INFLUENCE OF FINANCIAL MANAGEMENT PRACTICES ON THE GROWTH OF FAMILY BUSINESSES IN KENYA

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Influence of Financial Management Practices on the Growth of Family Businesses in Kenya

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DECLARATION

This thesis is my original work and has not been presented for any degree in any other university.

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This thesis has been submitted for examination with my approval as university supervisor.

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DEDICATION

To my late father, Ali Omar Naji, who never lived to see the fruits of his first-born son. You were not only a father, but a friend and an inspiration to the whole family. May Allah rest his soul in eternal peace; To my mum, Sauda Msellem Khalfan – thank you for your love, encouragement and support in all that I do. You are the most wonderful and special gift I have; To my wife, Rafat Mbarak, son, Raed Nagib and daughter, Nuwar Nagib – for their love, prayers, endless support and understanding throughout the period of my study; To my siblings, Omar, Iman, Msellem and Fatma – how I wish this work would serve to inspire, challenge and direct them to originality, competency and self-actualization.

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ABBREVIATION AND ACRONYMS

AC	–	Access to Credit
ACCA	–	Associate of Chartered Certified Accountants
AFI	–	Access to Financial Information
AIF	–	Allocation of Funds and Income
ANOVA	–	Analysis of Variance
CEO	–	Chief Executive Officer
CNW	–	Change in net-worth
COF	–	Cash Outflow
CT	–	Cash Transactions
FEK	–	Financial-economic Knowledge
FFMC	–	Family Financial Management Competency
FSD	–	Financial Sector Deepening
GDP	–	Gross Domestic Product
GNP	–	Gross National Product
L	–	Liquidity
REV	–	Revenues
SMEs	–	Small & Medium Enterprises
WCM	–	Working Capital Management

DEFINITION OF TERMS

Family Business – Is a business managed with the intention to shape and pursue the vision of the business held by a dominant coalition, controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families (Wee & Ibrahim, 2012).

Financial Management - is concerned with all areas of management, which involve finance, not only the sources and uses of finance in the enterprises, but also the financial implications of investment, production, marketing or personnel decisions and the total performance of the enterprise. Thus, financial management is concerned with what is going to happen in the future and its purpose is to look for ways to maximize the effectiveness of financial resources (Krah Aveh & Addo, 2014).

Financial Literacy – Financial literacy is the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being. It entails the knowledge of properly making decisions pertaining to certain personal finance areas like real estate, insurance, investing saving tax planning and retirement. It also involves intimate knowledge of concepts like interest rates financial planning, time value for money, borrowings and savings profit and loss assets and liabilities, etc. (Njoroge & Ondigo, 2013).

Financing – Sources of funds for business operations. They may be internal or external sources. The basic internal financing sources are the retained or undistributed profits from the business obtained in previous years and fresh capital injections by the owner(s) of these firms. External financing can be provided by financial institutions, suppliers and other types of creditors (Harash, Al-tamimi & Alsaadi, 2014).

Cash Management – Cash management is the practice of planning and controlling cash flows into and out of the business, cash flows within the business, and cash balances held by a business at a point in time (Akinyomi, 2014).

Growth – Change in size or magnitude of a firm from one period of time to another. Marked and sustainable increase in assets, market share, profitability, customer base, branch network, capital base, and social impact (Kavale, Mugambi & Namusonge, 2014).

ABSTRACT

There are plenty of reasons why families go into business. The purpose of this study was to determine the influence of financial management practices on the growth of family businesses in Kenya. Five specific objectives formed the basis of this study: to determine the influence of financial literacy, financing, allocation of financial resources, cash management and moderation effect of family characteristics (that is, family financial management competency) on financial management practices and growth of family businesses in Kenya. Information asymmetry theory, pecking order theory, trade-off theory, and cash management theory were used for the study. Mixed research approach was adopted. The target population comprised all registered family businesses across different business sectors in the County. There were 48,187 registered businesses as at 31stDecember, 2015. A sample size of 397 family businesses was drawn from the target population using Slovin's formula. Stratified sampling technique was used to select the sample size of 397 from the different business/activity sectors. Simple random sampling was then used to select the sample. Both primary and secondary data were collected. The questionnaires were the primary tools used for collection of data where they were self-administered by the researcher and response of 309 was obtained. In analyzing the responses, the Statistical Package for Social Science (SPSS) Version 22.0 was used to present descriptive statistics such as percentages, frequency distributions, measures of central tendencies, and measures of variations. Data analysis and interpretation was based on descriptive statistics and measures of dispersion as well as inferential statistics; bivariate and multivariate regression analysis, Pearson correlation, factor analysis and analysis of variance were employed. Multi linear regression model was used in explaining the influence of financial management practices on the growth of family businesses and the moderating effect of family characteristics on financial management practices and growth of family businesses. The study results indicate that financial management practices (measures of financial literacy, financing, allocation of financial resources and cash management) had significant and positive influence on the growth (in terms of revenues and change in net-worth) of family businesses. The study also revealed that there was positive and significant moderation effect of family characteristics (family financial management competency) on all the indicators of financial management practices and growth of family businesses in Kenya. The study recommends that managers should be able to enhance their financial management practices through acquisition of financial information to make informed financial decisions. Financing should be adopted but at lower levels to reduce bankruptcy risks, maintain control of the business as

