a response from 78 SACCOs representing a response

rate of 42.4 percent.  This response rate was comparable to similar studies using mail survey conducted by Hilman (2014) 24 percent; Mahmoud (2011) 31.83 percent; and Julian (2010) 19.38 percent. Hager et al. (2003) in a review on response rates for mail surveys observed that surveys of organizations typically receive substantially lower return rates than surveys of individuals, with 15% return rates sometimes reaching a level of acceptability for organizational surveys. He further observed that although mailed questionnaires are the least expensive method in terms of time and money, they typically yielded the lowest return rates. Similarly, Baruch and Holton (2008) while examining the response rates for surveys used in organizational research found that the average response rate for studies that utilized data collected from individuals was 52.7 percent, while the average response rate for studies that utilized data collected from organizations was 35.7 percent.

**4.3 Reliability and Validity Tests**

**4.3.1 Reliability Tests**

Reliability is concerned with estimates of the degree to which a measurement is free of random or unstable error. It relates to consistency and repeatability of the results. The reliability of the measurement scales was assessed by computing Cronbach's alpha coefficient. The results of the reliability tests are presented in Table 4.1

**Table 4.1 Summary of Reliability Tests on Study Variables**

| Description | Cronbach Alpha | Number of Items |
|---|---|---|
| **Market Orientation** | .666 | 19 |
| **Dynamic Capabilities** | .813 | 19 |
| **Non-Financial Organizational Performance** | .554 | 19 |
| **Overall** | .795 | 57 |

Source: Primary Data

Table 4.1 shows that the highest reliability was observed in the dynamic capabilities construct at .813 while the lowest alpha was observed in non-financial organizational performance which was .554. The overall reliability at .795 was found to be good.

**4.3.2 Validity Tests**

Construct validity was assessed using a factor analysis in order to observe how well the individual measures reflected their constructs. The factors were rotated using the Varimax rotation method while Principal Component Analysis method was employed to extract the factors. All the variables in the study were found to be uni-dimensional and valid indicators of the constructs they were to measure. The relevant results are summarized in Appendix 3.

**4.4 Tests of Assumptions**

In order to ensure that the assumptions of parametric data analysis were met before the data was subjected to further analysis, the normality, multicolinearity and homogeneity of the data were tested. The findings are presented hereafter.

**4.4.1 Normality**

According to Ghasemi and Zahediasl (2012) the assumption of normality needs to be checked before carrying out many statistical procedures, namely parametric tests, because their validity depends on it, if the test is significant, the distribution is non-normal. However, Elliot (2007) and Pallant (2007) argued that for sample sizes greater than 30 to 40 the violation of the normality assumption should not cause major problems, suggesting that use of parametric procedures can be used even when data is not normally distributed. This supports the views given by Ozotuna et al. (2006) that for large sample sizes, significant results would be

derived even in the case of a small deviation from normality. Normality was tested using the Shapiro-Wilk test (1965). The results are contained in Table 4.2

**Table 4.2 Test of Normality using Shapiro-Wilk Test Statistic**

|  | Shapiro-Wilk | | |
|---|---|---|---|
|  | Statistic | df | Sig. |
| Market orientation | .979 | 72 | .270 |
| Firm characteristics | .952 | 72 | .008 |
| Dynamic capabilities | .959 | 72 | .019 |
| Non-financial performance | .975 | 72 | .153 |
| Financial performance | .924 | 66 | .001 |

Source: Primary Data

The Shapiro-Wilk test is used to test the null hypothesis that the data comes from a normally distributed population. The alternate hypothesis is therefore that the data comes from a population that is not normally distributed. Consequently, if the results of either test are significant (e.g. $p<0.05$) then the null hypothesis is rejected thus rejecting the assumption of normality for the distribution. The p values for market orientation and total non-financial performance were above 0.05 hence they were considered normal distributions. However, the p values for firm characteristics and financial performance at p value= .008 and .001 respectively were found not to be normally distributed due to the inherent variability in their indicators.

Field (2013) recommends that since the Shapiro-Wilk test is sensitive to small sample size, it is advisable that the test is supplemented by a visual inspection of histograms or Q-Q (quantile-quantile) plots. These plots are presented in Figure 4.1

**Figure 4.1 Q-Q plot of Market Orientation**
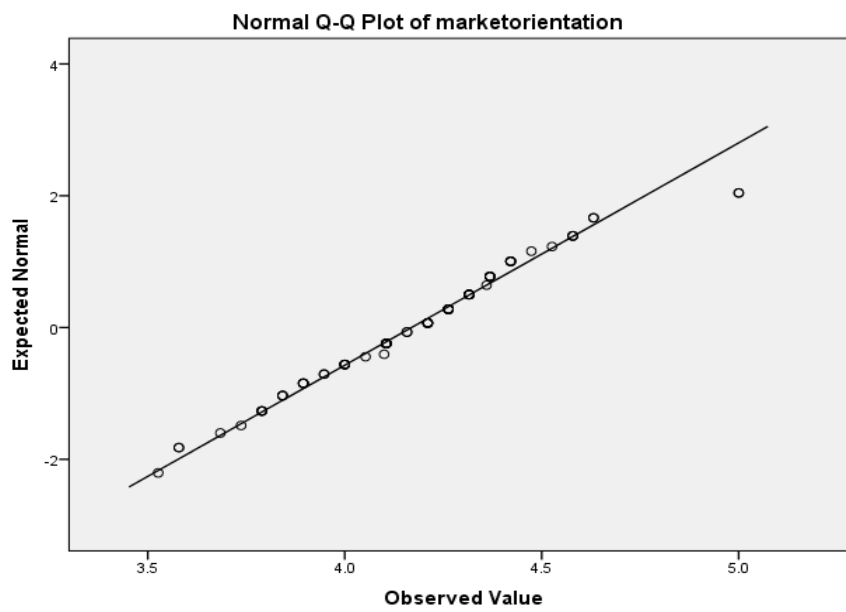


Source: Primary Data

**Figure 4.2 Q-Q plot of Dynamic capabilities**
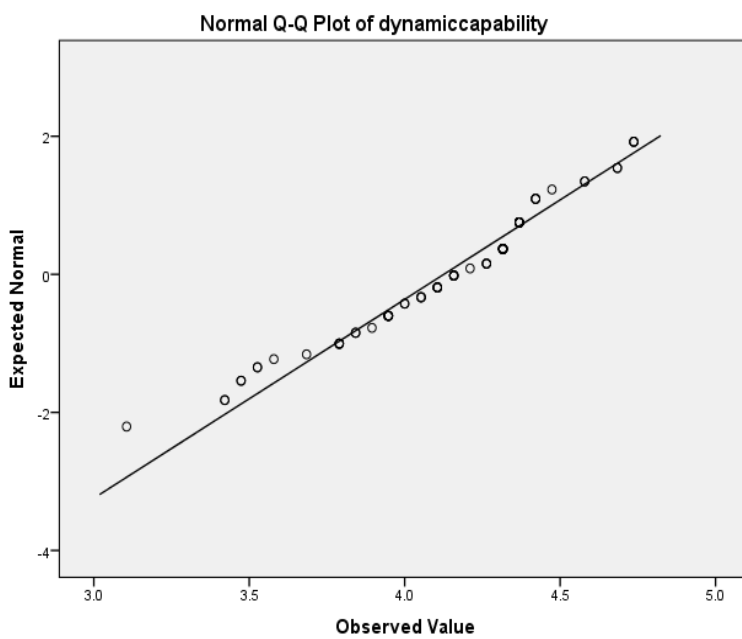


Source: Primary Data

Figure 4.3 Q-Q plot of Total Non-Financial Performance
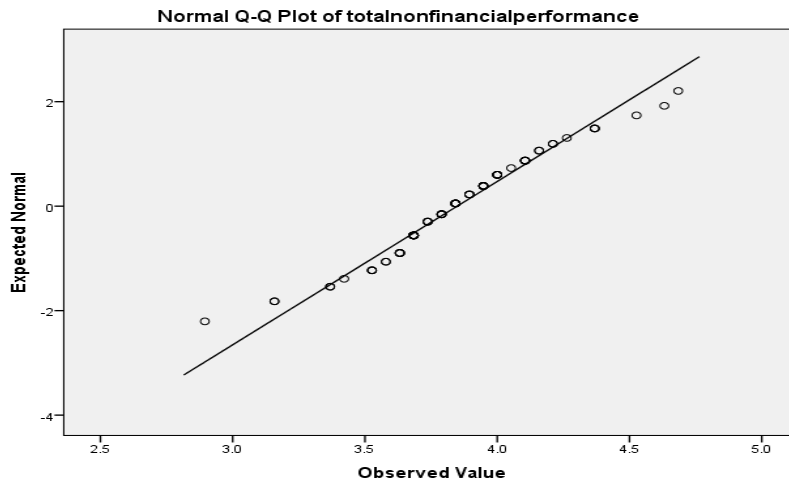


Source: Primary Data

For each of the variables the observed values were found to merge along the line of best fit on the Q-Q plot implying that the data approached normality. Outliers were investigated and corrected or eliminated were necessary.

## 4.4.2 Multicollinearity

Multicollinearity was tested by computing Variable Inflation Factors (VIF) and accompanying Tolerance tests. The maximum VIF threshold indicating no multicollinearity is 10 (Robinson & Schumacker, 2009). The VIF values of the study variables ranged from 1.003 to 1.275, way below the recommended threshold thus showing that multicollinearity was not displayed in the data set. Similarly the recipricol of the VIF termed tolerance was calculated. The tolerance threshold values should be above 0.2, if tolerance of one of the variables is equal or less than 0.2 then collinearity is present. The results are displayed in Table 4.3.

**Table 4.3 Multicollinearity Test Coefficients**

| Model | | Collinearity Statistics | |
|---|---|---|---|
| | | Tolerance | VIF |
| | Market Orientation | .785 | 1.275 |
| 1 | Dynamic Capabilities | .787 | 1.271 |
| | Firm Characteristics | .997 | 1.003 |

a. Dependent Variable: Organizational performance

Source: Primary Data

As observed in Table 4.3 the tolerance values were all above 0.2 therefore the assumption of non-existence of multicollinearity was not violated.

**4.4.3 Homogeneity Test**

Homoscedasticity is the assumption that the variance around the regression line is the same for all values of the predictor variable. If the standard deviations are different from each other (Heteroscedastic), the probability of obtaining a false positive result even though the null hypothesis is true may be greater than the desired alpha level (McDonald, 2014). The study used the Levene test to test for homogenity of the variances. If the Levene statistic is significant at $\alpha= 0.05$ then the data groups lack equal variances (Gastwirth et al., 2009). The results are summarized in Table 4.4.

**Table 4.4 Test of Homogeneity of Variances**

|  | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|
| Market Orientation | .560 | 5 | 58 | .730 |
| Dynamic Capabilities | .490 | 5 | 58 | .782 |
| Non-financial Organizational Performance | 1.386 | 5 | 58 | .243 |
| Firm Characteristics | .749 | 5 | 58 | .590 |

Source: Primary Data.

The results in Table 4.4 show that all the variables had significant levene statistics therefore the assumption for homogeneity was not violated and the resulting statistical tests results are valid.

## 4.5 Profile of Respondent SACCO's

The study sought to understand the profiles of the SACCOs using descriptive statistics. The SACCOs were assessed in terms of number of years in service, number of members, Category and size by assets. Frequencies and means were then used to evaluate each attribute.

### 4.5.1 Respondents by Category

SACCO's are divided into various categories which are determined by the rooting of their common bond. The common bond may be due to having the same employer, close geographical location, similar economic activity, similar religious belief, or belonging to one social organization. The distribution of respondents by category is presented in Table 4.5.

**Table 4.5 Distribution of SACCOs by Category**

|  | Frequency | Percent |
|---|---|---|
| Government based | 20 | 25.6 |
| Farmer based | 23 | 29.5 |
| Teacher based | 13 | 16.7 |
| Private firm based | 22 | 28.2 |
| Total | 78 | 100.0 |

Source: Primary Data

Table 4.5 shows that 29.5 percent of the respondents were from farmer based SACCOs followed by 28.2 percent who were from the private firms. The least represented category was teacher based SACCOs which had a representation of 16.7 percent. This shows that all the sectors as provided by the regulatory body SASRA were represented. Due to increased competitive pressure and the need to open new opportunities for growth SACCOs have been rebranding and opening up the common bond meaning they can attract membership from other sectors. These categories are therefore likely to change in the future (SASRA, 2013).

**4.5.2 Distribution of Respondents by Number of Members**

SACCOs are member driven, thus membership is significant because it is a determinant of the economic viability of the SACCO. The distribution of respondents by membership is summarized in Table 4.6

**Table 4.6 Distribution of Respondents by Membership**

| Number of Members | Frequency | Percent |
|---|---|---|
| 0 to 15,000 | 10 | 12.8 |
| 15,001 to 30,000 | 22 | 28.2 |
| 30,001 to 45,000 | 12 | 15.4 |
| 45,000 to 60,000 | 6 | 7.7 |
| 60,001 and above | 28 | 35.9 |
| Total | 78 | 100.0 |

Source: Primary Data

As shown in Table 4.6 more than one third (43.6%) of the respondent SACCOs had a membership of more than 45,000 while 12.8 percent had a membership of below 15,000. The results imply that majority of the SACCOs are relatively large in terms of membership.

### 4.5.3 Distribution of Respondents by Age

Age was measured by the number of years the SACCO had been in service. Age of an organization is likely to have implications on its performance. Indeed, one of the central needs of all organizations is adapting to change, both internal and external. Organizations that not only survive but prosper in a changing environment are likely to achieve increasing visibility and legitimacy within their communities (RAND Cooperation, 2015). The pertinent data on age of the SACCO is contained in Table 4.7

**Table 4.7 Number of years SACCO has been in Service**

| Years in service | Frequency | Percent |
|---|---|---|
| 0-10 years | 2 | 2.6 |
| 11-20 years | 12 | 15.4 |
| 21-30 years | 23 | 30.8 |
| 31-40 years | 26 | 33.3 |
| Above 40 years | 14 | 17.9 |
| Total | 78 | 100.0 |

Source: Primary Data

The results in Table 4.7 show that 2.6 percent of the respondents had been in service for less than ten years. The largest proportion of the respondents had been in service for more than 30 years, they collectively formed 51.2 percent of the respondents. While a combined total of 82

percent of the respondents had been operational for over 20 years. This reflects the SACCOs ability endure the changes in the environment.

### 4.5.4 Distribution of Respondents by Size

Size was measured using total assets which were considered a good indicator of the variability within the SACCO subsector. Those SACCOs with a large asset base are expected to perform better than those with a small asset base. The results are summarized in Table 4.8

**Table 4.8 Distribution of Respondents by Asset size**

|  | Asset size (Kshs) | Frequency | Percent |
|---|---|---|---|
| Small size | Below 1 billion | 36 | 46.2 |
| Medium size | >1< 4 billion | 27 | 34.6 |
| Large size | Above 4 billion | 9 | 11.5 |
| Total |  | 78 | 100.0 |

Source: Primary Data

The results in Table 4.8 show that 46.2 percent of the respondents comprised of SACCOs with an asset base valued at below 1 billion while large sized SACCOs were 11.5 percent of the respondents. This distribution is consistent with the market share distribution observed by SASRA whereby fifteen SACCOs are categorized as large compared to forty one and seventy nine categorized as medium and small sized SACCOs respectively (SASRA, 2013). However the large SACCOs though few account for over 50 percent of the assets and deposits of the licensed deposit taking SACCOs (SASRA, 2013).

**4.5.5 Distribution of Respondents by Asset Size and Total Growth**

The size of assets that an organization has is expected to be reflective of its performance. Data on asset size and total growth in turnover, deposits and loans was obtained from secondary data and the findings are contained in Table 4.9

**Table 4.9 Distribution of Respondents by Asset Size and Percentage Growth**

| Size by Assets (Kshs) | Total growth in( turnover, deposits and loans) | | | | | | Total |
|---|---|---|---|---|---|---|---|
| | below 0 | 0-5 percent | 6-10 percent | 11-15 percent | 16-20 percent | 21 percent and above | |
| <1billion | 8 | 3 | 7 | 7 | 3 | 2 | 30 |
| >1billion<4billion | 3 | 2 | 6 | 7 | 4 | 3 | 25 |
| >4billion | 0 | 1 | 1 | 3 | 3 | 1 | 9 |
| **Total** | **11** | **6** | **14** | **17** | **10** | **6** | **64** |

Source: Primary Data

As shown in Table 4.9 majority of the SACCOs 17 / (26.6) percent of the respondents grew by between 11 to 15 percent between the years 2011 to 2013. Conversely, 17.2 percent recorded negative growth. A large proportion (73%) of the negative growth was recorded by SACCOs with a small asset base. The relationship between asset size and total growth was assessed using the Chi-square test. The pertinent results are presented in Table 4.10

**Table 4.10: Results of Chi-square test on Asset Size and Average Growth in Deposit Taking SACCOs**

| Chi-Square Tests | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 7.312[a] | 10 | .696 |
| Likelihood Ratio | 8.427 | 10 | .587 |
| Linear-by-Linear Association | 5.172 | 1 | .023 |
| N of Valid Cases | 64 | | |

Source: Primary Data

The results presented in Table 4.10 demonstrate that the association between asset size and total growth is not significant with a Pearson Chi-Square value of 7.312 at p=0.696. This means that high growth is not dependent on size of assets of the SACCO.

## 4.6 Descriptive Statistics for Market Orientation

The study sought to find out the degree of market orientation of participating SACCOs. The respondents were asked to rate the extent to which they agreed with several statements concerning activities their organizations engaged in so as to gauge their level of market orientation. The questions covered three variables that according to Jaworski and Kohli (1993) contributed to a market orientation. The variables contained question items relating to market intelligence gathering activities, market intelligence dissemination activities and responsiveness to the intelligence gathered. These variables were measured using a 5 point rating scale ranging from 1 representing not at all to 5 representing to a very large extent. The SACCOs market orientation score was then computed from the average mean score of all the three variables. Market intelligence generation assesses the organizations practice of information gathering activities. The findings are presented in table 4.11

**Table 4.11 Mean Scores and Standard Deviations of Market Intelligence Generation**

| | Market Intelligence Generation | N | Mean Score | Std. Deviation | Cv % |
|---|---|---|---|---|---|
| 1 | We meet with customers at least once a year to find out what products/services they will need in the future | 78 | 4.09 | 0.84 | 21 |
| 2 | We carry out in-house market research on our customers and also use externally sourced data | 78 | 4.00 | 1.45 | 36 |
| 3 | We survey customers at least once a year to assess the quality of our products/services | 78 | 4.53 | 0.908 | 20 |
| 4 | We often engage with those who can influence our clients uptake of products /services | 78 | 3.87 | 0.998 | 26 |
| 5 | Intelligence on our competitors is generated independently by several departments | 78 | 4.51 | 0.802 | 18 |
| 6 | We periodically review the likely effect of changes in our business environment (e.g., regulations) on customers | 78 | 4.6 | 0.671 | 15 |
| | **Overall Score** | **78** | **4.26** | **0.454** | **10** |

Source: Primary Data

The results indicate that reviewing the effect of changes in the environment on customers (Mean score = 4.6), surveying customers to assess quality of products or services (Mean score = 4.53) and generating intelligence independently (Mean score = 4.51) were key areas of focus for majority of the organizations. The highest dispersion in responses (36%) was observed in item 2 where firms declared whether they carried out in house research on their customers. This implied that in house research was rarely carried out by a number of SACCOs yet was of importance to others. The comparatively lower rating (Mean score = 3.87) regarding the practice of engaging with those who influence uptake of our products or services may be reflective of the reliance on the common bond to encourage product uptake.

The overall mean score = 4.26 with Cv=10 indicates that majority of the SACCOs had a high market intelligence generation rating.