well as allocating business funds and income into viable projects that will increase the value of the firm. The study further recommended family businesses to have stringent cash management policies on transactions in order to optimize use of cash and maintain optimum liquidity.

CHAPTER ONE

INTRODUCTION

1.1Background of the Study

Family businesses have dominated the economic landscape around the world (Liu, Yang & Zhang, 2010; Wee& Ibrahim, 2012), contribute an average of 75% of the GDP (Prior, 2012; Buang, Ganefri & Sidek, 2013) and are widely seen as the backbone of the economy (Schwass, 2013).Family businesses, particularly the small-to-medium sized, are the grassroots of the global economy (Wallace, 2010), and are clearly the majority of all the businesses in the world (Buang *et al*., 2013). By their very nature, most SMEs are family businesses (Maalu, MacCormick, K'Obobyo & Machuki, 2013).Such family businesses continue to dominate most of the world's economies. Whether large or small, family businesses play an important role in emerging and developed economies (Wee & Ibrahim, 2012).

Wee and Ibrahim (2012) defined a family business as "a business managed with the intention to shape and pursue the vision of the business held by a dominant coalition, controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families". It is the intersection between family members, the family, and the business that is believed to represent the unique set of features that explain performance differences between family and other businesses (Wee& Ibrahim, 2012).

Regardless of how broadly or narrowly family businesses are defined, it is critical to recognize that they make significant contributions to the Gross Domestic Product (GDP) and total wages earned in their country (Wallace, 2010). Therefore, explanation of family business purely in cultural terms are too convenient and simplistic (Wee & Ibrahim, 2012). Identifying an appropriate definition and measure of business success and growth is especially important in the study of family businesses. The definitions of

success that have previously been used in family business research are often ambiguous, considering that each business strives to achieve a host of differing financial and non-financial goals (Wallace, 2010).

The importance of small and medium-sized enterprises in creating jobs and economic wealth is globally recognized. Among SMEs, family businesses are fast becoming the dominant form of business enterprise in both developed and developing countries. In developing countries, in particular, the social and economic importance of family businesses can hardly be over-stated. More importantly, however, is the fact that their influence can be expected to increase substantially in the future. Family owners and family managers might not always be profit-oriented, as the family business believes they must satisfy deep social and emotional needs of family members, such as the need for belonging, affection, intimacy and sense of identity (Phillips, 2012).

Buang *et al.* (2013) showed that founding families can easily work to benefit their own interests at the expense of other shareholders by treating the business as a family employment-orientation institution. Family firms were more likely than non-family firms to report average or below average financial performance. Moreover, families may pursue actions that maximize their personal utility resulting in poorer performance compared to non-family firms. In an effort to expand the family business into a strong and successful business, all members need to develop the business practices and a certain philosophy as well as maintaining a good balance between family and business.

Motwani (2016) points out that a family business is seen as significant source for economic growth and development in today's world. Family businesses have the potential to outperform any other form of business organization through their inherent synergies between capital and management. Buang *et al.* (2013) confirms that due to closure of the family firm, succession process is not effective to give serious

implications not only to family members and non-family employees, but also to the overall economy generally.

Performance of family businesses are better than non-family businesses, but the returns generated by the family businesses are absorbed by inefficiencies related to the family. Therefore, various factors driving the family business can not last long.

Krah, Aveh and Addo (2014), assert that financial management is one of the several functional areas of management but it is central to the success of any business. This emphasizes the central role and position of financial management in relation to the other specific areas of business management. Financial management is concerned with all areas of management, which involve finance, not only the sources and uses of finance in the enterprises, but also the financial implications of investment, production, marketing or personnel decisions and the total performance of the enterprise. Thus, financial management is concerned with what is going to happen in the future and its purpose is to look for ways to maximize the effectiveness of financial resources. In addition, financial management involves raising the needed funds to finance the firm's assets and activities, the allocation of these scarce funds between competing uses, and with ensuring that the funds are used effectively in achieving the firm's overall goal.

A key influence of financial management practices in any business entity is financial literacy of the family business owners or managers. Njoroge and Ondigo (2013), explains financial literacy as the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being. It entails the knowledge of properly making decisions pertaining to certain finance areas like real estate, insurance, investing saving tax planning and retirement. It also involves intimate knowledge of concepts like interest rates financial planning, time value for money, borrowings and savings profit and loss assets and liabilities etc. In the world all over, financial literacy has been given a lot of attention and is believed to be a key ingredient to personal finance success and overall growth of their businesses; it is relevant to anyone who makes decision about money. Several countries in the world are promoting financial education as a tool of fighting poverty; some of the countries involved are Egypt,

Uganda, Ghana, South Africa, Tanzania, and also Kenya. In Kenya, key efforts have been made by the government through Financial Sector Deepening (FSD), which educates people to enhance financial freedom.

Janor, Yakob, Hashim, and Wel (2016) assert that financial decision making has been widely acknowledged as one of the important factors that influences financial capability and financial well-being. Thus, identifying factors that are significantly associated with financial decisions is relevant and is one of the crucial issues for individual and national development. With the dynamism in the nature of current financial landscape, not only does it highlights the importance of research in investment decision but also on the level of financial literacy and its impact on financial decision. Moreover, wealth accumulation has been identified as an important implication for the relative well-being of households.

Since non-economic goals play an important role in the case of family businesses, their behavior is to some extent different than other types of business. One of the behavior is their choice of financing and the structure of their capital (Mohamadi, 2012). Alfred and Xaio (2013) confirm that financing family business is not a not an easy task, especially when financing with debt capital, but the problem worsens when financing is through equity. Factors that are likely to affect financing and investment decisions in family business include family culture, family cohesion, age and size of the family and firm, individual and family risk orientations, entrepreneurial characteristics, capital structure – including level and type of debt (short-term versus long-term), and family and business goals.

Phillips (2012) points out that the majority of non-family businesses use share capital, retained profits and bank loans, although five out of thirteen non-family businesses use bank overdrafts as methods of financing. Conversely, the family businesses use methods of venture capital and retained profits rather than loan capital and share capital. Some of the family businesses obtain intercompany loans as a method of sustaining their business. However, very few of the family businesses borrow loans to assist their businesses although majority of owner-managers prefer to keep their firms small.

For firms that grow, the pace may be faster for non-family than family firms, partly a consequence of the sources from which growth is financed; with family firms preferring internal sources and avoiding external long-term debt.

Access to finance is essential to the survival and growth of any business enterprise. As it is the life-blood of any business enterprise, no matter how well managed, no enterprise can survive without enough funds for working capital, fixed assets investment, employment of skilled employees, etc. Businesses need financing for two basic purposes: (1) financing the production cycle since it has been stabilized, that is, working capital financing, and (2) financing capital expenditures to expand the current business, to create new ones, or simply for maintenance purposes. The two basic forms of financing for business are internal financing and external financing. The basic internal financing sources are the retained or undistributed profits from the business obtained in previous years and fresh capital injections by the owner(s) of these firms. External financing can be provided by financial institutions, suppliers and other types of creditors. Most of the SMEs, family businesses included, rely on internal financing and/or short term credit from suppliers and/or some specialized financial products. Only rarely do family firms recur to a direct loan from banks and other financial institutions to financing their needs (Harash, Al-tamimi & Alsaadi, 2014).

De Voe and Iyengar (2009) confirmed that all organized groups, including family businesses, face the fundamental problem of how to allocate resources fairly. As pointed out by Chrisman *et al*. (2013), resource acquisition, evaluation, and shedding are important for goal attainment in both family and non-family firms. However, the mix of resources and the approaches used to acquire, evaluate, and shed these resources are likely to vary considerably between family firms and non-family firms. Thus, according to Le Breton-Miller and Miller (2006), family businesses embrace a number of governance conditions that invite long-term investments and increase the resources available to invest.