Market intelligence dissemination activities reflect the organizations efforts at sharing out information gathered within key departments. Respondents were asked to whether their organizations engaged in activities that promoted market intelligence dissemination. The pertinent results are presented in Table 4.12

**Table 4.12: Mean Scores and Standard Deviations of Market Intelligence Dissemination**

|  | **Market Intelligence Dissemination** | **N** | **Mean Score** | **Std. Deviation** | **Cv %** |
|---|---|---|---|---|---|
| 1 | We have interdepartmental meetings at least once a quarter to discuss market trends and developments | 78 | 4.73 | 0.475 | 10 |
| 2 | Marketing personnel allocate time for discussing customers' future needs with other functional departments | 78 | 4.68 | 0.57 | 12 |
| 3 | We periodically circulate documents (e.g., reports, newsletters) that provide information on our customers to other department | 78 | 4.62 | 0.649 | 14 |
| 4 | When something important happens to a major customer or market, various functional departments  know about it in a short time | 78 | 4.71 | 0.459 | 10 |
| 5 | Data on customer satisfaction is disseminated on a regular basis | 78 | 4.54 | 0.678 | 15 |
| 6 | When one department finds out something important about competitors, it is slow to alert other departments | 78 | 3.49 | 0.734 | 21 |
| 7 | For one reason or another, we tend to ignore changes in our customers' product/service needs | 78 | 3.64 | 0.805 | 22 |
| 8 | **Overall  Score** | **78** | **4.34** | **0.370** | **8** |

Source: Primary Data

The results in Table 4.12  show that the highest ranked item  in intelligence dissemination was item 1 regarding whether the SACCO held departmental meetings regularly to discuss market trends which had a  mean score = 4.73. This was followed and related with item 4 which focused on the organizations ability to share information on major changes to other departments in a short time. These two items reflected the organizations efforts at disseminating information rapidly. These activities were further supplemented by circulation

of useful documents on customers to other departments which was reflected in item 3 (Mean score = 4.62) and item 5 (Mean score = 4.54). This variable therefore demonstrated the overall departmental connectedness that existed within these organizations which can be observed in the relatively low dispersion in the respondents' views across the board. This is also supported by the high rating observed in the overall mean score on market intelligence dissemination = 4.267

Responsiveness to market intelligence assessed the organizations ability to exploit the information gathered. It assessed the relative speed with which information received was acted upon relative to competitors and the organizations monitoring of competitor activity. The results are displayed in Table 4.13

**Table 4.13 Mean Scores and Standard Deviations of Responsiveness to Market Intelligence**

| | Responsiveness to Market Intelligence | N | Mean score | Std. Deviation | Cv % |
|---|---|---|---|---|---|
| 1 | It takes us forever to decide how to respond to competitor price changes | 78 | 3.69 | 0.744 | 20 |
| 2 | For various reasons, we tend to ignore changes in our customers' product/service needs | 78 | 3.63 | 0.686 | 19 |
| 3 | We periodically review our product/service development efforts to ensure that they are in line with what customers want. | 78 | 3.54 | 0.618 | 17 |
| 4 | If a major competitor were to launch an intensive campaign targeted at our customers, we would implement an immediate response. | 78 | 3.72 | 0.754 | 20 |
| 5 | Customer complaints fall on deaf ears in this business unit | 78 | 3.95 | 0.754 | 19 |
| 6 | Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion | 78 | 4.76 | 0.488 | 10 |
| | **Overall Score** | **78** | **3.88** | **0.4297** | **11** |

Source: Primary Data

The results in Table 4.13 show that the highest mean score in responsiveness to intelligence was obtained from Item 6 which assessed the respondents ability to implement their marketing plans derived from the information gathered in a timely version (Mean Score = 4.76) . These findings imply that majority of the firms made an effort to implement whatever strategies and plans that were proposed, on time.

The overall mean scores of the market orientation variables is displayed in Table 4.14

**Table 4.14 Overall Mean scores and  Standard deviations of the Market Orientation**

**variables**

| | Market Orientation | N | Mean Score | Std. Deviation | Cv % |
|---|---|---|---|---|---|
| 1 | Market Intelligence generation | 78 | 4.26 | 0.454 | 10 |
| 2 | Market Intelligence dissemination | 78 | 4.34 | 0.370 | 8 |
| 3 | Responsiveness to Market Intelligence | 78 | 3.88 | 0.429 | 11 |
| | **Overall  Score** | **78** | **4.16** | **0.290** | **6.9** |

Source: Primary Data

 From Table 4.14 It is observed that responsiveness to intelligence recorded the lowest mean scores amongst the variables measuring market orientation at mean score = 3.88 indicating that the deployment of a market orientation was a limiting factor. The highest mean score =4.34 was observed in market intelligence dissemination activities which demonstrates that these activities are largely carried out by most of the respondent SACCOs. In order to determine the magnitude and direction of the relationships between the market orientation variables a correlation analysis was carried out and is presented in Table 4.15

**Table 4.15 Correlation matrix of Market Orientation variables**

| | | | 1 | 2 | 3 |
|---|---|---|---|---|---|
| 1 | Market Intelligence Generation | Pearson Correlation | 1 | | |
| | | Sig. (2-tailed) | | | |
| 2 | Market Intelligence Dissemination | Pearson Correlation | .038 | 1 | |
| | | Sig. (2-tailed) | .757 | | |
| 3 | Responsiveness to Market Intelligence | Pearson Correlation | .273* | .090 | 1 |
| | | Sig. (2-tailed) | .024 | .463 | |
| | *. Correlation is significant at the 0.05 level (2-tailed). | | | | |

Source: Primary Data

From Table 4.15 we observe a positive correlation between all the variables with a moderate but significant correlation being between market intelligence generation and responsiveness to market intelligence at r = 0.273 and p = 0.024. This implies that SACCOs are likely to respond to the intelligence generated on their members; however the low correlation between market intelligence generation and its dissemination may mean that this information is hardly shared between departments and this could be the limiting step in responsiveness. It also indicates that the two variables measure distinctly different activities.

## 4.7 Descriptive statistics for Dynamic Capabilities

Dynamic capability was hypothesized as the mediating variable in the model and was measured using four variables, sensing capability, absorptive capability, innovative capability and integrative capability. Participants were asked to rate the extent to which they felt their SACCOs engaged in activities that represented each of these capabilities. The results are presented in Table 4.16

**Table 4.16 Mean Scores and Standard Deviations of Sensing Capability**

| | Sensing Capability | N | Mean Score | Std. Deviation | Cv % |
|---|---|---|---|---|---|
| 1 | We frequently scan the environment to identify new business opportunities | 78 | 4.69 | 0.651 | 14 |
| 2 | We periodically review the likely effect of changes in our business environment on customers | 78 | 4.69 | 0.61 | 13 |
| 3 | We often review our product development efforts to ensure they are in line with what the customers want | 78 | 4.78 | 0.446 | 9 |
| 4 | We devote a lot of time implementing ideas for new products and improving our existing products | 78 | 4.68 | 0.655 | 14 |
| | **Overall Score** | **78** | **4.71** | **0.519** | **11** |

Source: Primary Data

The results in Table 4.16 show that the SACCOs demonstrated a high sensing capability with overall mean score = 4.71. Item 4 regarding review of product development to meet customer's needs was ranked highest with a mean score = 4.78. The findings also reveal that scanning the environment the environment for business opportunities (Mean score = 4.69) and reviewing the effect of these changes on their customers (Mean score = 4.69) were also important activities conducted by SACCOs to keep in touch with changes in their environment.

The mean scores and standard deviations on Absorptive capability are presented in Table 4.17

**Table 4.17 Mean Scores and Standard Deviations of Absorptive Capability**

| | Absorptive Capability | N | Mean Score | Std. Deviation | Cv % |
|---|---|---|---|---|---|
| 1 | We are quick to recognize shifts in our market (e.g. competition, regulation , demography) | 78 | 4.73 | 0.638 | 13 |
| 2 | It is difficult for our firm to grasp opportunities from new external knowledge | 78 | 4.6 | 0.827 | 18 |
| 3 | We quickly analyze and interpret changing market demands | 78 | 3.04 | 0.813 | 27 |
| 4 | We often seek to exploit new knowledge acquired by the firm | 78 | 2.94 | 0.902 | 31 |
| | **Overall Score** | **78** | **3.83** | **0.548** | **14** |

Source: Primary Data

From Table 4.17 we observe that there was a general lack of agreement among the respondents regarding their absorptive capability. Item 4 which was investigating the SACCOs ability to exploit new knowledge had the lowest mean score = 2.94 of absorptive capability items. This indicates that majority of the respondents were not sure if they exploited new ideas, this is also shown by the high dispersion (CV = 31%) indicated for this item. However, when asked about the extent to which they recognized shifts in their market the respondents scored relatively highly with mean score of 4.73. This implies that though aware of the changes in the environment, response to these changes was slow which confirms the observations in the responsiveness to market intelligence measure. The overall mean score for absorptive capability was = 3.83 which was indicates that to a moderate extent they have an absorptive capability.

 The descriptive results for Innovation capability are displayed in Table 4.18

**Table 4.18 Mean Scores and Standard Deviations of Innovation Capability**

| | Innovation Capability | N | Mean score | Std. Deviation | Cv % |
|---|---|---|---|---|---|
| 1 | We frequently try out new ideas | 78 | 2.85 | 0.941 | 33 |
| 2 | We seek out new ways to do things | 78 | 2.81 | 0.994 | 35 |
| 3 | Our firm is creative in its methods of operation | 78 | 3.59 | 0.763 | 21 |
| 4 | Our firm is often the first to market with new products and services | 78 | 3.79 | 0.727 | 19 |
| 5 | Innovation in our firm is perceived as too risky and is resisted | 78 | 4.17 | 0.692 | 17 |
| 6 | Our new product introduction has increased over the last 5 years | 78 | 4.5 | 0.598 | 13 |
| 7 | Our firm can launch new products/ services faster than our competitors | 78 | 4.55 | 0.573 | 13 |
| | **Overall Score** | **78** | **3.71** | **0.436** | **11** |

Source: Primary Data

Table 4.18 represents the responses on question items to measure innovation capability. The overall mean score at 3.71 with a CV = 11 percent indicates that the SACCOs have a moderate innovation capability. The relatively low mean scores observed in the measure of the SACCOs frequency of trying out new ideas (Mean score = 2.85, CV = 35%) and trying out new ways to do things (Mean score = 2.81, CV =33%) imply that the respondents' were not in agreement regarding their ability to invest much effort towards developing new products. Never the less the respondents indicated that their ability to launch new products faster than competitors (Mean score = 4.55) and introduction of new products in the market (Mean score 4.50) was relatively high.

**Table 4.19 Mean Scores and Standard Deviations of Integrative Capability**

|  | Integrative Capability | N | Mean score | Std. Deviation | Cv % |
|---|---|---|---|---|---|
| 1 | We are willing to take technology related risk | 78 | 4.51 | 0.597 | 13 |
| 2 | We carefully inter relate our actions to each other to meet changing conditions | 78 | 4.5 | 0.575 | 13 |
| 3 | We successfully combine newly acquired knowledge with existing knowledge | 78 | 4.54 | 0.574 | 13 |
| 4 | We are able to use the new combined knowledge for new commercial or knowledge outputs | 78 | 4.51 | 0.597 | 13 |
|  | **Overall  Score** | **78** | **4.51** | **0.550** | **12** |

Source: Primary Data

The results of the descriptive analysis on responses regarding integrative capability in Table 4.19 showed that majority of the respondents felt that they were willing to take technology related risk (Mean score = 4.51) and successfully combine newly acquired knowledge with existing knowledge. With regard to their ability to put the new knowledge to commercial gain, the respondents were in general agreement that to a great extent this was so (Mean score = 4.51). Similarly, the overall mean score for integrative capability at 4.51 indicated that the respondents were in agreement that they exhibited activities that contributed towards a high integrative capability.

Overall results for dynamic capabilities indicate that the highest mean score was recorded in sensing capability at 4.7115 with a CV of 11% indicating a general consensus among the respondents regarding their sensing capability. The lowest mean was observed in innovative capability at 3.7509 CV= 11 meaning there was a general consensus that SACCOs did not rate highly in this capability compared to the other capabilities. The highest CV was observed with absorptive capability at 14% indicating that there was greater variability among the respondents regarding this variable. The overall mean for dynamic capabilities was 4.2188

with a CV of 7 meaning that to a great extent the SACCOs possess these dynamic capabilities and there was a general agreement among the respondents. The t-statistic for overall dynamic capabilities was 113.830 and this was significant at the 0.05 level. The overall mean scores of the dynamic capabilities variables is presented in Table 4.20

**Table 4.20: Overall Mean scores and Standard deviations of Dynamic Capabilities variables**

|   | Dynamic capabilities | N | Mean Score | Std. Deviation | Cv % |
|---|---|---|---|---|---|
| 1 | Sensing Capability | 78 | 4.71 | 0.519 | 11 |
| 2 | Absorptive Capability | 78 | 3.83 | 0.548 | 14 |
| 3 | Innovative Capability | 78 | 3.71 | 0.436 | 11 |
| 4 | Integrative Capability | 78 | 4.51 | 0.550 | 12 |
|   | **Overall Score** | **78** | **4.13** | **0.338** | **8.2** |

 Source: Primary Data

From Table 4.20 it is observed that sensing capability had the highest mean score = 4.71 followed by integrative capability mean score = 4.51 this indicates that to a large extent the respondent SACCOs had these capabilities. The lowest mean was observed in Innovative Capability mean score = 3.71with Cv = 11 which implies that SACCO managers need to invest in developing this capability. A correlation analysis was carried out on the dynamic capabilities variables and the results are presented in Table 4.21

**Table 4.21 Correlation of the Dynamic Capabilities variables**

| | | | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| 1 | Sensing Capability | Pearson Correlation | 1 | | | |
| | | Sig. (2-tailed) | | | | |
| 2 | Absorptive Capability | Pearson Correlation | .357** | 1 | | |
| | | Sig. (2-tailed) | .003 | | | |
| 3 | Innovative Capability | Pearson Correlation | .219 | .452** | 1 | |
| | | Sig. (2-tailed) | .073 | .000 | | |
| 4 | Integrative Capability | Pearson Correlation | .134 | .029 | .470** | 1 |
| | | Sig. (2-tailed) | .276 | .814 | .000 | |
| | **. Correlation is significant at the 0.01 level (2-tailed). | | | | | |

Source: Primary Data

All the relationships were positive with moderate correlation being observed between integrative capability and innovative capability at r = 0.470 while a low relationship was noted between integrative capability and sensing capability at r = 0.134 both relationships were found to be significant at p=0.0001. Sensing capability was however found to have a mild correlation with absorptive capability at r = 0.357, p=0.001 this relationship is supported by the need for absorptive capability to take in external knowledge, combine it with internal knowledge and absorb it for internal use. The correlation between the dynamic capabilities variables supports earlier postulations that the variables are correlated though differ in conceptuality (Wang, 2010)

## 4.8 Descriptive statistics for Non-Financial Organizational Performance

Non-financial organizational performance was measured using two subjective indicators competitive advantage and market performance. Competitive advantage was assessed using differentiation efforts made by the SACCOs and cost leadership initiatives, while market

performance gauged respondents' perception regarding customer loyalty and satisfaction. The findings concerning differentiation are presented in Table 4.22

**Table 4.22: Mean Scores and Standard Deviations of Differentiation**

| | Differentiation | N | Mean score | Std. Deviation | Cv % |
|---|---|---|---|---|---|
| 1 | We are constantly investing in generating new capabilities that give us an advantage compared to our competitors | 78 | 4.46 | 0.697 | 15 |
| 2 | If ever there was a new way of serving customers, our firm would be able to offer that | 78 | 3.56 | 0.766 | 21 |
| 3 | We offer products and/or services with distinctly different features from those of competing products | 78 | 3.86 | 0.552 | 14 |
| 4 | We are first to market with new products, services or delivery methods | 78 | 3.47 | 0.716 | 20 |
| 5 | In our market we are not recognized as innovation leaders | 78 | 3.50 | 0.734 | 20 |
| 6 | Customers view us as an innovative firm. | 78 | 3.86 | 0.528 | 13 |
| 7 | It is difficult for our competitors to imitate us | 78 | 3.71 | 0.584 | 15 |
| 8 | It took us several years to build our brand name reputation- nobody can easily copy that | 78 | 4.01 | 0.497 | 12 |
| 9 | Our advantages are embodied in the company and not in individuals- nobody can copy us by stealing our employees away from us | 78 | 4.32 | 1.051 | 24 |
| 10 | Nobody can copy our corporate routines, processes and culture | 78 | 4.03 | 0.882 | 21 |
| 11 | Our customer engagement approaches have gained recognition in the market | 78 | 4.12 | 1.081 | 26 |
| | **Overall Score** | **78** | **3.89** | **0.361** | **9** |

Source: Primary Data

The results displayed in Table 4.22 show that the highest scored item was regarding the SACCO constantly investing in generating new capabilities that give an advantage compared to competitors with mean score = 4.46. There was also agreement about the embodiment of their advantages in the company thus securing them from competitors Mean score = 4.32. The respondents were not in agreement with regards to their views on gaining recognition in the market through their customer engagement approaches with mean score = 3.65 and CV =

34 %. This implies that organizations do not differentiate their approaches to the customers and use a one size fits all approach. The study findings regarding cost leadership are displayed in Table 4.23

**Table 4.23:  Mean Scores and Standard Deviations of Cost Leadership**

| | Cost Leadership | N | Mean score | Std. Deviation | Cv % |
|---|---|---|---|---|---|
| 1 | We offer  lower transaction costs than our competitors | 78 | 4.12 | 1.081 | 26 |
| 2 | We offer  competitively priced products and services | 78 | 4.08 | 0.95 | 23 |
| 3 | We enjoy a lower cost advantage than our competitors | 78 | 3.88 | 1.195 | 31 |
| 4 | Our efficient internal operation system has decreased the cost of our products and services. | 78 | 3.95 | 1.138 | 29 |
| 5 | Our economy of scale enables us to achieve a cost advantage. | 78 | 3.65 | 1.247 | 34 |
| | **Overall  Score** | **78** | **3.89** | **0.725** | **18** |

Source: Primary Data

The results for mean scores on cost leadership displayed in Table 4.23 reveal that this strategy was used moderately. This is evidenced by the coalescing of views around the 3.5 mark with mean scores ranging from 3.65 to 3.88 for most of the items. When respondents were asked to rate whether their transaction costs were lower compared to competitors, they were in agreement that to a large extent this was so. When asked to rate whether their economy of scale enabled them to achieve a cost advantage, majority of the respondents' felt that this was true to a moderate extent. This may be attributed to the fact that very few of the SACCOs especially the older ones have more than one branch. The strategy of having many branches in different counties is a recent development in the sector. Respondents were asked to give their views concerning their general market performance measured using perception of customer loyalty and satisfaction. These results are presented in Table 4.24

**Table 4.24: Mean Scores and Standard Deviations of Market Performance**

| | SACCO Market Performance | N | Mean score | Std. Deviation | Cv % |
|---|---|---|---|---|---|
| 1 | We have more loyal customers in our firm | 78 | 3.54 | 1.245 | 35 |
| 2 | We hardly receive complaints about our services | 78 | 3.68 | 1.344 | 37 |
| 3 | Our customers are happy with our offerings and charges | 78 | 3.63 | 1.369 | 38 |
| 4 | Overall we perform better than our competitors | 78 | 4.01 | 1.111 | 27 |
| | **Overall Score** | **78** | **3.71** | **.855** | **23** |

Source: Primary Data

Overall the results in Table 4.24 demonstrate that the mean score for the items was fairly consistent around 3.5, however there was more dispersion observed. When asked to rate whether they had more loyal customers the mean score = 3.54 indicates that to a moderate extent they are loyal. The reason for this may be that the customers/members are also shareholders and are therefore unlikely to move from one SACCO to another. However, the opening of the common bond has meant that members could belong to more than one SACCO meaning that loyalty is bound to be an issue in the future. Overall market performance was found to have a mean of 3.714 with a Cv of 23 percent indicating that the respondents agreed that the SACCOs displayed behaviors consistent with the performance indicators. Table 4.25 presents the overall mean scores of the non-financial performance measure variables.