The availability of resources is a crucial requirement for long-term investment in family businesses for realization of long-term goals. Some of the investments may include major new infrastructure expenditures and investing in reputation or enduring relationships with employees, clients, suppliers, or the community.

Omboga and Okibo (2016) argued that financial planning practice is an important and challenging issue in the small firms in Kenya. Thus, planning of financial resources, is an integral part of running small businesses as most of them fail due to liquidity problems to support their operations. Firms with sufficient cash confidently focus on business operations, constantly re-examining and modify its plans, and exert enormous energies to obtain and keep additional financing for purposes of increasing its value.

Cash management is the practice of planning and controlling cash flows into and out of the business, cash flows within the business, and cash balances held by a business at a point in time. Efficient cash management involves the determination of the most favourable cash to hold by considering the trade-off between the opportunity cost of holding too much cash and the trading cost of holding too little. Cash management is fundamental to every business that desires to meet up with its short-term financial obligations and consists of taking the necessary actions to maintain adequate levels of cash to meet operational and capital requirements as well as to obtain the maximum yield on short-term investments. Therefore, cash management assumes more significance than other current assets because cash is the most important asset that a firm holds. Cash, unlike fixed assets or inventories does not produce goods for resale, notwithstanding management's considerable time is devoted to managing cash (Akinyomi, 2014).

Cash management represents an important component of working capital management (Akinyomi, 2014). Lakew and Rao (2009) point out that working capital management involves managing the level and financing of the firm's investment in current assets, which includes cash, marketable securities, accounts receivable and inventory. It is a strategy focusing on maintaining efficient levels of both components of working capital,

current assets and current liabilities, in respect to each other. Hamza, Mutala and Antwi (2013), showed that good cash management can have a major impact on overall working capital management. It is objectively used to manage and determine the optimal level of cash required for the business operation and invested in marketable securities, which is suitable for the nature of the business operation cycle.

Deakins, Logan and Steel (2001) indicated that an important key to successful development and survival of small firms, family businesses included, is the role of financial management. It is therefore important to understand how changes in financial management practices occur. Dynamics of financial management practices and decision making are influenced by many factors, including both internal management issues and external environmental issues. Financial management practices in small firms are far from static; the owner-manager learns to alter behavior and change practice with experience.

Financial management practices play an important role and have long attracted the attention of researchers. Depending on different objectives, researchers emphasize different aspects of financial management practices (Asuquo, Effiong & Tieiseh, 2012).Financial management practices that likely affect business decisions and growth in family business, therefore, in this study, include financial literacy, financing, allocation of financial resources and cash management. Despite the increased attention paid on the study of family business sector, there is still little knowledge about the influence of financial management practices and how the family characteristics affect the growth of family businesses. Such occurrences have stimulated interest in the current study, to determine the influence of financial management practices and the effect of family characteristics on the growth of family businesses in Kenya.

1.2 Statement of the Problem

Financial management practices in the small business sector have long attracted the attention of researchers. Depending on different objectives, researchers emphasize different aspects of financial management practices (Asuquo *et al*., 2012). Family firms, just like any other form of business, are supposed to carry out financial management functions that will enable them, among other reasons, to be competitive, operate with minimal conflicts, allocate resources to the most useful projects or investments and make profits as well as realize growth for the many years to come. Whether or not, family firms carry out financial management practices to achieve growth in the long-run is still unknown. Family business failure, among other reasons, can also be attributed to, apart from lack of succession planning, failure in carrying out financial management practices in running their businesses.

There are plenty of reasons why families go into business. For some, entrepreneurship is something coincidental, accidental, and unintended, leading to financial success and consistent business growth years later. Others have started a business to create a challenge after retirement, to augment a meager family income, to avoid starvation and poverty, to support siblings, or for "meeting the needs." Some continue on the legacies of past generations by growing existing businesses. There are also individuals who craved for financial stability and turned to business as their way to achieve this goal (Osi, 2010).

Financial management is one of the several functional areas of management but it is the center to the success of any business. Inefficient financial management, combined with the uncertainty of the business environment often led business enterprises to serious problems. Careless financial management practices are the main cause of failure for business enterprises in most developing countries. Regardless of business led by owner or hired manager, if the financial decisions are wrong, profitability of the business will be adversely affected.