**Table 4.25 Mean scores and Standard deviation for Non-financial organizational performance variables**

| | Non-financial Organizational Performance | N | Mean Score | Std. Deviation | Cv % |
|---|---|---|---|---|---|
| 1 | Differentiation | 78 | 3.89 | 0.361 | 9 |
| 2 | Cost Leadership | 78 | 3.89 | 0.725 | 18 |
| 3 | Market Performance | 78 | 3.71 | 0.855 | 23 |
| | **Overall Score** | **78** | **3.85** | **0.327** | **8.5** |

Source: Primary Data

Table 4.25 reveals that the contribution of the various variables to overall non-financial performance was fairly consistent with all of the variables having mean score within the range of 3.71 to 3.89. The findings indicate that to a moderate extent the respondents were in agreement regarding their differentiation and cost leadership activities with a CV of 9 percent and 18 percent respectively. More dispersion was observed in the market performance measure with a CV of 23 percent. Overall non-financial organizational performance recorded a mean score of 3.85 and CV= 8.5 percent representing a general consensus among respondents regarding their non-financial organizational performance. A correlation analysis was carried out on the variables in order to determine the direction and magnitude of the relationships between variables; the results are presented in Table 4.26

**Table 4.26 Correlation matrix of Non-Financial Performance variables**

| | | | 1 | 2 | 3 |
|---|---|---|---|---|---|
| 1 | Differentiation | Pearson Correlation | 1 | | |
| | | Sig. (2-tailed) | | | |
| 2 | Cost Leadership | Pearson Correlation | .045 | 1 | |
| | | Sig. (2-tailed) | .717 | | |
| 3 | Market Performance | Pearson Correlation | .055 | .448[**] | 1 |
| | | Sig. (2-tailed) | .658 | .000 | |
| | **. Correlation is significant at the 0.01 level (2-tailed). | | | | |

Source: Primary Data

From the Table 4.26 we observe that there was mild positive correlation between cost leadership and market performance with r = 0.448 and the relationship was significant at the 0.01 level. The measures used to determine cost leadership were related to cost of transactions. Therefore the correlation observed between cost leadership and market performance could indicate that lower transaction costs led to customer satisfaction and loyalty. All other variables had weak but positive correlation though these were not significant.

## 4.10 Overall Correlation Analysis

A correlation analysis of all the study variables was carried out to determine the relationships that existed between them. The analysis revealed mixed findings and is presented in Table 4.27.

**Table 4.27 Correlation analysis of all the Study Variables**

<div align="center">Correlations</div>

| | | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| 1 | Market orientation | Pearson Correlation | 1 | | | | |
| | | Sig. (2-tailed) | | | | | |
| 2 | Firm characteristics | Pearson Correlation | -.055 | 1 | | | |
| | | Sig. (2-tailed) | .646 | | | | |
| 3 | Dynamic capabilities | Pearson Correlation | .442** | -.013 | 1 | | |
| | | Sig. (2-tailed) | .000 | .911 | | | |
| 4 | Non-financial performance | Pearson Correlation | .237* | -.167 | .232* | 1 | |
| | | Sig. (2-tailed) | .040 | .166 | .044 | | |
| 5 | Financial performance | Pearson Correlation | .086 | .017 | .231 | .086 | 1 |
| | | Sig. (2-tailed) | .490 | .897 | .062 | .494 | |

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

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

Source: Primary Data

The results from the correlation analysis summarized in Table 4.28 show a moderate positive and significant correlation between market orientation and dynamic capabilities r = .442, p < .05. Similarly a weak positive but significant correlation was observed between market orientation and performance r = .239, p< .05 and dynamic capabilities and performance r = .255, p< .05. A negative correlation was observed between firm characteristics and all other variables. This negative relationship is expected within the SACCO context since older organizations are likely to be less reactive to the changing environment. Financial performance had a positive relationship with all the variables though none of these relationships was found to be significant. The results of the mean scores on the composite variables are presented in Table 4.28

**Table 4.28 Mean Scores and Standard Deviation for all Study Variables**

|  | N | Mean | Std. Deviation | Cv % |
|---|---|---|---|---|
| Market orientation | 78 | 4.16 | .290 | 6.9 |
| Firm characteristics | 72 | 2.57 | .718 | 27 |
| Dynamic capabilities | 78 | 4.13 | .338 | 8.2 |
| Non-financial performance | 78 | 3.85 | .327 | 8.5 |
| Financial performance | 66 | 3.41 | 1.569 | 46 |

Source: Primary Data

The results presented in Table 4.28 show that the mean scores for each of the studies variables ranged from 2.57 to 4.16. Market orientation recorded the highest mean score at 4.162. These results indicate that SACCOs rate highly in overall market orientation and possession of dynamic capabilities. The coefficient of variation at 6.5 percent demonstrates the general agreement regarding the factors that encourage a market orientation. Though

observed to have relatively lower mean scores, firm characteristics and financial performance variables demonstrated the highest dispersion which is indicative of the variability in size, age and growth of the respondent SACCOs.

**4.11 Chapter Summary**

This chapter presented the results of descriptive analysis tests run on the collected data. It provided information on the characteristics of the respondents, response rate and tests of reliability, homogeneity and multicollinierity. The mean scores of each of the study variable indicators was presented together with the overall scores of all the variables.

# CHAPTER FIVE: TESTS OF HYPOTHESES AND DISCUSSION

## 5.1 Introduction

This section presents the hypotheses of the study derived from the study objectives and the results of the analyses on hypothesized relationships. The study was informed by the premise that there exists a relationship between market orientation and organizational performance and that this relationship is moderated by the firms characteristics and mediated by the firms' dynamic capabilities. In order to ascertain these relationships, five hypotheses were proposed and tested using simple and multiple linear regression analyses. The hypotheses were tested at 95 percent confidence level ($\alpha=0.05$), while t-test and p-values were used to determine individual significance of the hypothesized relationships. The significance and overall robustness of the model was assessed using F statistic and p values for significance. Overall, p values $\geq 0.05$ indicated that the null hypothesis would not be rejected while those p values $\leq 0.05$ signified that the null hypothesis would be rejected.

## 5.1 Market Orientation and Organizational Performance

The study sought to identify the effect of market orientation on performance and used both subjective and objective measures of performance. The subjective performance measure (non-financial performance) required respondents to rate the extent to which given statements on competitive advantage and market performance matched their perceived performance in the specified areas, using a scale of 1 to 5 with 1 representing 'not at all' and 5 representing 'to a great extent'. The objective measure of performance (financial performance) used growth in turnover, loans and deposits whereby percentage changes were obtained by the proportion [(Current years value-Previous years value)/Current years value]

for the period 2011, 2012 and 2013. These percentages were then averaged and grouped into six categories as presented in appendix (VI) which were further used in the regression analyses. Rodriguez, Carrillat and Jaramillo (2004), argue that the strength of the relationship between market orientation and organizational performance might be overstated when organizational performance is measured using subjective scales and understated when using objective scales. The first study objective was therefore to determine the influence of market orientation on organizational performance and this was tested using two sub hypotheses:

**Hypothesis 1a:  There is a relationship between Market orientation and Non-financial Organizational Performance**

**Table 5.1: Simple regression analysis results for the relationship between Market orientation and Organizational performance**

**(a) Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .159[a] | .025 | .010 | .13712 | .025 | 1.663 | 1 | 64 | .202 |

a. Predictors: (Constant), market orientation

**(b) ANOVA**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| | Regression | .031 | 1 | .031 | 1.663 | .202[b] |
| 1 | Residual | 1.203 | 64 | .019 | | |
| | Total | 1.235 | 65 | | | |

a. Dependent Variable: Total organizational performance
b. Predictors: (Constant), market orientation

**( c) Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .356 | .243 | | 1.464 | .148 |
| | Market orientation | .075 | .058 | .159 | 1.290 | .202 |

a. Dependent Variable: Total organizational performance

Source: Primary Data

The results in Table 5.1(a) reveal that market orientation explains 2.5% of the variability in SACCO performance and this contribution is not significant at p value = 0.202 .This means that the variation in performance was explained by other factors that were not captured by the study. Table 5.1 (b) shows that the f statistic = 1.663 is not significant meaning that the model was not robust enough to explain the relationship. Therefore the study failed to reject the null hypothesis.

$y = .356 + .159$ MO

*Where:*

y = Organizational performance

MO = Market Orientation

In order to understand the effect of market orientation on financial and non-financial measures the following sub hypotheses were developed and tested.

**Hypothesis 1b:  There is a relationship between Market orientation and Non-financial Organizational Performance**

**Table 5.2: Simple regression analysis results for the relationship between Market Orientation and Non-Financial Organizational Performance**

**(a)Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .239[a] | .057 | .045 | .32044 | .057 | 4.597 | 1 | 76 | .035 |

a. Predictors: (Constant), Market orientation
b. Dependent Variable: Non-financial performance

**(b) ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .472 | 1 | .472 | 4.597 | .035[b] |
| | Residual | 7.804 | 76 | .103 | | |
| | Total | 8.276 | 77 | | | |

a. Dependent Variable: Non-financial performance
b. Predictors: (Constant), Market orientation

**( c) Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.728 | .525 | | 5.194 | .000 |
| | Market orientation | .269 | .126 | .239 | 2.144 | .035 |

a. Dependent Variable: Non-financial performance
Source: Primary Data

The results displayed in Table 5.2 show that market orientation explained 5.7% of the variability in SACCO non-financial performance $R^2$ =0.057 with 94.3% being explained by other variables not captured in the study. The regression model was significant at F = 4.597 with p value=0.035 which was lower than the cut off P value of 0.05. This means that the null hypothesis was rejected implying that market orientation has a significant effect on non-

financial performance. Similarly, the standardized beta coefficient indicates that market orientation makes a statistically significant contribution to non-financial performance (Beta = 0.239, t =2.144, p<0.05) and is therefore a good predictor of non-financial performance.

The regression model that explains the variation in non- financial performance as a result of the direct influence market orientation can thus be stated as follows:

y = 2.728 + .057 MO

*Where:*

y = non-financial performance

MO = Market Orientation

## 1(c) Relationship between Market Orientation and Competitive Advantage

Several studies have tested the relationship between market orientation and competitive advantage ( Ioannou, 2008; Zhou, 2009; Kumar et al., 2011) and proposed that though a market orientation does not cause competitive advantage, it contributes towards its attainment. Consequently the following hypothesis was tested.

**Hypothesis 1c: There is a relationship between market orientation and competitive advantage**

The results of this regression analysis on the relationship between market orientation and competitive advantage are presented in Table 5.3

**Table 5.3: Simple regression analysis results for the relationship between Market Orientation and Competitive Advantage**

**(a) Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .303[a] | .092 | .080 | .32060 | .092 | 7.685 | 1 | 76 | .007 |

a. Predictors: (Constant), Market orientation
b. Dependent Variable: Competitive advantage

**(b) ANOVAa**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| | Regression | .790 | 1 | .790 | 7.685 | .007[b] |
| 1 | Residual | 7.812 | 76 | .103 | | |
| | Total | 8.602 | 77 | | | |

a. Dependent Variable: Competitive advantage
b. Predictors: (Constant), Market orientation

**( c) Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| | (Constant) | 2.444 | .526 | | 4.650 | .000 |
| 1 | Market orientation | .349 | .126 | .303 | 2.772 | .007 |

a. Dependent Variable: Competitive advantage

The results displayed in Table 5.3 show that market orientation had a positive relationship with competitive advantage and this relationship was significant at p=0.007. The models $R^2$ = 0.092 indicates that market orientation explained 9.2 % of the variance observed in competitive advantage. The F statistic =7.685 was significant at p< 0.05 which showed that the model was significant in explaining the relationship between market orientation and competitive advantage. This finding is supported by a positive and significant standardized

beta coefficient (Beta = 0.126, t =2.772, p< 0.05). The regression model used to explain the variations in competitive advantage due to the influence of market orientation can be stated as follows

y = 2.444 + 0.303 MO

Where:

y = Competitive advantage

MO = Market orientation

To test the effect of market orientation on market performance the following hypothesis was tested.

**Hypothesis 1d: There is a relationship between market orientation and market performance**

**Table 5.4: Simple regression analysis results for the relationship between Market Orientation and Market performance**

**(a) Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .014[a] | .000 | -.013 | .86092 |

a. Predictors: (Constant), market orientation

**(b) ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .011 | 1 | .011 | .015 | .904[b] |
| | Residual | 56.330 | 76 | .741 | | |
| | Total | 56.341 | 77 | | | |

a. Dependent Variable: market performance
b. Predictors: (Constant), market orientation

<div align="center">

**( c) Coefficients[a]**

</div>

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 3.884 | 1.411 | | 2.752 | .007 |
| | Market orientation | -.041 | .338 | -.014 | -.120 | .904 |

a. Dependent Variable: market performance
Source: Primary Data

The results from Table 5.4 reveal that market orientation did not explain any of the variation in market performance. This means that any changes in market performance were explained by other factors besides market orientation.

**1e: The relationship between market orientation and financial performance**

Hult, Ketchen, & Slater (2005) found a direct relationship between Market orientation and firm performance with performance measured using Return on Assets, Return on Equity and Return on Investment as financial indicators. However, Han et al (2005) found a positive but insignificant relationship. Due to these mixed findings, the study sought to determine the relationship between Market orientation and financial performance by testing the following hypothesis.

**Hypothesis 1e: There is a relationship between market orientation and financial performance**

Table 5.5 presents the results of the regression analysis testing the relationship between market orientation and financial performance.

**Table 5.5:   Simple regression analysis results for the relationship between Market**

**Orientation and Financial Performance**

**(a) Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .164[a] | .027 | .008 | .50666 |

a. Predictors: (Constant), Market orientation

**(b) ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .360 | 1 | .360 | 1.403 | .242[b] |
| | Residual | 13.092 | 51 | .257 | | |
| | Total | 13.452 | 52 | | | |

a. Dependent Variable: Financial performance
b. Predictors: (Constant), Market orientation

**( c ) Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Correlations | | |
|---|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Zero-order | Partial | Part |
| 1 | (Constant) | 1.758 | .969 | | 1.814 | .075 | | | |
| | Market orientation | .274 | .231 | .164 | 1.184 | .242 | .164 | .164 | .164 |

a. Dependent Variable: Financial performance
Source: Primary Data

Table 5.5 reveals that though market orientation explained 2.7 percent of variability in financial performance $R^2 = 0.027$. The F statistic = 1.403, p = 0.242 indicates that the model had weak explanatory power. The study failed to reject the null hypothesis thus implying that there is no relationship between market orientation and financial performance.

## 5.2 Firm Characteristics and Organizational Performance

The second objective of the study was to assess the effect of firm characteristics on Organizational performance. The corresponding hypothesis was:

**H2: There is a relationship between Firm Characteristics and Organizational Performance**

Since the study was assessing both financial and non-financial performance, two sub hypotheses were derived from Hypothesis 2. Age was measured as the number of years the SACCO had been in service while size was measured by asset base. Loderer and Waelchli (2009) while investigating the relationship between age and performance found that getting older slows performance, regardless of whether it was measured from the time of listing or the time of incorporation. Njeru (2013) investigated the moderating role of firm performance in the relationship between market orientation and marketing practices found no significant relationship. A correlation analysis was carried out to test for the relationship between the firm characteristics variables age and size and their influence on both the Non-financial and financial performance measures.

**H2a: There is a relationship between Firm Characteristics and Non-financial Organizational Performance**

The results for the correlation analysis of firm characteristics and non-financial performance are presented in Table 5.6

**Table 5.6: Correlation analysis of Firm Characteristics and Non-Financial Organizational Performance.**

|   |   |   | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|
| 1 | Non-financial performance | Pearson Correlation | 1 | | | |
|   |   | Sig. (2-tailed) | | | | |
| 2 | Number of years in service | Pearson Correlation | -.202 | 1 | | |
|   |   | Sig. (2-tailed) | .076 | | | |
| 3 | Size by assets | Pearson Correlation | -.015 | .314** | 1 | |
|   |   | Sig. (2-tailed) | .899 | .007 | | |

Source: Primary Data

The results of the correlation analysis in Table 5.6 show that there was a negative correlation between age of the SACCO measured by number of years in business and non-financial performance (Pearson correlation coefficient = -0.202) with p = 0.076. Similarly, a negative correlation was observed between size of SACCO measured by assets and non-financial performance (Pearson correlation coefficient = -0.015 and p = 0.899. These results implied that newer/younger SACCOs and those that have a smaller asset base were likely to perform better than older SACCOs or those with a larger asset base. This finding concurs with the observation by SASRA (2013) that government and teacher-based SACCOs account for 72% of the total assets and deposits of licensed deposit taking SACCOs and represent the oldest SACCO societies to be established in Kenya. A cross tabulation of SACCO category and size by assets (Appendix 4) shows that 55 percent of the respondents who had a large asset base were from the government based SACCOs. According to Hannan and Freeman, (1984) and Leonard-Barton, (1992) age can have adverse effects on performance because of the organizational rigidities and inertia it brings about and because it impairs firms' ability to

perceive valuable signals. Since the p value was greater than .05 the study failed to reject the null hypothesis.

**Hypothesis 2b: There is a relationship between Firm Characteristics and Financial Organizational Performance**

A correlation analysis was carried out to test the relationship between firm characteristics and financial performance which was measured by the total growth percent in turnover, loans and deposits, and shares. The results of the analysis are displayed in Table 5.7

**Table 5.7: Correlation analysis results of Firm Characteristics and Financial Performance**

|  |  | Number of years in service | Size by assets | Financial performance |
|---|---|---|---|---|
| Number of years in service | Pearson Correlation | 1 |  |  |
|  | Sig. (2-tailed) |  |  |  |
| Size by assets | Pearson Correlation | $.314^{**}$ |  |  |
|  | Sig. (2-tailed) | .007 |  |  |
| Financial performance | Pearson Correlation | -.141 | $.251^{*}$ | 1 |
|  | Sig. (2-tailed) | .259 | .045 |  |

\*\*. Correlation is significant at the 0.01 level (2-tailed).
\*. Correlation is significant at the 0.05 level (2-tailed).
Source: Primary Data

Table 5.4 presents the results of the correlation analysis for the relationship between firm characteristics and financial performance. As expected age had a positive correlation with asset size with correlation coefficient r = .314 and p = 0.007. Age of the SACCO was found to be negatively correlated with financial performance with Pearson correlation r = -0.141 and p = 0.259. Size on the other hand was found to be positively correlated with financial performance having a Pearson correlation r= 0.251 and p = 0.45. Since the P value was less than 0.05 the null hypothesis was rejected. Due to the mixed results obtained on the relationship between firm characteristics and financial performance, the hypothesis was partially supported for size.

## 5.3 Market Orientation, Firm Characteristics and Organizational Performance

The third objective sought to determine the moderating effect of firm characteristics on the relationship between market orientation and performance. Two sub hypotheses were tested.

## H3a: The relationship between Market orientation and non-financial performance is moderated by firm characteristics

The procedure to test for moderation as outlined in Baron and Kenny (1986) was followed. First the independent variable was assumed to interact with the dependent variable. Next, the independent variable and the moderator variable were centered by subtracting the mean from all values so that the mean is zero. This step is then followed by the multiplication of the centered independent variable with the centered moderator variable in order to create an interaction term. Complete moderation is said to occur when the causal effect of the independent variable on the dependent variable goes to zero with the addition of the moderator (Baron & Kenny, 1986; Kenny, Kashy & Bolger, 1997).

The results of the analysis are presented in Table 5.8

**Table 5.8: Regression analysis results for Market Orientation, Firm Characteristics and Non-financial Organizational Performance**

**(a) Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .314[a] | .099 | .073 | .30800 | .099 | 3.781 | 2 | 69 | .028 |
| 2 | .315[b] | .099 | .059 | .31023 | .000 | .012 | 1 | 68 | .914 |

a. Predictors: (Constant), Firm characteristics, Market orientation
b. Predictors: (Constant), Firm characteristics, Market orientation, Interaction variable

## (b) ANOVAᵃ

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .717 | 2 | .359 | 3.781 | .028ᵇ |
| | Residual | 6.545 | 69 | .095 | | |
| | Total | 7.263 | 71 | | | |
| 2 | Regression | .718 | 3 | .239 | 2.489 | .068ᶜ |
| | Residual | 6.544 | 68 | .096 | | |
| | Total | 7.263 | 71 | | | |

a. Dependent Variable: Non-financial performance

b. Predictors: (Constant), Firm characteristics, Market orientation

c. Predictors: (Constant), Firm characteristics, Market orientation, Interaction variable

## ( C ) Coefficientsᵃ

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.698 | .540 | | 4.999 | .000 |
| | Market orientation | .308 | .124 | .286 | 2.495 | .015 |
| | Firm characteristics | -.052 | .051 | -.117 | -1.018 | .312 |
| 2 | (Constant) | 2.698 | .544 | | 4.963 | .000 |
| | Market orientation | .309 | .124 | .286 | 2.479 | .016 |
| | Firm characteristics | -.053 | .052 | -.119 | -1.015 | .313 |
| | Interaction variable | -.018 | .166 | -.013 | -.109 | .914 |

a. Dependent Variable: Non-financial performance

Source: Primary Data

Table 5.8 shows that model 1 is significant (F = 3.781, p-value = .028). The observed $R^2$ = .099 implied that market orientation and firm characteristics jointly explained 9.9 % of the variation in non-financial performance. Upon introduction of the interaction term the model became insignificant with p = 0.914 and the beta value dropped from .286 to -.013 indicating

a partial moderation. Hypothesis 3a was therefore partially supported. The F statistic = 2.489, p = .068 provided further confirmation that the model was not robust enough to test the relationship. The regression model explaining the variations in non-financial performance due to the moderating effects of firm characteristics was stated as follows:

y = 2,698 + .286MO-.119FC-.013MO*FC

Where:

y = Non-financial Performance

MO = Market Orientation

FC = Firm Characteristics

MO*FC = Interaction term of Market Orientation and Firm Characteristics

## 5.3.1 Market Orientation, Firm Characteristics and Competitive Advantage

The study assessed whether firm characteristics moderated the relationship between market orientation and competitive advantage. The following hypothesis was therefore tested.

**Hypothesis 3b: The relationship between market orientation and competitive advantage is moderated by firm characteristics**

Table 5.9 presents a summary of regression analysis results assessing for the impact of firm characteristics on the relationship between market orientation and competitive advantage.

**Table 5.9 Regression analysis results for Market Orientation, Firm Characteristics and Competitive Advantage**

**(a) Model Summary[c]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | R Square Change | F Change | df1 | df2 | Sig. F Change |
|---|---|---|---|---|---|---|---|---|---|
| 1 | .362[a] | .131 | .106 | .30589 | .131 | 5.209 | 2 | 69 | .008 |
| 2 | .362[b] | .131 | .093 | .30813 | .000 | .000 | 1 | 68 | .997 |

a. Predictors: (Constant), Firm characteristics, market orientation

b. Predictors: (Constant), Firm characteristics, Market orientation, Interaction variable

c. Dependent Variable: Competitive advantage

**(b) ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .975 | 2 | .487 | 5.209 | .008[b] |
| | Residual | 6.456 | 69 | .094 | | |
| | Total | 7.431 | 71 | | | |
| 2 | Regression | .975 | 3 | .325 | 3.422 | .022[c] |
| | Residual | 6.456 | 68 | .095 | | |
| | Total | 7.431 | 71 | | | |

a. Dependent Variable: Competitive advantage

b. Predictors: (Constant), Firm characteristics, Market orientation

c. Predictors: (Constant), Firm characteristics, Market orientation, Interaction variable

**( c) Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.314 | .536 | | 4.316 | .000 |
| | Market orientation | .391 | .123 | .358 | 3.186 | .002 |
| | Firm characteristics | -.017 | .051 | -.038 | -.339 | .736 |
| 2 | (Constant) | 2.314 | .540 | | 4.285 | .000 |
| | Market orientation | .391 | .124 | .358 | 3.161 | .002 |
| | Firm characteristics | -.017 | .052 | -.038 | -.333 | .740 |
| | Interaction variable | -.001 | .165 | .000 | -.004 | .997 |

a. Dependent Variable: Competitive advantage

The results of the analysis in Table 5.9 demonstrate that market orientation and firm characteristics jointly explain 13.1 % of the variance in competitive advantage $R^2$ =.131 and this relationship is significant at p = .008 and F = 5.209. However, when the interaction term was added the model became insignificant and the beta coefficient dropped from .358 to .000 indicating that there was a partial moderation which was not significant at p = .997. However, the results showed a statistically significant relationship between market orientation, firm characteristics and the interaction term at F = 3.422 and p = .022. From the study findings the regression model explaining the variations in competitive advantage due to the moderating effects of firm characteristics was stated as follows:

y = 2.314 + .358MO-.038FC-.001MO*FC

Where:

y = Competitive Advantage

MO = Market Orientation

FC = Firm Characteristics

MO*FC =Interaction term of Market Orientation and Firm Characteristics

Since hypothesis 1b identified that the relationship between market orientation and financial performance was not significant, hypothesis 3b was not tested as it did not meet the basic requirements provided by Baron and Kenny (1986) for moderation tests requiring that a relationship between the two variables must first be established before proceeding with analysis.

## 5.4 Market Orientation, Dynamic Capabilities and Organizational Performance

The fourth objective of the study was to determine the mediating effect of dynamic capabilities on the relationship between market orientation and organizational performance. The hypothesis generated from this objective was:

**Hypothesis 4a: The relationship between market orientation and organizational performance is mediated by dynamic capabilities**

To test for mediation, the steps proposed by Baron and Kenny (1986) were followed. The first step included carrying out a correlation analysis to confirm that the independent variable is correlated to the mediator and the dependent variable and that the mediator is also correlated to the dependent variable. In the second step, carry out a regression of the independent variable and dependent variable independently then add the mediator and carry out a second regression. At this stage check for the $R^2$ change and associated F and Betas as these will enable interpretation on mediation. For mediation to be present then the mediators' coefficient should be significant and the coefficient of the independent variable should

decrease when the mediator is added. The rule is that if the independent variable drops from a significant beta to a non-significant beta then full mediation is present. If independent variable drops from a significant beta to a smaller beta then partial mediation is present. Two sub hypotheses were developed from the main hypothesis to assess the effect on both financial and non-financial performance. The results for the analysis on mediation are presented in Table 5.10.

**Table 5.10 Regression analysis results of Market Orientation, Dynamic Capabilities and Non-financial Performance**

**(a) Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .239[a] | .057 | .045 | .32044 | .057 | 4.597 | 1 | 76 | .035 |
| 2 | .291[b] | .085 | .060 | .31781 | .028 | 2.263 | 1 | 75 | .137 |

a. Predictors: (Constant), Market orientation
b. Predictors: (Constant), Market orientation, Dynamic capabilities

**(b) ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .472 | 1 | .472 | 4.597 | .035[b] |
| | Residual | 7.804 | 76 | .103 | | |
| | Total | 8.276 | 77 | | | |
| 2 | Regression | .701 | 2 | .350 | 3.468 | .036[c] |
| | Residual | 7.575 | 75 | .101 | | |
| | Total | 8.276 | 77 | | | |

a. Dependent Variable: Total non-financial performance
b. Predictors: (Constant), Market orientation
c. Predictors: (Constant), Market orientation, Dynamic capabilities

**( c ) Coefficients<sup>a</sup>**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.728 | .525 | | 5.194 | .000 |
| | Market orientation | .269 | .126 | .239 | 2.144 | .035 |
| 2 | (Constant) | 2.372 | .572 | | 4.145 | .000 |
| | Market orientation | .177 | .139 | .157 | 1.275 | .206 |
| | Dynamic capabilities | .179 | .119 | .185 | 1.504 | .137 |

a. Dependent Variable: non-financial performance

Source: Primary Data

The results in Table 5.10 show that there is a positive relationship between market orientation and non-financial performance ($R^2$ = .057, F = 4.597, p-value = 0.35). The second step of testing for mediation was carried out to establish the relationship between market orientation and dynamic capabilities. The results revealed a positive and significant relationship ($R^2$ = .195, F = 18.413, p-value < 0.05). The third step required testing of the significance of the relationship between the mediator dynamic capabilities and non-financial performance. The results of the regression analysis showed a positive and significant relationship ($R^2$ = .065, F = 5.267, p-value < 0.05). The final step in the analysis required testing of the combined effect of market orientation and dynamic capabilities on non-financial performance.

The results indicate that both market orientation and dynamic capabilities had a positive influence on non-financial performance when combined but this influence was not significant ($R^2$ = .85, F = 2.263 and p = .137. Since the results of the relationship between market orientation and non-financial performance was not significant (p = .206) following the introduction of dynamic capabilities to the model and the β coefficient for market orientation

dropped from β= 239, p< 0.05 to β= 157, p>0.05 the hypothesis for full mediation was supported. The regression equation to predict the relationship between market orientation and non-financial performance as mediated by dynamic capabilities was therefore fitted as follows:

y = 2.372 + .157 MO + .185 DC

*Where:*

y = Non-Financial Performance

MO = Market Orientation

DC = Dynamic Capabilities

**Hypothesis 4b: The relationship between market orientation and competitive advantage is mediated by dynamic capabilities.**

The results for the analysis on mediation are presented in Table 5.11

**Table 5.11 Regression analysis results for Market Orientation, Dynamic Capabilities and Competitive Advantage**

**(a) Model Summary[c]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .303[a] | .092 | .080 | .32060 | .092 | 7.685 | 1 | 76 | .007 |
| 2 | .336[b] | .113 | .089 | .31896 | .021 | 1.785 | 1 | 75 | .186 |

a. Predictors: (Constant), Market orientation
b. Predictors: (Constant), Market orientation, Dynamic capabilities
c. Dependent Variable: Competitive advantage

## (b) ANOVA[a]

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .790 | 1 | .790 | 7.685 | .007[b] |
| | Residual | 7.812 | 76 | .103 | | |
| | Total | 8.602 | 77 | | | |
| 2 | Regression | .971 | 2 | .486 | 4.774 | .011[c] |
| | Residual | 7.630 | 75 | .102 | | |
| | Total | 8.602 | 77 | | | |

a. Dependent Variable: Competitive advantage

b. Predictors: (Constant), Market orientation

c. Predictors: (Constant), Market orientation, Dynamic capabilities

## ( C ) Coefficients[a]

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.444 | .526 | | 4.650 | .000 |
| | Market orientation | .349 | .126 | .303 | 2.772 | .007 |
| 2 | (Constant) | 2.127 | .574 | | 3.703 | .000 |
| | Market orientation | .266 | .139 | .232 | 1.910 | .060 |
| | Dynamic capabilities | .160 | .120 | .162 | 1.336 | .186 |

a. Dependent Variable: Competitive advantage

Source: Primary Data

The results in Table 5.11 reveal that the correlation between market orientation and competitive advantage was significant r = .303, p = .007. The $R^2$ = .092, F = 7.685, p-value < 0.05 indicating that there is a positive and significant relationship between market orientation and competitive advantage. Consequently, the second step of testing for mediation was carried out to establish the relationship between market orientation and dynamic capabilities. The results revealed a positive and significant relationship ($R^2$ = .195, F = 18.413, p-value < 0.05). The third step required testing of the significance of the relationship between the

mediator dynamic capabilities and competitive advantage. The results of the regression analysis showed a positive and significant relationship ($R^2 = .070$, F = 5.702, p-value $< 0.05$). These results indicate that the contribution of dynamic capabilities to competitive advantage at 7% is slightly lower than that of market orientation 9.2%. The final step in the analysis required testing of the effect of market orientation on competitive advantage while controlling for dynamic capabilities. The results indicate that market orientation still had a positive influence on competitive advantage but this influence was not significant ($R^2 = 11.3$, F = 1.785 and p = .186. The $R^2$ change ($R^2 = .021$) and the beta coefficient ($\beta = .162$) were both insignificant with p$> 0.05$ indicating full mediation. Consequently the regression model that predicts the variation in competitive advantage as a result of the mediating effect of dynamic capabilities was fitted as follows:

y = 2.127 + .232MO + .060DC

Where:

y = Competitive Advantage

MO = Market Orientation

DC = Dynamic Capabilities

**Hypothesis 4c: The relationship between market orientation and financial**

**performance is mediated by dynamic capabilities**

Since the relationship between market orientation and financial performance was found not to be significant (Hypothesis 1), the analysis of the mediating effect of dynamic capabilities on this relationship was not carried out.

### 5.5: Market Orientation, Firm Characteristics, Dynamic Capabilities and Organizational Performance

The study sought to determine the joint effect of market orientation, firm characteristics and dynamic capabilities on performance. A review of literature indicated that the joint effect of the variables on performance is significant. Consequently, the following sub hypotheses were tested to assess this effect.

**H5a: Market orientation, firm characteristics and dynamic capabilities jointly affect non-financial performance**

The results of the regression analysis to test the joint effect of market orientation, firm characteristics and dynamic capabilities on non-financial performance are summarized in Table 5.12

**Table 5.12: Regression summary for the joint effect of Market orientation, Firm Characteristics and Dynamic Capabilities on Non-Financial Performance**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .292[a] | .085 | .072 | .30808 | .085 | 6.522 | 1 | 70 | .013 |
| 2 | .310[b] | .096 | .070 | .30843 | .011 | .841 | 1 | 69 | .362 |
| 3 | .332[c] | .110 | .071 | .30829 | .014 | 1.061 | 1 | 68 | .307 |

a. Predictors: (Constant), Market orientation
b. Predictors: (Constant), Market orientation, Dynamic capabilities
c. Predictors: (Constant), Market orientation, Dynamic capabilities, Firm characteristics

The results presented in Table 5.7 reveal that market orientation, firm characteristics and dynamic capabilities jointly explained 7.1% of the variation in performance and this effect

was not significant at p = .307 implying that the hypothesis was not supported. Market

orientation independently explained 7.2 % of the variation. This decreased to 7.0 % with

addition of dynamic capabilities to the model. The F statistics show that all the models were

significant indicating that they were robust enough to explain the relationship between the

variables. These findings are presented in Table 5.13

**Table 5.13: Analysis of Variance results for the joint effect of Market orientation, Firm characteristics and Dynamic capabilities on Non-financial performance**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .619 | 1 | .619 | 6.522 | .013[b] |
| | Residual | 6.644 | 70 | .095 | | |
| | Total | 7.263 | 71 | | | |
| 2 | Regression | .699 | 2 | .350 | 3.674 | .030[c] |
| | Residual | 6.564 | 69 | .095 | | |
| | Total | 7.263 | 71 | | | |
| 3 | Regression | .800 | 3 | .267 | 2.805 | .046[d] |
| | Residual | 6.463 | 68 | .095 | | |
| | Total | 7.263 | 71 | | | |

a. Dependent Variable: non-financial performance
b. Predictors: (Constant), Market orientation
c. Predictors: (Constant), Market orientation, Dynamic capabilities
d. Predictors: (Constant), Market orientation, Dynamic capabilities, Firm characteristics

The regression coefficients of the joint effect of market orientation, firm characteristics and

dynamic capabilities on non-financial performance illustrate that market orientation

contributed more than the rest of the variables in explaining non-financial performance β=

.230. The contribution of dynamic capabilities was lower at (β =.120) while firm

characteristics ($\beta$ = -.118) made a negative contribution to the relationship with non-financial performance. The results are displayed in Table 5.14

**Table 5.14: Regression coefficients of the joint effect of Market orientation, Firm characteristics and Dynamic capabilities on non-financial performance**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.535 | .516 | | 4.917 | .000 |
| | Market orientation | .315 | .123 | .292 | 2.554 | .013 |
| 2 | (Constant) | 2.331 | .562 | | 4.147 | .000 |
| | Market orientation | .256 | .139 | .237 | 1.840 | .070 |
| | Dynamic capabilities | .109 | .119 | .118 | .917 | .362 |
| 3 | (Constant) | 2.493 | .583 | | 4.273 | .000 |
| | Market orientation | .248 | .139 | .230 | 1.781 | .079 |
| | Dynamic capabilities | .111 | .119 | .120 | .932 | .355 |
| | Firm characteristics | -.053 | .051 | -.118 | -1.030 | .307 |

a. Dependent variable: Non-financial performance

The regression model used to predict the joint effect of market orientation, firm characteristics and dynamic capabilities on non-financial performance was fitted as follows:

y = 2.493 + .230MO + .120DC - .118FC

*Where:*

y = Non-Financial Performance

MO = Market Orientation

DC = Dynamic Capabilities

FC = Firm Characteristics

In order to test the joint effect of all the variables on financial performance the following hypothesis was generated.

**Hypothesis 5b: Market orientation, Firm Characteristics and Dynamic Capabilities jointly affect Financial Performance**

The results of analysis carried out to test this hypothesis are contained in Table 5.15

**Table 5.15: Regression summary for the joint effect of Market Orientation, Firm Characteristics and Dynamic Capabilities on Financial Performance**

**(Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|-------|---|----------|-------------------|---------------------------|-------------------|---|-----|-----|-------------|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .169[a] | .029 | .009 | .50647 | .029 | 1.441 | 1 | 49 | .236 |
| 2 | .349[b] | .122 | .085 | .48649 | .093 | 5.109 | 1 | 48 | .028 |
| 3 | .385[c] | .148 | .094 | .48423 | .026 | 1.448 | 1 | 47 | .235 |

a. Predictors: (Constant), Market orientation
b. Predictors: (Constant), Market orientation, Dynamic capabilities
c. Predictors: (Constant), Market orientation, Dynamic capabilities, Firm characteristics

Source: Primary Data

The results presented in Table 5.15 reveal that market orientation, firm characteristics and dynamic capabilities jointly explained 9.4 % of the variation in financial performance. However, this effect was not significant at p = .235 implying that the hypothesis was not supported. Market orientation independently explained less than 1 % of the variation. Dynamic capabilities and market orientation jointly explained 8.5 % of the variation in

financial performance. Similarly the F statistic for the model explaining the influence of market orientation and dynamic capabilities on financial performance was significant at F = 3.335 and P = .044. The F statistic for market orientation was given as F = 1.441, p = .236.  These results are displayed in Table 5.16

**Table 5.16: Analysis of Variance results for the Joint effect of Market Orientation, Firm Characteristics and Dynamic Capabilities on Financial Performance**

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .370 | 1 | .370 | 1.441 | .236[b] |
| | Residual | 12.569 | 49 | .257 | | |
| | Total | 12.939 | 50 | | | |
| 2 | Regression | 1.579 | 2 | .789 | 3.335 | .044[c] |
| | Residual | 11.360 | 48 | .237 | | |
| | Total | 12.939 | 50 | | | |
| 3 | Regression | 1.918 | 3 | .639 | 2.727 | .055[d] |
| | Residual | 11.021 | 47 | .234 | | |
| | Total | 12.939 | 50 | | | |

a. Dependent Variable: Financial Performance
b. Predictors: (Constant), Market orientation
c. Predictors: (Constant), Market orientation, Dynamic capabilities
d. Predictors: (Constant), Market orientation, Dynamic capabilities, Firm characteristics
Source: Primary Data

The regression coefficients of the joint effect of market orientation, firm characteristics and dynamic capability on financial performance reveal that dynamic capabilities contributed more than the rest of the variables in explaining financial performance ($\beta$ = .357). The contribution of market orientation and firm characteristics with $\beta$ = -.022 and $\beta$ = -.166 respectively were found to contribute negatively to the model.

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**Table 5.17: Regression Coefficients for the analysis on the joint effect of Market orientation, Firm characteristics and Dynamic capabilities on Financial Performance**

**Coefficients**[a]

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.755 | .969 | | 1.811 | .076 |
| | Market orientation | .278 | .231 | .169 | 1.200 | .236 |
| 2 | (Constant) | .777 | 1.026 | | .757 | .453 |
| | Market orientation | .026 | .249 | .016 | .105 | .917 |
| | Dynamic capabilities | .492 | .218 | .342 | 2.260 | .028 |
| 3 | (Constant) | 1.265 | 1.099 | | 1.151 | .256 |
| | Market orientation | -.036 | .253 | -.022 | -.144 | .886 |
| | Dynamic capabilities | .514 | .217 | .357 | 2.362 | .022 |
| | Firm characteristics | -.119 | .099 | -.166 | -1.203 | .235 |

a. Dependent Variable: Financial performance

The regression model used to predict the joint effect of market orientation, firm characteristics and dynamic capabilities on financial performance was fitted as follows:

y = 1.099 - .022MO + .357DC - .166FC

*Where:*

y = Financial performance

MO = Market orientation

DC = Dynamic capabilities

FC = Firm characteristics

The overall summary of hypotheses and results of statistical analyses is presented in Table

5.18

**5.18 Summary on Tests of Hypotheses, Results and Conclusions**

| Hypotheses | $R^2$ | (p-value) | F statistic | Conclusion |
|---|---|---|---|---|
| H1a : There is a relationship between market orientation and non-financial performance | .057 | .035 | 4.597 | **Supported** |
| H1b : There is a relationship between market orientation and financial performance | .027 | .242 | 1.403 | **Not Supported** |
| H2a: There is a relationship between firm characteristics and Non-financial performance | **Size r= -.015** | .899 | **Negative relationship but not significant** | **Partially Supported** |
|  | **Age r = -.202** | .076 | **Negative relationship but not signeificant** | **Partially Supported** |
| H2b: There is a relationship between firm characteristics and financial performance | **Size r=.251** | .045 | **Positive and significant relationship** | **Supported** Size has a moderate relationship with financial performance |
|  | **Age r= -.141** | .259 | **Negative relationship but not significant** | **Partially Supported** |
| H3a: The relationship between market orientation and non-financial performance is moderated by firm characteristics | .099 | .914 | .012 | **Partially Supported** |
| H3b: The relationship between market orientation and competitive advantage is moderated by firm characteristics | .131 | .997 | .000 | **Partially Supported** |
| H4a: The relationship between market orientation and non-financial performance is mediated by dynamic capabilities | .085 | .137 | 3.468 | **Supported** |
| H4b: The relationship between market orientation and financial performance is mediated by dynamic capabilities | .115 | .030 | 3.260 | **Supported** |
| H5a: Market orientation, firm characteristics and dynamic capabilities jointly have an effect on non-financial performance | .110 | .307 | 2.805 | **Not Supported** |
| H5b: Market orientation, firm characteristics and dynamic capabilities jointly have an effect on financial performance | .148 | .235 | 2.727 | **Not Supported** |

Source: Primary Data

## 5.6: Discussion of Findings

This section discusses the results of the study in line with the objectives and the conceptual hypotheses of the study. Guided by the literature review a conceptual model that outlined the relationships between the variables was developed. The hypotheses derived from these relationships were then tested through regression analysis.