Consequently, a business organization's growth could also be affected because of inefficient financial management. Most family firms have often failed due to lack of knowledge of efficient financial management (Lakew & Rao, 2009).

In order to help family business owners and managers better understand family business issues relating to growth and profitability and to help them grow their businesses, more research should be conducted to determine the factors that are associated with financial management practices and business growth. Although many studies have been conducted on entrepreneurship and SMEs (Buang *et al.*, 2013), in Kenya and many other parts of developing world, the study on financial management practices on family businesses is still lacking (Wallace, 2010). Most studies done on family business performance, for example, Wallace (2010), Wee & Ibrahim (2012), Amran and Ahmed (2010),Buang *et al*.(2013) and Phillips (2012),discussed the importance of succession planning, but there are many other aspects of family businesses, specifically on financial management practices, that are yet to be given more attention.

Wamiori, Namusonge and Sakwa (2016), pointed out that financial access is an important determinant of the performance of enterprises as it provides them working capital, fosters greater firm innovation and dynamism, enhances entrepreneurship, promotes more efficient asset allocation and enhances the firm's ability to exploit growth opportunities. Firms with access to funding are able to build up inventories to avoid stocking out during crises, while the availability of credit increases the growth potential of the surviving firms during periods of macroeconomic instability. Access to external resources allows for flexibility in resource allocation and reduces the impact of cash flow problems on firm activity. Whether or not family firms are able to access external finances and be able to allocate these financial resources is still unknown.

Lakew and Rao (2009) showed that lack of empirical evidence from less developed economies and the lack of examination of the influence of financial management

practices and financial characteristic on growth and profitability of family businesses are major gaps in the knowledge of financial management. Therefore, it is difficult to convince business practitioners of the need for changes in practices until evidence of the influence of financial management practice. Based on previous research findings and recognition of these gaps, a study on the influence of financial management practices on the growth of family businesses is justified.

Waweru and Ngugi (2014) pointed out that the influence of financial management practices on performance is one significant topic as evidenced by an increasing number of publications and studies on the topic. Locally, studies on financial management practices that have been done include: Wanyungu, (2001) who did a research financial management practices of micro and small enterprises in Kenya, A case of Kibera, while Kagone and Nanusonge (2014), looked at financing as one of the factors that influence the growth of women oriented micro-enterprises, considered to be family–based. Thus, few studies done locally have focused on financial management practices on small business but not exclusively on family businesses in Kenya. It is in this light that the current study seeks to fill the existing research gap by studying the influence of financial management practices on the growth of family businesses in Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of the study was to determine the influence of financial management practices on the growth of family businesses in Kenya.

1.3.2 Specific Objectives

The specific objectives which guided the study were:

1. To determine the influence of financial literacy on the growth of family businesses in Kenya.

2. To analyze the influence of financing on the growth of family businesses in Kenya.
3. To evaluate the influence of allocation of financial resources on the growth of family businesses in Kenya.
4. To establish the influence of cash management on the growth of family businesses in Kenya.
5. To determine the moderating effect of family characteristics on the financial management practices and growth of family businesses in Kenya.

1.4 Research Questions

The following research questions were introduced:

1. What is the influence of financial literacy on the growth of family businesses in Kenya?
2. What is the influence of financing on the growth of family businesses in Kenya?
3. What is the influence of allocation of financial resources on the growth of family businesses in Kenya?
4. What is the influence of cash management on the growth of family businesses in Kenya?
5. What is the moderating effect of family characteristics on financial management practices and growth of family businesses in Kenya?

1.5 Research Hypotheses

The study was guided by the following null hypotheses:

H_{01}: There is no significant influence of financial literacy on the growth of family businesses in Kenya.

H_{02}: There is no significant influence of financing on the growth of family businesses in Kenya.

H_{03}: There is no significant influence of allocation of financial resources on the growth of family businesses in Kenya.

H_{04}: There is no significant influence of cash management on the growth of family businesses in Kenya.

H_{05}: There is no significant moderating effect of family characteristics onfinancial management practices and growth of family businesses in Kenya.

1.6 Significance of the Study

Family businesses are some of the most common forms of businesses in the world. Their role in economies of nations including both developed and developing countries is undeniable as many of the existing companies have started as a family business at the beginning (Mohamadi, 2012). There is a growing interest in family business research, and one reason for this development is the often reported notion that the majority of businesses may be classified as family businesses (Sten, 2007) and are small in nature (Danes, Loy & Stafford, 2005). The trend towards family business research and its importance is evidently global, as it has been recognized as the fastest growing discipline in business research (Prior, 2012).