### 5.6.1: Market Orientation and Performance of Deposit Taking SACCOs

Kohli, Jaworski, and Kumar ( 1993) and Narver and Slater (1990) called for further research to check the robustness of the market orientation model using other organizational types. In the same vein, Kumar et al. (2011) proposed that the market orientation-performance relationship needs to be studied in other contexts to determine if it holds. A review of literature revealed that most studies carried out on market orientation tend to be within the for profit sector with a smaller number being carried out in the not for profit sector. Indeed Kohli, et al. (1993) further suggested that the most promising applications of the market orientation measure may lie with not for profit organizations. This study heeded this call by studying the market orientation and performance relationship in deposit taking SACCOs in Kenya with the unit of analysis being the SACCO. Previous researchers (Li & Justin, 2008; Njeru, 2013) have reported a positive effect while others (Agarwal, Erramilli, & Dev 2003; Suliyanto & Rahab, 2012) found no significant or direct effects. In the current study it was established that market orientation mildly but significantly explained performance when measured using perceptual performance indicators ($R^2$= .057). The study also used both subjective and objective measures of performance as advised by Han et al. (1998) to mitigate against the short comings of using subjective measures and single methods of data collection.

The findings demonstrated no significant relationship between market orientation and financial performance. This finding is consistent with results obtained by Jaworski and Kohli (1993) and Haugland, Myrtveit and Nygaard (2009) who both found positive but non-significant influence of market orientation on Return on Assets (ROA) but found a stronger effect on performance, when applying subjective performance measures.

## 5.6.2: Firm Characteristics and Performance of Deposit Taking SACCOs

Evidence on the influence of firm characteristics on performance is limited. In a study conducted in the hospital industry, Raju, Lonial, Gupta and Zieglar (2000) found evidence that size affected the market orientation –performance relationship. They further noted that there was significantly more variance in market orientation in smaller hospitals as compared to larger hospitals. Firm characteristics in this study comprised of age of the SACCO measured by number of years in service while size was measured by assets size. A correlation analysis of these variables and performance revealed that there was a negative relationship between both age and size and non-financial performance measures. This meant that the older the SACCO the lower its perceived performance. Similarly, SACCOs with larger assets size ranked lower in perceived performance. These results may be attributable to the older SACCOs intrinsic rigidities which impact on their ability to react to or deflect any onslaught from competitors.  Other factors could be a slow and bureaucratic decision making process that leads to missed emerging opportunities. These findings are consistent with those by Capon et al (1990) and Njeru (2013), who found no significant relationship between age and size and firm performance. The study however observed a statistically positive correlation between size and financial performance which is in line with the findings by Onyango (2012) who found a significant relationship between size (measured by number of members) and

financial performance of SACCOs in Kenya. Similarly, Mirie (2014) found a positive and significant relationship between SACCO efficiency and SACCO characteristics.

### 5.6.3: Market Orientation, Firm Characteristics and Performance of Deposit Taking SACCOs

Raju et al. (2000) raised concerns regarding the lack of studies on the moderating effects of firm characteristics, specifically size, on the market orientation and performance relationship. They argued that there was reason to believe that large and small organizations differ in their market orientation. A review of literature reveals several studies focusing on moderating effect of external environment (Zhou et al., 2007; Lonial, 2000; Kumar et al., 1998) strategy type (Matsuno & Mentzer) new product development (Langerak, Hultink & Robben, 2007) on the market orientation-performance relationship. These studies reveal disparate findings on the effect of moderators.

The current study did not establish any significant relationship between market orientation, firm characteristics and performance. This implies that market orientation and firm characteristics independently contribute to firm performance. From the study market orientation contributed positively to performance in contrast to firm size and age which had a negative contribution to performance.

### 5.6.4: Mediating Effect of Dynamic Capabilities on the Market Orientation and Organizational Performance Relationship

Hunt and Morgan (1995) contend that market orientation is a resource; however, resources on their own are not considered adequate sources of competitive advantage and subsequent superior performance. In addition, Ketchen et al. (2007) argue that a firm can only achieve

higher performance by adopting appropriate strategic actions to capitalize on market orientation and create a competitive advantage. Building on the proposal by Murray, et al (2011) that capabilities are a firms accumulated knowledge and skills that enable the firm to utilize and enhance the value of resources, this study sought to empirically test the mediating role of dynamic capabilities on the market orientation and performance relationship. The study proposed that organizations that adopted a market orientation and possessed certain dynamic capabilities were likely to perform better than those who did not. The results lent some support to these proposals by establishing full mediation. This was observed both with on the relationship between market orientation and non-financial performance and market orientation and competitive advantage

## 5.6.5: Joint effect of Market Orientation, Firm Characteristics, Dynamic Capabilities on Deposit Taking SACCO Performance

The study established that the joint effect of market orientation, firm characteristics and dynamic capabilities on performance though positive, was not statistically significant. Market orientation was the only predictor that retained a positive and significant relationship with performance while dynamic capabilities which has a statistically significant relationship individually with performance was found not to be significant in the joint relationship. The findings were not as expected as literature suggests that there should be a positive relationship. This finding suggests that either the relationship between dynamic capabilities and performance is  moderated by firm characteristics or it is possible that firm characteristics suppress the joint effect of market orientation and dynamic capabilities on organizational performance. The proposal that a joint effect exists was guided by views of previous researchers such as Menguc and Auh (2006) who proposed that market orientation generates dynamic capabilities which then influences performance. Similarly, Foley and Fahy (2009)

proposed that modeling market orientation within the capabilities framework may assist in understanding how this resource is deployed towards achieving positive performance outcomes.

## 5.7 Summary and Presentation of Empirical Model

This chapter presented the findings from analytical tests carried out to verify the research objectives and subsequent hypotheses. The results of the statistical analyses carried out were presented and interpreted. From the regression analysis the study established that market orientation significantly influences non-financial organizational performance and that this relationship is mediated by dynamic capabilities. The findings also identified partial moderation by firm characteristics on the relationship between market orientation and non-financial performance. The results further showed that the joint effect of all the variables on both financial and non-financial organizational performance was positive but not statistically significant. The empirical conceptual model is presented in Figure5.1

**Figure 5.1: Revised Empirical Model**

**Moderating variable**



**Market Orientation**

- Intelligence generation
- Intelligence dissemination
- Responsiveness to
- intelligence

**Firm Characteristics**

- Age of organization
- Size of the organization

**Dynamic Capabilities**

- Sensing capability
- Absorptive capability
- Integrative capability
- Innovative capability

**Organizational Performance**

Financial Performance (growth in)

- Loans
- Turnover
- Savings and deposits
- Shares

Non-financial Performance

- Competitive advantage
- Market performance

$H_1$    $y = 2.728 + .057 \text{ MO}$

$H_3$ $y = 2,698 + .309\text{MO} - .053\text{FC} - .018\text{MO*FC}$

$H_2$ Size r = -.015, Age r = -.202

$y = 2.493 + .230\text{MO} + .120\text{DC} - .118\text{FC}$

$H_5$

$y = 2.372 + .157 \text{ MO} + .333 \text{ DC}$

$H_4$

**Independent Variable**

**Intervening Variable**

**Dependent Variable**

**Source: Researcher**

# CHAPTER SIX: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 6.1 Introduction

This chapter presents a summary of the study findings, discussion, conclusions and recommendations. These are discussed in light of other studies that have investigated similar or the same variables in other settings. The chapter ends with the implications of the study to policy, theory and practice and recommendations for further research.

## 6.2 Summary

The premise of this study was that market orientation influences performance. Accordingly, a conceptual framework was developed and tested empirically guided by five objectives and corresponding hypotheses. The study established that majority of the SACCOs are relatively large in terms of membership although there was a negative correlation between membership and number of years in service. This provided evidence that younger SACCOs had more members than older SACCOs. The presence of a market orientation was evidenced by a high concentration of market intelligence generation and market intelligence dissemination characteristics in majority of the firms. Responsiveness to market intelligence was practiced less with firms tending to not be sure on how they would react to competition.

Majority of the SACCOs had strong dynamic capabilities, more so with sensing capability, absorptive capability and integrative capability with little variation being observed among firms. Sensing capability was portrayed by emphasis on product development efforts which demonstrated an effort to meet customer changing needs. Absorptive capability was observed by higher ability to recognize shifts in the market. It was observed that the SACCOs varied

in terms of their innovation capability with most performing poorly in terms of trying out new ideas or seeking new ways to do things. Market orientation and dynamic capabilities correlated positively with non-financial performance but had negative correlation with firm characteristics.

It was established that dynamic capabilities had a mediating effect on the relationship between market orientation and non-financial performance while no significant results were obtained for the moderating effects of firm characteristics. It was revealed that dynamic capabilities, contributed more to performance followed by market orientation and then firm characteristics. The negative contribution to performance by market orientation when jointly assessed with dynamic capabilities and firm characteristics implied that the effect of market orientation was suppressed by firm characteristics.

## 6.3 Conclusion

The study concluded that the market orientation – performance relationship holds within the Kenyan SACCO context. This means that SACCOs have an appreciation of the importance of understanding customers expressed and latent needs. However, the low contribution of market orientation to the variation in performance in the SACCO sub sector could be attributable to reliance on the common bond to attract members hence lowering the emphasis on market orientation. Subsequent opening up of the common bond requires SACCOs to adopt a more market oriented approach to enhance performance. SACCOs therefore need to invest more in developing a market orientation by seeking ways to understand their customers and in turn develop strategies that foster this orientation. Emphasis should also be put on fostering better dissemination of intelligence across departments

The study examined the mediating effect of dynamic capabilities on the relationship between market orientation and performance. The results showed that full mediation occurred when dynamic capabilities were introduced into the model. Although market orientation and dynamic capabilities independently had a significant positive influence on performance, the contribution to performance by dynamic capabilities was found to be higher. The mediating influence however suggests that the development and deployment of market orientation is influenced by dynamic capabilities. This finding underscores the importance of SACCOs understanding dynamic capability so as to ensure they invest in the right capabilities that have maximum influence on performance. A Sensing capability is observed to complement the market orientation activities that the SACCO undertakes and should thus be developed. Similarly, it is imperative that SACCO managers embrace other dynamic capabilities like absorptive and integrative capability as inputs to enhance their innovation capability which is bound to translate into more market relevant services and products.

Though non-significant results were obtained for the moderating influence of firm characteristics on the relationship between market orientation and performance it is important to investigate this effect in other contexts. Similarly, the joint effect of market orientation, firm characteristics and dynamic capabilities on performance was not significant. Due to the negative correlation between firm characteristics and performance it was concluded that firm characteristics may have a suppressor effect in this joint relationship.

## 6.4 Contributions of the Study

The study findings have contributed to knowledge in the fields of market orientation and dynamic capabilities. Additionally, the findings have implications on both policy and practice.

### 6.4.1 Contribution to Theory

The findings of the study confirmed the reliability and validity of the Jaworski and Kohli (1993) constructs and their application in the SACCO sub sector. The positive and significant findings regarding the influence of market orientation on non-financial organizational performance gives credence to the importance of this concept for business. The study further provides evidence that a high market orientation is linked to higher performance.

Secondly, the findings imply that dynamic capabilities complement the effects of market orientation on performance. The inclusion of dynamic capabilities as mediator provided an opportunity to test this fairly new area of dynamic capability theory by providing empirical evidence of its additional positive impact on performance. Finally the study demonstrated that different components of market orientation have varying effects on performance delineating the importance of market intelligence dissemination in the SACCO sector compared to market intelligence generation and responsiveness to market intelligence.

### 6.4.2 Contribution to Policy

SACCOs comprise over 50% of all cooperatives in Kenya and as financial institutions they play a critical role in financial intermediation. The study findings showed that market orientation had an influence on performance. Similarly results showed that older SACCOs seemed to perform worse than younger or newer SACCOs. Policy makers need to assess the impact of opening of the common bond on the sustenance of older SACCOs. Similarly, policies that protect and strengthen SACCOs as intermediaries need to be put in place taking into consideration the threats to this sector from micro finance institutions, mobile phone service providers and other relevant financial institutions.

### 6.4.3 Contribution to Practice

The study findings suggest that SACCOs willing to outperform competitors can do so by adopting a market orientation. More importantly, they need to continuously monitor and improve on their market intelligence dissemination activities as these provide an important link between their market intelligence generation and responsiveness to intelligence generated. Further, the SACCOs need to identify relevant dynamic capabilities that they can leverage on to enhance their market orientation and in turn performance. The market orientation and dynamic capabilities scales can be used as diagnostic tools to identify areas that need improvement.

### 6.5 Limitations of the Study

The study variables were measured using responses on a rating scale with responses ranging from 1= not at all to 5 = a very large extent. Since these measures for each variable were collected using the same procedure, the strengths of some relationships may have been exaggerated. The research instrument included reverse coded items to counter this effect.

A second limitation is attributable to the study's reliance on data obtained from managers of the SACCOs. This key informant approach may introduce bias to the data obtained. Future studies could incorporate data from the customers (members). Lastly, the study's focus on the SACCO subsector which has unique operating circumstances limits the generalizability of the study findings to other sectors. These limitations however did not detract the studies robustness and rigor.

## 6.6 Recommendations of the Study

Though the findings indicate that market orientation contributes positively to performance of SACCOs its contribution was minimal. It is recommended that Managers of SACCOs give more attention to building their market orientation through training of their staff and fostering sharing of relevant information between departments as being market oriented requires organization wide support to be effective. Having regular meetings and collecting feedback from customers will ensure that information collected is current and is acted on in a timely manner thus improving the organizations responsiveness

The establishing of a positive effect of dynamic capabilities on performance suggests that further investigation on its linkage between organizational resources and performance within other sectors is necessary. The study recommends that the impact of dynamic capabilities on the relationship between other strategic orientations and performance should be investigated. This will provide input towards obtaining additional support for the assertion that dynamic capabilities explain how resources are deployed subsequently enabling generalizability to other sectors and contexts. Further, SACCOs should embrace activities that develop and enhance their dynamic capabilities; specifically innovative capability should be fostered as it is likely to complement the SACCOs market orientation.

## 6.7 Suggestions for Further Research

This study was based on a cross-sectional survey method. Therefore, further studies should conduct a longitudinal survey by continuously monitoring the influence of market orientation on long-term organizational performance. Similarly, a mixed methods research incorporating both quantitative and in depth qualitative approach may have provided a different view of the relationships tested. Further, it is recommended that future studies within the same sector

should incorporate the views of the members as well as other key levels of management. The investigation of the contribution of other variables specifically external environment factors not investigated in the current study could further improve the robustness of the study models.

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# APPENDICES

## APPENDIX I: LETTER OF INTRODUCTION

**UNIVERSITY OF NAIROBI**
**COLLEGE OF HUMANITIES AND SOCIAL SCIENCES**
**SCHOOL OF BUSINESS**
DOCTORAL STUDIES PROGRAMME

Telephone: 4184160/1-5 Ext. 231
Email: dsp@uonbi.ac.ke

P.O. Box 30197
Nairobi, Kenya

25th May, 2015

**TO WHOM IT MAY CONCERN**
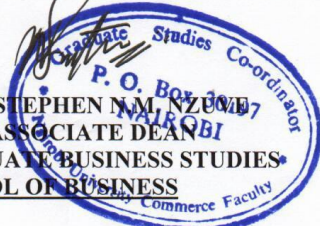
**RE: DORIS VIOLET IMBUGA MBUGUA: D80/80003/2008**

This is to certify that, **DORIS VIOLET IMBUGA MBUGUA: D80/80003/2008** is a Ph.D candidate in the School of Business, University of Nairobi. The title of her study is: **"Market Orientation, Firm Characteristics, Dynamic Capabilities and Competitive Advantage of Savings and Credit Cooperative Societies."**

The purpose of this letter therefore, is to kindly request you to assist and facilitate in carrying out the research/study in your organization. A questionnaire is herewith attached for your kind consideration and necessary action.

Data and information obtained through this exercise will be used for academic purposes only. Hence, the respondents are requested not to indicate their names anywhere on the questionnaire.

We look forward to your cooperation.

**PROF. STEPHEN N.M. NZUVE**
**FOR: ASSOCIATE DEAN**
**GRADUATE BUSINESS STUDIES**
**SCHOOL OF BUSINESS**

*MO/NWK*

**APPENDIX II: QUESTIONNAIRE**

The questionnaire is designed to collect data on Market Orientation, Firm Characteristics, Dynamic Capabilities and Performance of Deposit Taking SACCOs. The collected data will be treated with strict confidence and will be used for academic purposes only. The questionnaire is divided into four sections; kindly answer the questions in all the sections as accurately as possible.

**SECTION A: BACKGROUND INFORMATION**

Question 1.

a) Name of SACCO---------------------------------------------------------------------------------

b) Designation of Respondent   --------------------------------------------------------------------

c) Sector covered by the SACCO   **---------------------------------------------------------------------**

d) Number of members in the SACCO    **------------------------------------------------------------**

e) Number of years SACCO has been in operation    --------------------------------------------

f) Has your SACCO introduced any previously unoffered products or services into the market in the last three (3) years?

    i) Yes　　　〔　〕　　　　ii) No　〔　〕　　　iii) Do not know　〔　〕

g) Considering your answer in (f) above has this influenced the total growth in number of members in your SACCO? How?--------------------------------------------------------------------------
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## SECTION B: MARKET ORIENTATION

Q2. Please indicate the extent to which you agree with the following statements using a scale ranging from 1=not at all to 5= to a very large extent.

| | Description | 1 Not at all | 2 To a small extent | 3 To a moderate extent | 4 To a large extent | 5 To a very large extent |
|---|---|---|---|---|---|---|
| | **Market Intelligence Generation** | | | | | |
| I. | We meet with customers at least once a year to find out what products/services they will need in the future | | | | | |
| II. | We carry out in-house market research on our customers and also use externally sourced data | | | | | |
| III. | We survey customers at least once a year to assess the quality of our products/services | | | | | |
| IV. | We often engage with those who can influence our clients uptake of products /services | | | | | |
| V. | Intelligence on our competitors is generated independently by several departments | | | | | |
| VI | We periodically review the likely effect of changes in our business environment (e.g., regulations) on customers | | | | | |
| | Other (Specify) | | | | | |
| | **Market Intelligence Dissemination** | | | | | |
| I. | We have interdepartmental meetings at least once a quarter to discuss market trends and developments | | | | | |
| II. | Marketing personnel allocate time for discussing customers' future needs with other functional departments | | | | | |
| III. | We periodically circulate documents (e.g., reports, newsletters) that provide information on our customers to other departments | | | | | |

| | Description | 1 Not at all | 2 To a small extent | 3 To a moderate extent | 4 To a large extent | 5 To a very large extent |
|---|---|---|---|---|---|---|
| IV. | When something important happens to a major customer or market, various functional departments know about it in a short time | | | | | |
| V. | Data on customer satisfaction is disseminated on a regular basis | | | | | |
| VI. | When one department finds out something important about competitors, it is slow to alert other departments | | | | | |
| VII. | For one reason or another, we tend to ignore changes in our customers' product/service needs | | | | | |
| VIII. | Other (Specify) | | | | | |
| | **Responsiveness to Market Intelligence** | | | | | |
| I. | It takes us forever to decide how to respond to competitor price changes | | | | | |
| II. | For various reasons, we tend to ignore changes in our customers' product/service needs | | | | | |
| III. | We periodically review our product/service development efforts to ensure that they are in line with what customers want. | | | | | |
| IV. | If a major competitor were to launch an intensive campaign targeted at our customers, we would implement an immediate response. | | | | | |
| V. | Customer complaints fall on deaf ears in this business unit | | | | | |
| VI. | Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion | | | | | |
| VII. | Other (Specify) | | | | | |

## SECTION C: DYNAMIC CAPABILITIES

Q 3. Please indicate the extent to which you agree with the following statements using the scale ranging from 1=not at all to 5= to a very large extent.

| | Description | 1 Not at all | 2 To a small extent | 3 To a moderate extent | 4 To a large extent | 5 To a very large extent |
|---|---|---|---|---|---|---|
| | **Sensing Capability** | | | | | |
| I. | We frequently scan the environment to identify new business opportunities | | | | | |
| II. | We periodically review the likely effect of changes in our business environment on customers | | | | | |
| III. | We often review our product development efforts to ensure they are in line with what the customers want | | | | | |
| IV. | We devote a lot of time implementing ideas for new products and improving our existing products | | | | | |
| V. | Other (Specify) | | | | | |
| | **Absorptive Capability** | | | | | |
| I. | We are quick to recognize shifts in our market (e.g. competition, regulation , demography) | | | | | |
| II. | It is difficult for our firm to grasp opportunities from new external knowledge | | | | | |
| III. | We quickly analyze and interpret changing market demands | | | | | |
| IV. | We often seek to exploit new knowledge acquired by the firm | | | | | |
| V. | Other (Specify) | | | | | |

| | Description | 1 Not at all | 2 To a small extent | 3 To a moderate extent | 4 To a large extent | 5 To a very large extent |
|---|---|---|---|---|---|---|
| | **Innovation Capability (firm innovativeness)** | | | | | |
| I. | We frequently try out new ideas | | | | | |
| II. | We seek out new ways to do things | | | | | |
| III. | Our firm is creative in its methods of operation | | | | | |
| IV. | Our firm is often the first to market with new products and services | | | | | |
| V. | Innovation in our firm is perceived as too risky and is resisted | | | | | |
| VI. | Our new product introduction has increased over the last 5 years | | | | | |
| VII. | Our firm can launch new products/ services faster than our competitors | | | | | |
| VIII. | Other (Specify) | | | | | |
| | **Integrative Capability** | | | | | |
| I. | We are willing to take technology related risk | | | | | |
| II. | We carefully inter relate our actions to each other to meet changing conditions | | | | | |
| III. | We successfully combine newly acquired knowledge with existing knowledge | | | | | |
| IV. | We are able to use the new combined knowledge for new commercial or knowledge outputs | | | | | |
| V. | Other (Specify) | | | | | |

## SECTION D: COMPETITIVE ADVANTAGE

Q4. Please indicate the extent to which you agree with the following statements using the scale ranging from 1=not at all to 5= to a very large extent.

| | | Not at all | To a small extent | To a moderate extent | To a Large extent | To a very large extent |
|---|---|---|---|---|---|---|
| | **Differentiation** | | | | | |
| I. | We are constantly investing in generating new capabilities that give us an advantage compared to our competitors | | | | | |
| II. | If ever there was a new way of serving customers, our firm would be able to offer that | | | | | |
| III. | We offer products and/or services with distinctly different features from those of competing products | | | | | |
| IV. | We are first to market with new products, services or delivery methods | | | | | |
| V. | In our market we are not recognized as innovation leaders | | | | | |
| VI. | Customers view us as an innovative firm. | | | | | |
| VII. | It is difficult for our competitors to imitate us | | | | | |
| VIII. | It took us several years to build our brand name reputation- nobody can easily copy that | | | | | |
| IX. | Our advantages are embodied in the company and not in individuals- nobody can copy us by stealing our employees away from us | | | | | |
| X. | Nobody can copy our corporate routines, processes and culture | | | | | |

| | Description | 1<br>Not at all | 2<br>To a small extent | 3<br>To a moderate extent | 4<br>To a large extent | 5<br>To a very large extent |
|---|---|---|---|---|---|---|
| XI. | We have service delivery routes that are unique to our firm | | | | | |
| XII. | Our customer engagement approaches have gained recognition in the market | | | | | |
| XIII. | Other (Specify) | | | | | |
| | **Cost Leadership** | | | | | |
| I. | We offer lower transaction costs than our competitors | | | | | |
| II. | We offer competitively priced products and services | | | | | |
| III. | We enjoy a lower cost advantage than our competitors | | | | | |
| IV. | Our efficient internal operation system has decreased the cost of our products and services. | | | | | |
| V. | Our economy of scale enables us to achieve a cost advantage. | | | | | |
| VI. | Other (Specify) | | | | | |

## E. SACCO Performance

Please indicate how your firm has performed with respect to the following performance outcomes over the last three years relative to your closest competitor.

|       |                                                 | Not at all | To a small extent | To a moderate extent | To a Large extent | To a very large extent |
|-------|-------------------------------------------------|-----------|-------------------|----------------------|-------------------|------------------------|
| I.    | We have more loyal customers in our firm        |           |                   |                      |                   |                        |
| II.   | We hardly receive complaints about our services |           |                   |                      |                   |                        |
| III.  | Our customers are happy with our offerings and charges |    |                   |                      |                   |                        |
| IV.   | We have consistently had a growth in market share |         |                   |                      |                   |                        |
| V.    | We have consistently had a growth in membership |           |                   |                      |                   |                        |
| VI.   | Overall we perform better than our competitors  |           |                   |                      |                   |                        |
| VII.  | Other (specify)                                 |           |                   |                      |                   |                        |

Please give any other relevant comments that you may have concerning Market orientation, Dynamic capabilities and Performance.

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**Thank You very much for your Cooperation**

**Secondary data collection template**

| Item | Year 2011 | Year 2012 | Year 2013 |
|---|---|---|---|
| Loans to members (KShs) | | | |
| Total assets (KShs) | | | |
| Interest income from member loans (KShs) | | | |
| Member savings deposits (KShs) | | | |
| Members shares (Kshs) | | | |
| Number of members | | | |

## APPENDIX III: DEPOSIT-TAKING SACCO SOCIETIES LICENSED BY SASRA AS AT 31ST OCTOBER, 2014

| | NAME OF SOCIETY | POSTAL ADDRESS |
|---|---|---|
| 1 | 2NK SACCO SOCIETY LTD | P.O BOX 12196-10109, NYERI |
| 2 | AFYA SACCO SOCIETY LTD | P.O BOX 11607-00400, NAIROBI |
| 3 | AGRO-CHEM SACCO SOCIETY LTD | P.O BOX 94-40107, MUHORONI |
| 4 | AINABKOI FARMERS SACCO SOCIETY LTD | P.O BOX 120-30101, AINABKOI |
| 5 | AIRPORT SACCO SOCIETY LTD | P.O BOX 19001-00501, NAIROBI |
| 6 | ALL CHURCHES SACCO SOCIETY LTD | P.O BOX 2036-0100, THIKA |
| 7 | ARDHI SACCO SOCIETY LTD | P.O BOX 28782-00200, NAIROBI |
| 8 | ASILI SACCO SOCIETY LTD | P.O BOX 49064-00100, NAIROBI |
| 9 | BANANA HILL SACCO SOCIETY LTD | P.O BOX 333-00219, KARURI |
| 10 | BANDARI SACCO SOCIETY LTD | P.O BOX 95011-80104,MOMBASA |
| 11 | BARAKA SACCO SOCIETY LTD | P.O BOX 1548-10101, KARATINA |
| 12 | BARATON SACCO SOCIETY LTD | P.O BOX 2500-30100, ELDORET. |
| 13 | BIGWA SACCO SOCIETY LTD | P.O BOX 434-10300, KERUGOYA. |
| 14 | BIASHARA SACCO SOCIETY LTD | P.O BOX 1895-10100, NYERI. |
| 15 | BORESHA SACCO SOCIETY LTD | P.O BOX 80-20103, ELDAMA RAVINE |
| 16 | BURETI SACCO SOCIETY LTD | P.O BOX 601-20210, LITEN |
| 17 | BUSIA TESO TEACHERS SACCO SOCIETY LTD | P.O BOX 448-50400, BUSIA. |
| 18 | CAPITAL SACCO SOCIETY LTD | P.O BOX 1479-60200, MERU |
| 19 | CENTENARY SACCO SOCIETY LTD | P.O BOX 1207-60200, MERU |
| 20 | CHAI SACCO SOCIETY LTD | P.O BOX 278-00200, NAIROBI. |

| 21 | CHEMELIL SACCO SOCIETY LTD | P.O BOX 14-40112, AWASI. |
|---|---|---|
| 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 84-200600, MARALAL. |
| 30 | EGERTON SACCO SOCIETY LTD | P.O BOX 178-20115, EGERTON. |
| 31 | ELGON TEACHERS SACCO SOCIETY LTD | P.O BOX 27-50203, KAPSOKWONY. |
| 32 | ELIMU SACCO SOCIETY LTD | P.O BOX 10073-000100, NAIROBI. |
| 33 | ENEA SACCO SOCIETY LTD | P.O BOX 1836-10101, KARATINA. |
| 34 | FARIJI SACCO SOCIETY LTD | P.O BOX 589-00216, GITHUNGURI. |
| 35 | FORTUNE SACCO SOCIETY LTD | P.O BOX 559-10300, KERUGOYA. |
| 36 | FUNDILIMA SACCO SOCIETY LTD | P.O BOX 62000-00200, NAIROBI. |
| 37 | GASTAMECO SACCO SOCIETY LTD | P.O BOX 189-60101, MANYATTA. |
| 38 | GITHUNGURI DAIRY & COMMUNITY SACCO SOCIETY LTD | P.O BOX 896-00216, GITHUNGURI. |
| 39 | GOODFAITH SACCO SOCIETY LTD | P.O BOX 224-0022, UPLANDS. |
| 40 | GREEN HILLS COFFEE GROWERS SACCO SOCIETY | P.O BOX 59-20209, FORT TERNAN |
| 41 | GUSII MWALIMU SACCO SOCIETY LTD | P.O BOX 1335-40200, KISII. |
| 42 | HARAMBEE SACCO SOCIETY LTD | P.O BOX 47815-00100, NAIROBI. |
| 43 | HAZINA SACCO SOCIETY LTD | P.O BOX 59877-00200, NAIROBI. |

| 44 | ILKISONKO RURAL FARMERS SACCO SOCIETY LTD | P.O BOX 91-00209, LOITOKITOK |
| 45 | IMARIKA SACCO SOCIETY LTD | P.O BOX 712-80108, KILIFI. |
| 46 | IMARISHA SACCO SOCIETY LTD | P.O BOX 682-20200, KERICHO. |
| 47 | IMENTI SACCO SOCIETY LTD | P.O BOX 3192-60200, MERU. |
| 48 | ISIOLO TEACHERS SACCO SOCIETY LTD | P.O BO |
| 49 | JACARANDA SACCO SOCIETY LTD | P.O BOX 4-00232, RUIRU. |
| 50 | JAMII SACCO SOCIETY LTD | P.O BOX 57929-00200, NAIROBI. |
| 51 | JIJENGE SACCO SOCIETY LTD | P.O BOX 6222-01000, THIKA. |
| 52 | JIETEGEMEE SACCO SOCIETY LTD | P.O BOX 86937-80100, MOMBASA |
| 53 | KAIMOSI TEA SACCO SOCIETY LTD | P.O BOX 153-50305, SIRWA. |
| 54 | KAKAMEGA TEACHERS SACCO SOCIETY LTD | P.O BOX 1150-50100, KAKAMEGA. |
| 55 | KAPENGURIA SACCO SOCIETY LTD | P.O BOX 48-30600, KAPENGURIA. |
| 56 | KATHERA RURAL SACCO SOCIETY LTD | P.O BOX 251-60202, NKUBU. |
| 57 | KEIYO TEACHERS SACCO SOCIETY LTD | P.O BOX 512-30700, ITEN. |
| 58 | KENPIPE SACCO SOCIETY LTD | P.O BOX 314-00507, NAIROBI. |
| 59 | KENVERSITY SACCO SOCIETY LTD | P.O BOX 10263-00100, NAIROBI. |
| 60 | KENYA BANKERS SACCO SOCIETY LTD | P.O BOX 73236-00200, NAIROBI. |
| 61 | KENYA CANNERS SACCO SOCIETY LTD | P.O BOX 1124-01000, THIKA. |
| 62 | KENYA HIGHLANDS SACCO SOCIETY LTD | P.O BOX 2085-002000, KERICHO. |
| 63 | KENYA MIDLAND SACCO SOCIETY LTD | P.O BOX 287-20400, BOMET. |
| 64 | KENYA POLICE SACCO SOCIETY LTD | P.O BOX 51042-00200, NAIROBI |
| 65 | KENYA ACHIVERS SACCO SOCIETY LTD | P.O BOX 3080-40200, KISII |
| 66 | KIAMBA DAIRY SACCO SOCIETY LTD | P.O BOX 669-00219, KARURI. |

| 67 | KINGDOM SACCO SOCIETY LTD | P.O BOX 8017-00300, NAIROBI. |
| 68 | KIPSIGIS EDIS SACCO SOCIETY LTD | P.O BOX 228-20400, BOMET. |
| 69 | KITE SACCO SOCIETY LTD | P.O BOX 2073-40100, KISUMU. |
| 70 | KITUI TEACHERS SACCO SOCIETY LTD | P.O BOX 254-90200, KITUI. |
| 71 | KIMBILIO SACCO SOCIETY LTD | P.O BOX 81-20225, KIMULOT |
| 72 | KMFRI SACCO SOCIETY LTD | P.O BOX 80862, MOMBASA. |
| 73 | KOLENGE TEA SACCO SOCIETY LTD | P.O BOX 291-30301, NANDI HILLS |
| 74 | KONOIN SACCO SOCIETY LTD | P.O BOX 83-20403, MOGOGOSIEK. |
| 75 | KORU SACCO SOCIETY LTD | P.O BOX Private Bag- 40104, KORU. |
| 76 | K-UNITY SACCO SOCIETY LTD | P.O BOX 268-00900, KIAMBU. |
| 77 | KWALE TEACHERS SACCO SOCIETY LTD | P.O BOX 123-80403, KWALE. |
| 78 | LAIKIPIA TEACHERS SACCO SOCIETY LTD | P.O BOX 414-10400, NANAYUKI. |
| 79 | LAMU SACCO SOCIETY LTD | P.O BOX 110-80200, LAMU. |
| 80 | LENGO TUMAINI SACCO SOCIETY LTD | P.O BOX 371-80200, MALINDI |
| 81 | MAGADI SACCO SOCIETY LTD | P.O BOX 13-00205, MAGADI. |
| 82 | MAGEREZA SACCO SOCIETY LTD | P.O BOX 53131-00200, NAIROBI. |
| 83 | MAISHA BORA SACCO SOCIETY LTD | P.O BOX 30062-00100, NAIROBI. |
| 84 | MAONO DAIMA SACCO SOCIETY LTD | P.O BOX 41-20424, BOMET. |
| 85 | MARAKWET TEACHERS SACCO SOCIETY LTD | P.O BOX 118-30705, KAPSOWAR. |
| 86 | MARSABIT TEACHERS SACCO SOCIETY LTD | P.O BOX 90-90100, MARSABIT. |
| 87 | MASAKU TEACHERS SACCO SOCIETY LTD | P.O BOX 118-30705, MACHAKOS. |
| 88 | MENTOR SACCO SOCIETY LTD | P.O BOX 789-10200, MURANG'A. |
| 89 | MERU SOUTH FARMERS SACCO SOCIETY | P.O BOX 514-60400, CHUKA. |

LTD

| 90 | METROPOLITAN SACCO SOCIETY LTD | P.O BOX 871-00900, KIAMBU. |
| 91 | MMH SACCO SOCIETY LTD | P.O BOX 469-60600, MAUA. |
| 92 | MOI UNIVERSITY SACCO SOCIETY LTD | P.O BOX 23-30107, MOI UNIVERSITY. |
| 93 | MOMBASA PORT SACCO SOCIETY LTD | P.O BOX 95372-80104, MOMBASA. |
| 94 | MOMBASA TEACHERS SACCO SOCIETY LTD | P.O BOX 86515-80100, MOMBASA. |
| 95 | MUDETE FACTORY TEA GROWERS SACCO SOCIETY LTD | P.O BOX 221-50104, KAKAMEGA. |
| 96 | MUHIGIA SACCO SOCIETY LTD | P.O BOX 83-10300, KERUGOYA. |
| 97 | MUKI SACCO SOCIETY LTD | P.O BOX 398, NORTH KINANGOP. |
| 98 | MILIKI SACCO SOCIETY LTD | P.O BOX 43582-00100, NAIROBI. |
| 99 | MURATA SACCO SOCIETY LTD | P.O BOX 816-10200, MURANG'A |
| 100 | MWALIMU NATIONAL SACCO SOCIETY | P.O BOX 62641-00200, NAIROBI. |
| 101 | MWEA RICE FARMERS SACCO SOCIETY LTD | P.O BOX 272-10303. WANGURU. |
| 102 | MWETHERI SACCO SOCIETY LTD | P.O BOX 2445-60100, EMBU. |
| 103 | MWINGI MWALIMU SACCO SOCIETY LTD | P.O BOX 489-90400, MWINGI. |
| 104 | MWITO SACCO SOCIETY LTD | P.O BOX 56763-00200, NAIROBI |
| 105 | NACICO SACCO SOCIETY LTD | P.O BOX 34525-00100, NAIROBI. |
| 106 | NAFAKA SACCO SOCIETY LTD | P.O BOX 30586-00100, NAIROBI. |
| 107 | NAKU SACCO SOCIETY LTD | P.O BOX 78355-00507, NAIROBI. |
| 108 | NANDI FARMERS SACCO SOCIETY LTD | P.O BOX 333-30301, NANDI HILLS. |
| 109 | NANDI HEKIMA SACCO SOCIETY LTD | P.O BOX 211-30300, KAPSABET. |
| 110 | NANDI TEAACHERS SACCO SOCIETY LTD | P.O BOX 547-30300, KAPSABET. |

| 111 | NANYUKI EQUATOR SACCO SOCIETY LTD | P.O BOX 1098-10400, NANYUKI. |
| 112 | NAROK TEACHERS SACCO SOCIETY LTD | P.O BOX 158-20500, NAROK. |
| 113 | NASSEFU SACCO SOCIETY LTD | P.O BOX 43338-00100, NAIROBI. |
| 114 | NATION SACCO SOCIET Y LTD | P.O BOX 22022-00400, NAIROBI. |
| 115 | NAWIRI SACCO SOCIETY LTD | P.O BOX 400-60100, EMBU. |
| 116 | NDEGE CHAI SACCO SOCIETY LTD | P.O BOX 857-20200, KERICHO. |
| 117 | NDOSHA SACCO SOCIETY LTD | P.O BOX 532-60401, CHOGORIA-MAARA |
| 118 | NEST SACCO SOCIETY LTD | P.O BOX 14551-00800, NAIROBI. |
| 119 | NG'ARISHA SACCO SOCIETY LTD | P.O BOX 1199-50200, BUNGOMA. |
| 120 | NITUNZE SACCO SOCIETY LTD | P.O BOX 295-50102, MUMIAS. |
| 121 | NRS SACCO SOCIETY LTD | P.O BOX 575-00902, KIKUYU. |
| 122 | NTIMINYAKIRU SACCO SOIETY LTD | P.O BOX 3213-60200, MERU. |
| 123 | NUFAIKA SACCO SOCIETY LTD | P.O BOX 735-10300, KERUGOYA. |
| 124 | NYAHURU UMOJA SACCO SOCIETY LTD | P.O BOX 2183-20300, NYAHURURU. |
| 125 | NYALA SACCO SOCIETY LTD | P.O BOX 27-20306, NDARAGWA. |
| 126 | NYAMBENE ARIMI SACCO SOCIETY LTD | P.O BOX 493-60600, MAUA. |
| 127 | NYAMIRA TEA FARMERS SACCO SOCIETY LTD | P.O BOX 633-40500, NYAMIRA. |
| 128 | NYERI TEACHERS SACCO SOCIETY LTD | P.O BOX 1939-10100, NYERI. |
| 129 | OGEMBO TEA GROWERS SACCO SOCIETY LTD | P.O BOX 88, KENYENYA. |
| 130 | PUAN SACCO SOCIETY LTD | P.O BOX 404-20500, NAROK. |
| 131 | ORIENT SACCO SOCIETY LTD | P.O BOX 1842-0100, THIKA. |
| 132 | RACHUONYO SACCO SOCIETY LTD | P.O BOX 14-4022, KOSELE. |

| 133 | SAFARICOM SACCO SOCIETY LTD | P.O BOX 66827-00800, NAIROBI. |
|-----|---------------------------------|-------------------------------|
| 134 | SHERIA SACCO SOCIETY LTD | P.O BOX 34390-00100, NAIROBI. |
| 135 | SIMBA CHAI SACCO SOCIETY LTD | P.O BOX 977-20200, KERICHO. |
| 136 | SIRAJI SACCO SOCIETY LTD | P.O BOX PRIVATE BAG, TIMAU. |
| 137 | SMART CHAMPIONS SACCO SOCIETY LTD | P.O BOX 64-60205, GITHONGO. |
| 138 | SOLUTION SACCO SOCIETY LTD | P.O BOX 1694-60200, MERU. |
| 139 | SOT TEA GROWERS SACCO SOCIETY LTD | P.O BOX 251-20400, BOMET. |
| 140 | SOTICO SACCO SOCIETY LTD | P.O BOX 959-20406, SOTIK. |
| 141 | STIMA SACCO SOCIETY LTD | P.O BOX 75629-00100, NAIROBI. |
| 142 | SUBA TEACHERS SACCO SOCIETY LTD | P.O BOX 237-40305, MBITA. |
| 143 | SKYLINE SACCO SOCIETY LTD | P.O BOX 660-20103, ELDAMA RAVINE. |
| 144 | SUKARI SACCO SOCIETY LTD. | P.O BOX 841-50102, MUMIAS. |
| 145 | SUPA SACCO SOCIETY LTD | P.O BOX 271-20600, MARALAL. |
| 146 | STAKE KENYA SACCO SOCIETY LTD. | P.O BOX 208-40413, KEHANCHA. |
| 147 | TAI SACCO SOCIETY LTD | P.O BOX 718-00216, GITHUNGURI. |
| 148 | TAIFA SACCO SOCIETY LTD | P.O BOX 1649-10100, NYERI. |
| 149 | TAITA TAVETA TEACHERS SACCO SOCIETY LTD | P.O BOX 1186-80304, WUNDANYI. |
| 150 | TARAJI SACCO SOCIETY LTD | P.O BOX 605-40600, SIAYA. |
| 151 | TELEPOST SACCO SOCIETY LTD | P.O BOX 49557-00100, NAIROBI. |
| 152 | TEMBO SACCO SOCIETTY LTD | P.O BOX 91-00618, RUARAKA. |
| 153 | TENHOS SACCO SOCIETY LTD | P.O BOX 391-20400, BOMET. |
| 154 | TESCOM SACCO SOCIETY LTD | P.O BOX 626-10300, KERUGOYA. |
| 155 | THAMANI SACCO SOCIETY LTD | P.O BOX 467-60400, CHUKA. |
| 156 | THARAKA NITHI TEACHERS SACCO | P.O BOX 15-60400, CHUKA. |

SOCIETY LTD

| 157 | TIMES- U SACCO SOCIETY LTD | P.O BOX 310-60202, NKUBU. |
| 158 | TOWER SACCO SOCIETY LTD | P.O BOX 259-20303, OL'KALOU. |
| 159 | TRANS-NATIONAL TIMES SACCO SOCIETY LTD | P. O BOX 2274-30200, KITALE. |
| 160 | TRANSCOM SACCO SOCIETY LTD | P.O BOX 19579-00202, NAIROBI. |
| 161 | TRANS-COUNTIES SACCO SOCIETY LTD | P.O BOX 2965-30200, MOMBASA. |
| 162 | UCHONGAJI SACCO SOCIETY LTD | P.O BOX 92503-80102, MOMBASA. |
| 163 | UFANISI SACCO SOCIETY LTD | P.O BOX 2973-00200, NAIROBI. |
| 164 | UFUNDI SACCO SOCIETY LTD | P.O BOX 11705-001400, NAIROBI. |
| 165 | UKRISTO NA UFANISI WA ANGLICANA SACCO SOCIETY LTD | P.O BOX 872-00605, NAIROBI. |
| 166 | UKULIMA SACCO SOCIETY LTD | P.O BOX 4407-00100, NAIROBI. |
| 167 | UNAITAS SACCO SOCIETY LTD | P.O BOX 1145-10200, MURANG'A. |
| 168 | UNI-COUNTY SACCO SOCIETY LTD | P.O BOX 10132-20100, NAKURU. |
| 169 | UNITED NATION SACCO SOCIETY LTD | P.O BOX 30552-00100, NAIROBI. |
| 170 | UNIVERSAL TRADERS SACCO SOCIETY LTD | P.O BOX 2119-90100, MACHAKOS. |
| 171 | VIHIGA COUNTY FARMERS SACCO SOCIETY LTD | P.O BOX 309-50317, CHAVAKALI. |
| 172 | VISION AFRICA SACCO SOCIETY LTD | P.O BOX 18263-20100, NAKURU. |
| 173 | VISION POINT SACCO SOCIETY LTD | P.O BOX 42-40502, NYANSIONGO. |
| 174 | WAKENYA PAMOJA SACCO SOCIETY LTD | P.O BOX 829-40200, KISII. |
| 175 | WAKULIMA COMMERCIAL SACCO SOCIETY LTD | P.O BOX 232-10103, NYERI. |

| 176 | WANA-ANGA SACCO SOCIETY LTD | P.O BOX 34680-00501, NAIROBI. |
| 177 | WANANCHI SACCO SOCIETY LTD | P.O BOX 910-10106, NAIROBI. |
| 178 | WANANDEGE SACCO SOCIETY LTD | P.O BOX 19074-00501, NAIROBI. |
| 179 | WARENG TEACHERS SACCO SOCIETY LTD | P.O BOX 3466-30100, ELDORET. |
| 180 | WASHA SACCO SOCIETY LTD | P.O BOX 83256-80100, MOMBASA. |
| 181 | WAUMINI SACCO SOCIETY LTD | P.O BOX 66121-00800, NAIROBI. |
| 182 | WEVARSITY SACCO SOCIETY LTD | P.O BOX 873-50100, KAKAMEGA. |
| 183 | WINAS SACCO SOCIETY LTD | P.O BOX 696-60100, EMBU. |
| 184 | YETU SACCO SOCIETY LTD | P.O BOX 511-60202, NKUBU. |

## APPENDIX IV: FACTOR ANALYSIS

**KMO and Bartlett's Test**

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .701 |
|---|---|---|
| | Approx. Chi-Square | 858.975 |
| Bartlett's Test of Sphericity | df | 171 |
| | Sig. | .000 |

**Communalities**

| | Initial | Extraction |
|---|---|---|
| MO1 | 1.000 | .722 |
| MO2 | 1.000 | .629 |
| MO3 | 1.000 | .768 |
| MO4 | 1.000 | .528 |
| MO5 | 1.000 | .767 |
| MO6 | 1.000 | .740 |
| MO7 | 1.000 | .812 |
| MO8 | 1.000 | .853 |
| MO9 | 1.000 | .811 |
| MO10 | 1.000 | .812 |
| MO11 | 1.000 | .758 |
| MO12 | 1.000 | .726 |
| MO13 | 1.000 | .605 |
| MO14 | 1.000 | .638 |
| MO15 | 1.000 | .560 |
| MO16 | 1.000 | .640 |
| MO17 | 1.000 | .649 |
| MO18 | 1.000 | .643 |
| MO19 | 1.000 | .574 |

Extraction Method: Principal Component
Analysis.

**Total Variance Explained**

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 5.269 | 27.730 | 27.730 | 5.269 | 27.730 | 27.730 | 4.983 | 26.224 | 26.224 |
| 2 | 3.499 | 18.415 | 46.145 | 3.499 | 18.415 | 46.145 | 3.606 | 18.979 | 45.203 |
| 3 | 1.688 | 8.882 | 55.026 | 1.688 | 8.882 | 55.026 | 1.668 | 8.779 | 53.982 |
| 4 | 1.598 | 8.411 | 63.437 | 1.598 | 8.411 | 63.437 | 1.532 | 8.063 | 62.045 |
| 5 | 1.183 | 6.227 | 69.665 | 1.183 | 6.227 | 69.665 | 1.448 | 7.619 | 69.665 |
| 6 | .918 | 4.832 | 74.497 | | | | | | |
| 7 | .737 | 3.879 | 78.375 | | | | | | |
| 8 | .683 | 3.593 | 81.968 | | | | | | |
| 9 | .628 | 3.304 | 85.272 | | | | | | |
| 10 | .525 | 2.765 | 88.036 | | | | | | |
| 11 | .455 | 2.393 | 90.429 | | | | | | |
| 12 | .447 | 2.355 | 92.784 | | | | | | |
| 13 | .350 | 1.840 | 94.624 | | | | | | |
| 14 | .307 | 1.617 | 96.241 | | | | | | |
| 15 | .261 | 1.375 | 97.617 | | | | | | |
| 16 | .201 | 1.057 | 98.673 | | | | | | |
| 17 | .123 | .645 | 99.319 | | | | | | |
| 18 | .089 | .467 | 99.786 | | | | | | |
| 19 | .041 | .214 | 100.000 | | | | | | |

Extraction Method: Principal Component Analysis.

Scree Plot
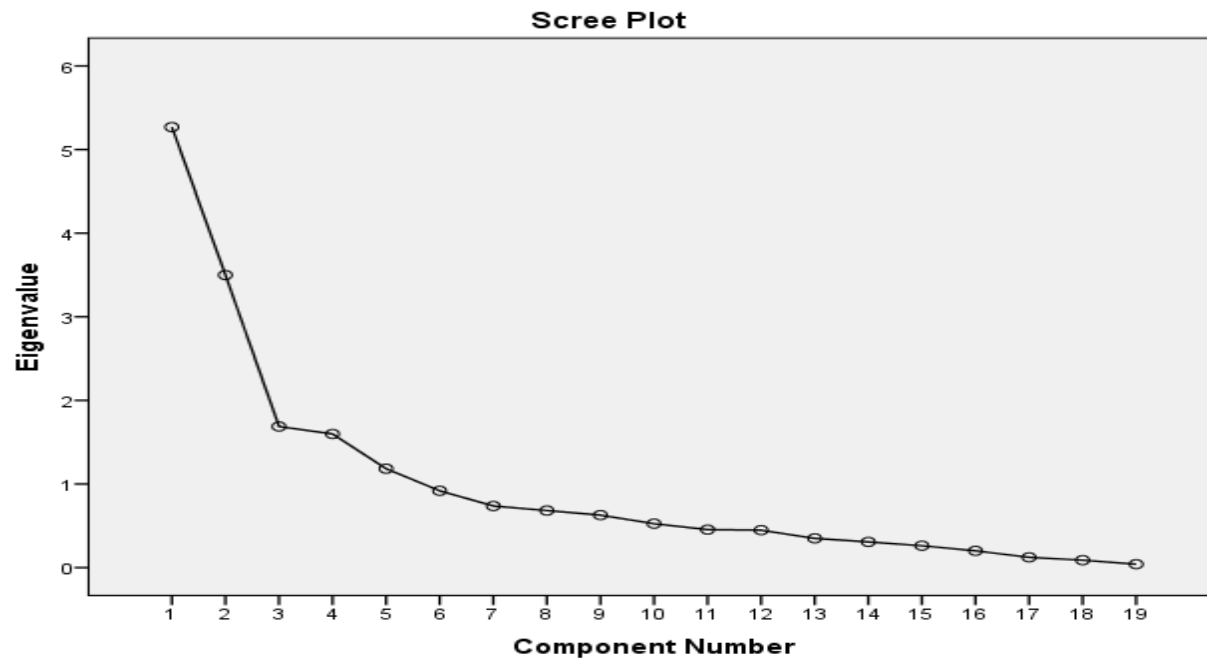
# Factor Analysis for Dynamic Capabilities

**KMO and Bartlett's Test**

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .725 |
|---|---|---|
| Bartlett's Test of Sphericity | Approx. Chi-Square | 1366.592 |
| | df | 171 |
| | Sig. | .000 |

**Communalities**

| | Initial | Extraction |
|---|---|---|
| DC1 | 1.000 | .798 |
| DC2 | 1.000 | .854 |
| DC3 | 1.000 | .718 |
| DC4 | 1.000 | .727 |
| DC5 | 1.000 | .646 |
| DC6 | 1.000 | .750 |
| DC7 | 1.000 | .679 |
| DC8 | 1.000 | .618 |
| DC9 | 1.000 | .716 |
| DC10 | 1.000 | .718 |
| DC11 | 1.000 | .613 |
| DC12 | 1.000 | .533 |
| DC13 | 1.000 | .658 |
| DC14 | 1.000 | .846 |
| DC15 | 1.000 | .890 |
| DC16 | 1.000 | .826 |
| DC17 | 1.000 | .948 |
| DC18 | 1.000 | .874 |
| DC19 | 1.000 | .843 |

Extraction Method: Principal Component
Analysis.

**Total Variance Explained**

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 6.422 | 33.798 | 33.798 | 6.422 | 33.798 | 33.798 | 5.281 | 27.797 | 27.797 |
| 2 | 3.554 | 18.707 | 52.505 | 3.554 | 18.707 | 52.505 | 4.090 | 21.528 | 49.325 |
| 3 | 2.994 | 15.758 | 68.263 | 2.994 | 15.758 | 68.263 | 3.529 | 18.576 | 67.901 |
| 4 | 1.285 | 6.765 | 75.029 | 1.285 | 6.765 | 75.029 | 1.354 | 7.127 | 75.029 |
| 5 | .961 | 5.057 | 80.086 | | | | | | |
| 6 | .748 | 3.934 | 84.020 | | | | | | |
| 7 | .604 | 3.179 | 87.199 | | | | | | |
| 8 | .460 | 2.424 | 89.622 | | | | | | |
| 9 | .402 | 2.115 | 91.737 | | | | | | |
| 10 | .342 | 1.801 | 93.538 | | | | | | |
| 11 | .269 | 1.416 | 94.954 | | | | | | |
| 12 | .243 | 1.279 | 96.233 | | | | | | |
| 13 | .203 | 1.068 | 97.300 | | | | | | |
| 14 | .161 | .846 | 98.146 | | | | | | |
| 15 | .132 | .696 | 98.843 | | | | | | |
| 16 | .092 | .484 | 99.326 | | | | | | |
| 17 | .074 | .387 | 99.713 | | | | | | |
| 18 | .034 | .181 | 99.895 | | | | | | |
| 19 | .020 | .105 | 100.000 | | | | | | |

Extraction Method: Principal Component Analysis.

## Scree Plot
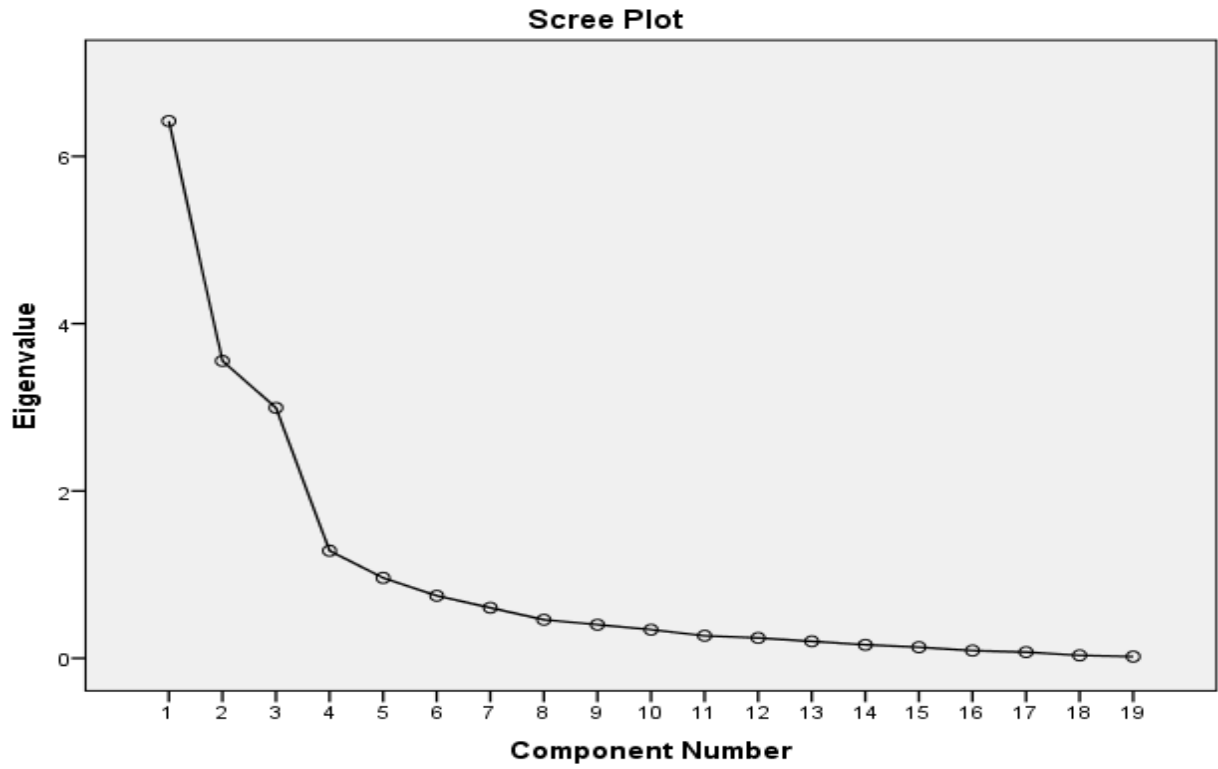


**Component Transformation Matrix**

| Component | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 1 | .818 | .565 | -.106 | .019 |
| 2 | .065 | .084 | .981 | .159 |
| 3 | -.567 | .820 | -.021 | -.074 |
| 4 | -.069 | .038 | -.158 | .984 |

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

# Factor Analysis for Competitive Advantage Items

**KMO and Bartlett's Test**

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .579 |
|---|---|---|
| Bartlett's Test of Sphericity | Approx. Chi-Square | 286.451 |
| | df | 105 |
| | Sig. | .000 |

**Communalities**

| | Initial | Extraction |
|---|---|---|
| CA1 | 1.000 | .793 |
| CA2 | 1.000 | .528 |
| CA3 | 1.000 | .697 |
| CA4 | 1.000 | .647 |
| CA5 | 1.000 | .778 |
| CA6 | 1.000 | .779 |
| CA7 | 1.000 | .454 |
| CA8 | 1.000 | .627 |
| CA9 | 1.000 | .683 |
| CA10 | 1.000 | .695 |
| CA11 | 1.000 | .576 |
| CA12 | 1.000 | .696 |
| CA13 | 1.000 | .740 |
| CA14 | 1.000 | .826 |
| CA15 | 1.000 | .801 |

Extraction Method: Principal

Component Analysis.

**Total Variance Explained**

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.227 | 21.515 | 21.515 | 3.227 | 21.515 | 21.515 | 2.535 | 16.903 | 16.903 |
| 2 | 1.810 | 12.066 | 33.582 | 1.810 | 12.066 | 33.582 | 1.989 | 13.258 | 30.161 |
| 3 | 1.761 | 11.739 | 45.321 | 1.761 | 11.739 | 45.321 | 1.679 | 11.191 | 41.352 |
| 4 | 1.323 | 8.822 | 54.143 | 1.323 | 8.822 | 54.143 | 1.540 | 10.265 | 51.617 |
| 5 | 1.199 | 7.996 | 62.138 | 1.199 | 7.996 | 62.138 | 1.430 | 9.533 | 61.150 |
| 6 | 1.001 | 6.671 | 68.810 | 1.001 | 6.671 | 68.810 | 1.149 | 7.660 | 68.810 |
| 7 | .881 | 5.872 | 74.682 | | | | | | |

| | | | |
|---|---|---|---|
| 8 | .801 | 5.338 | 80.021 |
| 9 | .669 | 4.463 | 84.483 |
| 10 | .618 | 4.120 | 88.603 |
| 11 | .480 | 3.199 | 91.802 |
| 12 | .408 | 2.720 | 94.522 |
| 13 | .336 | 2.242 | 96.764 |
| 14 | .287 | 1.915 | 98.679 |
| 15 | .198 | 1.321 | 100.000 |

Extraction Method: Principal Component Analysis.



**Scree Plot**
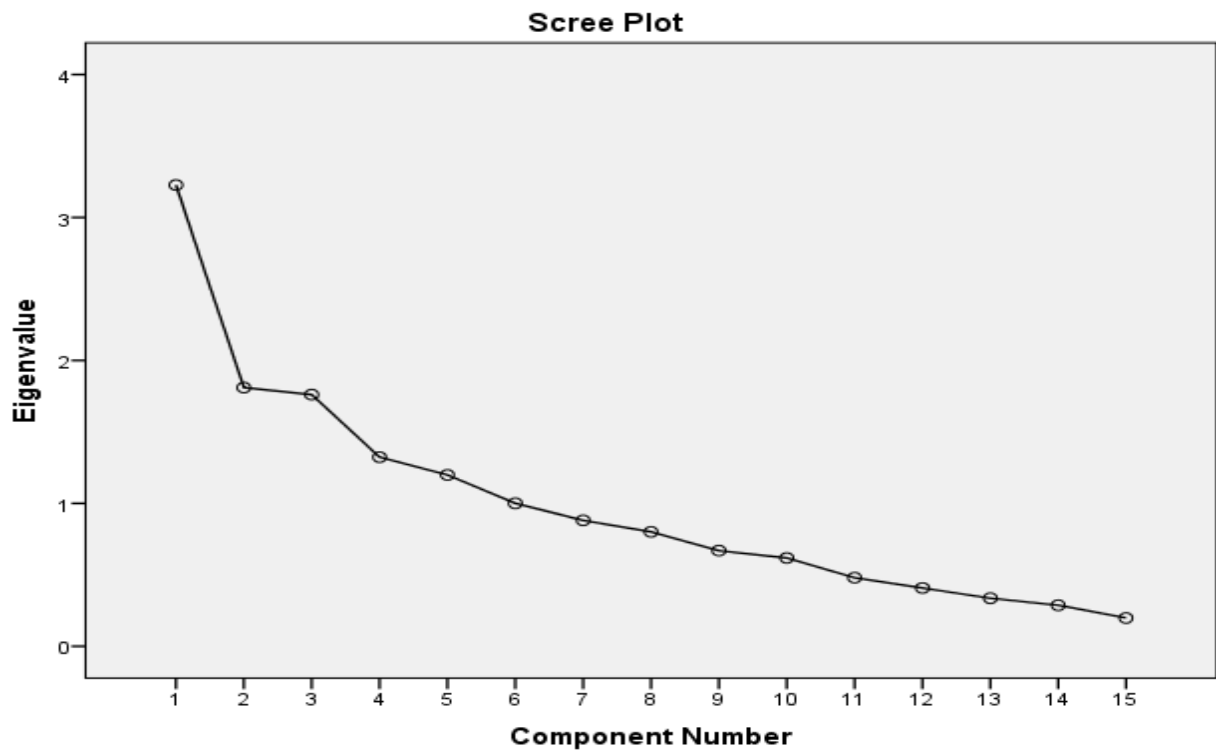
**Component Transformation Matrix**

| Component | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1 | .793 | .556 | .040 | .040 | .187 | .153 |
| 2 | .062 | -.246 | .872 | .294 | .286 | -.081 |
| 3 | -.253 | .388 | .068 | .702 | -.465 | .268 |
| 4 | .429 | -.642 | -.372 | .507 | -.008 | .086 |
| 5 | -.339 | .110 | -.230 | .199 | .781 | .412 |
| 6 | -.064 | .234 | -.204 | .349 | .238 | -.849 |

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

# APPENDIX V: SUPPLEMENTARY STATISTICAL ANALYSIS

## B1: Correlation analysis of Market Orientation, Dynamic Capabilities and Non-financial Performance

**Correlations**

| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Market orientation | Pearson Correlation | 1 | | | | | | | | | |
| | Sig. (2-tailed) | | | | | | | | | | |
| Dynamic capabilities | Pearson Correlation | .442** | 1 | | | | | | | | |
| | Sig. (2-tailed) | .000 | | | | | | | | | |
| Non-financial performance | Pearson Correlation | .239* | .255* | 1 | | | | | | | |
| | Sig. (2-tailed) | .035 | .024 | | | | | | | | |
| Responsiveness to MI | Pearson Correlation | .630** | .380** | .222 | 1 | | | | | | |
| | Sig. (2-tailed) | .000 | .001 | .050 | | | | | | | |
| Market intelligence dissemination | Pearson Correlation | .809** | .241* | .312** | .335** | 1 | | | | | |
| | Sig. (2-tailed) | .000 | .033 | .005 | .003 | | | | | | |
| Market intelligence generation | Pearson Correlation | .661** | .314** | -.019 | .003 | .384** | 1 | | | | |
| | Sig. (2-tailed) | .000 | .005 | .871 | .978 | .001 | | | | | |
| Sensing capability | Pearson Correlation | .346** | .524** | -.006 | -.018 | .222 | .520** | 1 | | | |
| | Sig. (2-tailed) | .002 | .000 | .959 | .872 | .051 | .000 | | | | |
| Absorptive capability | Pearson Correlation | .206 | .691** | .219 | .311** | .040 | .103 | .213 | 1 | | |
| | Sig. (2-tailed) | .071 | .000 | .054 | .006 | .729 | .368 | .061 | | | |
| Innovation capability | Pearson Correlation | .467** | .783** | .307** | .574** | .289* | .139 | .021 | .527** | 1 | |
| | Sig. (2-tailed) | .000 | .000 | .006 | .000 | .010 | .225 | .858 | .000 | | |
| Integrative capability | Pearson Correlation | .111 | .653** | .104 | .020 | .055 | .130 | .346** | .090 | .355** | 1 |
| | Sig. (2-tailed) | .335 | .000 | .363 | .864 | .634 | .256 | .002 | .433 | .001 | |

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

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

## B2: Regression analysis results of Market orientation indicators and Non-financial Performance

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .361[a] | .131 | .095 | .31180 | .131 | 3.707 | 3 | 74 | .015 |

a. Predictors: (Constant), Market intelligence generation, Responsiveness to MI, Market intelligence dissemination

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| | Regression | 1.081 | 3 | .360 | 3.707 | .015[b] |
| 1 | Residual | 7.194 | 74 | .097 | | |
| | Total | 8.276 | 77 | | | |

a. Dependent Variable: Non-financial performance

b. Predictors: (Constant), Market intelligence generation, Responsiveness to MI, Market intelligence dissemination

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| | (Constant) | 2.698 | .510 | | 5.293 | .000 |
| 1 | Market intelligence dissemination | .292 | .112 | .330 | 2.623 | .011 |
| | Responsiveness to MI | .086 | .089 | .112 | .966 | .337 |
| | Market intelligence generation | -.105 | .086 | -.146 | -1.229 | .223 |

a. Dependent Variable: Non-financial performance

## B3: Regression analysis results for Market Orientation indicators and Competitive Advantage

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .352[a] | .124 | .088 | .31913 | .124 | 3.486 | 3 | 74 | .020 |

a. Predictors: (Constant), Market intelligence generation, Responsiveness to MI, Market intelligence dissemination

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 1.065 | 3 | .355 | 3.486 | .020[b] |
| | Residual | 7.537 | 74 | .102 | | |
| | Total | 8.602 | 77 | | | |

a. Dependent Variable: Competitive advantage

b. Predictors: (Constant), Market intelligence generation, Responsiveness to MI, Market intelligence dissemination

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.435 | .522 | | 4.667 | .000 |
| | Market intelligence dissemination | .231 | .114 | .256 | 2.022 | .047 |
| | Responsiveness to MI | .140 | .091 | .180 | 1.539 | .128 |
| | Market intelligence generation | -.019 | .088 | -.026 | -.218 | .828 |

a. Dependent Variable: competitive advantage

**B4: Regression analysis results for Market Orientation indicators and Financial Performance**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .195[a] | .038 | -.021 | .51386 | .038 | .648 | 3 | 49 | .588 |

a. Predictors: (Constant), Market intelligence generation, Responsiveness to MI, Market intelligence dissemination

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .513 | 3 | .171 | .648 | .588[b] |
| | Residual | 12.939 | 49 | .264 | | |
| | Total | 13.452 | 52 | | | |

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Market intelligence generation, Responsiveness to MI, Market intelligence dissemination

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.718 | .980 | | 1.753 | .086 |
| | Market intelligence dissemination | -.014 | .218 | -.011 | -.065 | .949 |
| | Responsiveness to MI | .197 | .175 | .169 | 1.123 | .267 |
| | Market intelligence generation | .113 | .172 | .102 | .654 | .516 |

a. Dependent Variable: Financial Performance

# APPENDIX VI: CROSS TABULATION OF THE DEMOGRAPHIC DATA

## C1: Category of Sacco * Introduction of new products

**Crosstab**

| Category of Sacco | Introduction of new products | | | Total |
|---|---|---|---|---|
| | Yes | No | Do not Know | |
| Government based | 11 | 1 | 0 | 12 |
| Farmer based | 13 | 7 | 0 | 20 |
| Parastatal based | 6 | 0 | 0 | 6 |
| Teacher based | 10 | 0 | 1 | 11 |
| Private firm based | 15 | 4 | 0 | 19 |
| Total | 55 | 12 | 1 | 68 |

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 13.522[a] | 8 | .095 |
| Likelihood Ratio | 14.368 | 8 | .073 |
| Linear-by-Linear Association | .000 | 1 | .996 |
| N of Valid Cases | 68 | | |

a. 11 cells (73.3%) have expected count less than 5. The minimum expected count is .09.

**Symmetric Measures**

| | | Value | Asymp. Std. Error[a] | Approx. T[b] | Approx. Sig. |
|---|---|---|---|---|---|
| Interval by Interval | Pearson's R | -.001 | .112 | -.005 | .996[c] |
| Ordinal by Ordinal | Spearman Correlation | -.005 | .117 | -.042 | .967[c] |
| N of Valid Cases | | 68 | | | |

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

## C2: Category of Sacco * Size by assets

**Crosstab**

| Category of Sacco | Size by assets | | | Total |
|---|---|---|---|---|
| | Small size assets<1billion | Middle size assets>1billion<4billion | Large size assets>4billion | |
| Government based | 4 | 3 | 5 | 12 |
| Farmer based | 8 | 6 | 0 | 14 |
| Parastatal based | 4 | 2 | 0 | 6 |
| Teacher based | 3 | 5 | 1 | 9 |
| Private firm based | 12 | 5 | 2 | 19 |
| Total | 31 | 21 | 8 | 60 |

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 14.322[a] | 8 | .074 |
| Likelihood Ratio | 14.404 | 8 | .072 |
| Linear-by-Linear Association | 2.114 | 1 | .146 |
| N of Valid Cases | 60 | | |

a. 11 cells (73.3%) have expected count less than 5. The minimum expected count is .80.

**Symmetric Measures**

| | | Value | Asymp. Std. Error[a] | Approx. T[b] | Approx. Sig. |
|---|---|---|---|---|---|
| Interval by Interval | Pearson's R | -.189 | .138 | -1.468 | .147[c] |
| Ordinal by Ordinal | Spearman Correlation | -.194 | .136 | -1.507 | .137[c] |
| N of Valid Cases | | 60 | | | |

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

# C3: Category of Sacco * total growth in turnover, deposits and loans

**Crosstab**

| Category of Sacco | total growth in turnover deposits and loans | | | | | | Total |
|---|---|---|---|---|---|---|---|
| | below 0 | 0-5 percent | 6-10 percent | 11-15 percent | 16-20 percent | 21 percent and above | |
| Government based | 3 | 1 | 1 | 3 | 3 | 0 | 11 |
| Farmer based | 1 | 2 | 5 | 3 | 3 | 1 | 15 |
| Parastatal based | 1 | 0 | 2 | 3 | 0 | 0 | 6 |
| Teacher based | 2 | 0 | 1 | 5 | 1 | 0 | 9 |
| Private firm based | 3 | 1 | 3 | 3 | 1 | 4 | 15 |
| Total | 10 | 4 | 12 | 17 | 8 | 5 | 56 |

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 20.913[a] | 20 | .402 |
| Likelihood Ratio | 22.999 | 20 | .289 |
| Linear-by-Linear Association | .346 | 1 | .556 |
| N of Valid Cases | 56 | | |

a. 30 cells (100.0%) have expected count less than 5. The minimum expected count is .43.

**Symmetric Measures**

| | | Value | Asymp. Std. Error[a] | Approx. T[b] | Approx. Sig. |
|---|---|---|---|---|---|
| Interval by Interval | Pearson's R | .079 | .145 | .585 | .561[c] |
| Ordinal by Ordinal | Spearman Correlation | .065 | .146 | .482 | .632[c] |
| N of Valid Cases | | 56 | | | |

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

# C4: Number of years in operation * Introduction of new products

**Crosstab**

| Number of years in operation | Introduction of new products | | | Total |
|---|---|---|---|---|
| | Yes | No | Do not Know | |
| 0-10 years | 5 | 2 | 0 | 7 |
| 11-20 years | 17 | 2 | 0 | 19 |
| 21-30 years | 9 | 2 | 0 | 11 |
| 31-40 years | 5 | 1 | 0 | 6 |
| Above 40 years | 19 | 5 | 1 | 25 |
| Total | 55 | 12 | 1 | 68 |

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 3.153[a] | 8 | .924 |
| Likelihood Ratio | 3.447 | 8 | .903 |
| Linear-by-Linear Association | .640 | 1 | .424 |
| N of Valid Cases | 68 | | |

a. 11 cells (73.3%) have expected count less than 5. The minimum expected count is .09.

**Symmetric Measures**

| | | Value | Asymp. Std. Error[a] | Approx. T[b] | Approx. Sig. |
|---|---|---|---|---|---|
| Interval by Interval | Pearson's R | .098 | .124 | .798 | .428[c] |
| Ordinal by Ordinal | Spearman Correlation | .074 | .128 | .607 | .546[c] |
| N of Valid Cases | | 68 | | | |

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

## C5: Number of years in operation * Size by assets

**Crosstab**

| Number of years in operation | Size by assets | | | Total |
|---|---|---|---|---|
| | Small size assets<1billion | Middle size assets>1billion<4billion | Large size assets>4billion | |
| 0-10 years | 5 | 0 | 0 | 5 |
| 11-20 years | 12 | 4 | 0 | 16 |
| 21-30 years | 4 | 4 | 1 | 9 |
| 31-40 years | 4 | 2 | 0 | 6 |
| Above 40 years | 6 | 11 | 7 | 24 |
| Total | 31 | 21 | 8 | 60 |

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 18.994[a] | 8 | .015 |
| Likelihood Ratio | 23.222 | 8 | .003 |
| Linear-by-Linear Association | 14.778 | 1 | .000 |
| N of Valid Cases | 60 | | |

a. 11 cells (73.3%) have expected count less than 5. The minimum expected count is .67.

**Symmetric Measures**

| | | Value | Asymp. Std. Error[a] | Approx. T[b] | Approx. Sig. |
|---|---|---|---|---|---|
| Interval by Interval | Pearson's R | .500 | .089 | 4.403 | .000[c] |
| Ordinal by Ordinal | Spearman Correlation | .514 | .096 | 4.566 | .000[c] |
| N of Valid Cases | | 60 | | | |

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

## C6: Number of Years in the Operation * total growth in turnover deposits and loans

**Crosstab**

| Number of Years in the operation | total growth in turnover deposits and loans | | | | | | Total |
|---|---|---|---|---|---|---|---|
| | below 0 | 0-5 percent | 6-10 percent | 11-15 percent | 16-20 percent | 21 percent and above | |
| 0-10 years | 2 | 0 | 0 | 0 | 1 | 0 | 3 |
| 11-20 years | 4 | 1 | 5 | 5 | 0 | 1 | 16 |
| 21-30 years | 2 | 2 | 2 | 3 | 0 | 1 | 10 |
| 31-40 years | 2 | 0 | 1 | 0 | 2 | 0 | 5 |
| Above 40 years | 0 | 1 | 4 | 9 | 5 | 3 | 22 |
| Total | 10 | 4 | 12 | 17 | 8 | 5 | 56 |

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 26.913[a] | 20 | .138 |
| Likelihood Ratio | 34.731 | 20 | .022 |
| Linear-by-Linear Association | 8.971 | 1 | .003 |
| N of Valid Cases | 56 | | |

a. 29 cells (96.7%) have expected count less than 5. The minimum expected count is .21.

**Symmetric Measures**

| | | Value | Asymp. Std. Error[a] | Approx. T[b] | Approx. Sig. |
|---|---|---|---|---|---|
| Interval by Interval | Pearson's R | .404 | .113 | 3.244 | .002[c] |
| Ordinal by Ordinal | Spearman Correlation | .402 | .115 | 3.229 | .002[c] |
| N of Valid Cases | | 56 | | | |

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

# C7: Number of Members  * Introduction of new products

**Crosstab**

| Number of Members | Introduction of new products | | | Total |
|---|---|---|---|---|
| | Yes | No | Do not Know | |
| 0-15000 | 2 | 0 | 0 | 2 |
| 15001 - 30000 | 7 | 4 | 0 | 11 |
| 30001-45000 | 12 | 6 | 0 | 18 |
| 45001-60000 | 24 | 1 | 0 | 25 |
| 60001 and above | 10 | 1 | 1 | 12 |
| Total | 55 | 12 | 1 | 68 |

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 15.413[a] | 10 | .118 |
| Likelihood Ratio | 14.930 | 10 | .135 |
| Linear-by-Linear Association | 1.024 | 1 | .312 |
| N of Valid Cases | 68 | | |

a. 14 cells (77.8%) have expected count less than 5. The minimum expected
count is .01.

**Symmetric Measures**

| | | Value | Asymp. Std. Error[a] | Approx. T[b] | Approx. Sig. |
|---|---|---|---|---|---|
| Interval by Interval | Pearson's R | -.124 | .143 | -1.012 | .315[c] |
| Ordinal by Ordinal | Spearman Correlation | -.203 | .126 | -1.682 | .097[c] |
| N of Valid Cases | | 68 | | | |

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

## C8: Number of Members * Size by assets

**Crosstab**

| Number of Members | Size by assets | | | Total |
|---|---|---|---|---|
| | Small size assets<1billion | Medium size assets>1billion<4 billion | Large size assets>4bill ion | |
| 0-15000 | 2 | 0 | 0 | 2 |
| 15001 - 30000 | 6 | 4 | 0 | 10 |
| 30001-45000 | 10 | 4 | 1 | 15 |
| 45001-60000 | 10 | 8 | 3 | 21 |
| 60001 and above | 3 | 5 | 4 | 12 |
| Total | 31 | 21 | 8 | 60 |

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 13.007[a] | 10 | .223 |
| Likelihood Ratio | 14.746 | 10 | .142 |
| Linear-by-Linear Association | 7.591 | 1 | .006 |
| N of Valid Cases | 60 | | |

a. 13 cells (72.2%) have expected count less than 5. The minimum expected count is .13.

**Symmetric Measures**

| | | Value | Asymp. Std. Error[a] | Approx. T[b] | Approx. Sig. |
|---|---|---|---|---|---|
| Interval by Interval | Pearson's R | .359 | .102 | 2.926 | .005[c] |
| Ordinal by Ordinal | Spearman Correlation | .347 | .113 | 2.817 | .007[c] |
| N of Valid Cases | | 60 | | | |

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

## C9: Number of Members * total growth in turnover deposits and loans

**Crosstab**

| Number of Members | total growth in turnover deposits and loans | | | | | | Total |
|---|---|---|---|---|---|---|---|
| | below 0 | 0-5 percent | 6-10 percent | 11-15 percent | 16-20 percent | 21 percent and above | |
| 0-15000 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 15001 - 30000 | 2 | 0 | 2 | 1 | 1 | 2 | 8 |
| 30001-45000 | 2 | 1 | 3 | 4 | 3 | 2 | 15 |
| 45001-60000 | 4 | 2 | 6 | 7 | 2 | 0 | 21 |
| 60001 and above | 2 | 1 | 1 | 4 | 2 | 0 | 10 |
| Total | 10 | 4 | 12 | 17 | 8 | 5 | 56 |

**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 18.109[a] | 25 | .838 |
| Likelihood Ratio | 20.159 | 25 | .738 |
| Linear-by-Linear Association | 2.404 | 1 | .121 |
| N of Valid Cases | 56 | | |

a. 35 cells (97.2%) have expected count less than 5. The minimum expected count is .07.

**Symmetric Measures**

| | | Value | Asymp. Std. Error[a] | Approx. T[b] | Approx. Sig. |
|---|---|---|---|---|---|
| Interval by Interval | Pearson's R | -.209 | .135 | -1.571 | .122[c] |
| Ordinal by Ordinal | Spearman Correlation | -.183 | .138 | -1.369 | .177[c] |
| N of Valid Cases | | 56 | | | |

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.