Wallace (2010), points out that family businesses are fundamentally the keystone of, and more or less sustain our economy and society, their pervasiveness often goes unnoticed. Because family businesses are the majority of all businesses in the world and that they have been understudied relative to other businesses, it is clear that there is a prevailing need for more research to be conducted on this important topic. Based on the number of published articles, the findings and support of many contributors, and the number of peer-reviewed scholarly journals, the amount of research conducted on family businesses is significantly increasing.

The great majority of family businesses are small in nature (Danes *et al*., 2005).The importance of small and medium-sized enterprises in creating jobs and economic wealth is globally recognized. Among SMEs, family businesses are fast becoming the dominant form of business enterprise in both developed and developing countries. In developing countries in particular, the social and economic importance of family businesses can hardly be over-stated. More importantly, however, is the fact that their influence can be expected to increase substantially in the future (Phillips, 2012).

Family firms are a promising area of research (Bennedsen, Perez-Gonzalez & Wolfenzon, 2010). Wallace (2010) points out that the benefits of family business research can be far-reaching. Not only can it contribute to the existing literature and provide information for further scholarly research, it also has the potential to give family business owners, managers and consultants information that can help them in their business endeavours. There are many family business owners who are currently struggling in terms of perceiving their business to be successful and maintaining business growth and profitability. This study will thus contribute in raising the awareness and attract the attention that it deserves.

Comprehensive reviews on scholarly publications related to family businesses reveal that the most frequent researched topics include variables like interpersonal family

dynamics, succession, consulting to family firms, gender and ethnicity issues, legal and fiscal issues, estate issues, and business performance and growth (Wee & Ibrahim, 2012). Family firms are widespread around the world and are also correlated with significantly more variation than other firms in measures of economic output (Bennedsen *et al*., 2010).

The purpose of this study, therefore, was to determine the influence of financial management practices on the growth of family businesses in Kenya, with specific interest in Mombasa County. By accomplishing this purpose, it is hoped that this study will provide a financial perspective from which to understand family businesses and also develop an avenue for the development of appropriate policies relating to profitability and growth of family businesses. It will also provide a platform for scholars to build on further research on family businesses in other areas of financial management.

1.7 Scope of the Study

Family businesses comprise the predominant form of enterprise around the world, yet, until now, few structured information is available on the unique and complex issues they face. This may be attributed to the fact that only in the past 20 years, researchers have started to study and understand the core fundamental idea that family businesses differ critically from other businesses (Wee & Ibrahim, 2012). Family businesses, particularly the small-to-medium sized, are the grassroots of the global economy, and are clearly the majority of all the businesses in the world, as stated by many researchers, and are as old as civilization. The estimates of the percentage of family businesses relative to total businesses in the United States range anywhere from 42% to 95% (Wallace, 2010) and have dominated the economic landscape around the world (Liu *et al*., (2010), Wee& Ibrahim (2012), and Buang *et al*. (2013)).

Previous studies, for example, by Wee and Ibrahim (2012), Wallace (2010), Amran and Ahmed (2010), and Buang *et al*. (2013) have mostly concentrated on issues of succession and performance of family businesses. This study focused on determining the

influence of financial management practices on the growth of family businesses in Mombasa County. Therefore, the study undertaken in the region was a good representation of most businesses run by families in the country. The study was relevant in the aspects of financial management practices and their influence on the growth of family businesses in Kenya.

1.8 Limitation of the Study

The researcher encountered a number of challenges when undertaking the study. However, the limitations did not have a significant interference with the outcome of the study. However, the use of self-administered questionnaire was a limiting factor in terms of respondents getting the time and understanding the questions for which answers were being sought. The challenge was however reduced as the research assistants were able to make follow-ups and clarify the questions that respondents were not able to comprehend or answer. This greatly reduced the number of unfilled sections in the questionnaires and increased the response rate. The research concentrated on only few aspects of financial management practices namely; financial literacy, financing, allocation of financial resources and cash management. There are other aspects of financial management practices which were not explored such as working capital management, debt management, Investment decision, etc. that may have an influence on growth of family businesses.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on the influence of financial management practices on the growth of family businesses. The discussion under this chapter include theoretical framework, conceptual framework, review of financial management variables that influence the growth of family businesses, research gap, critique of existing literature and chapter summary.

2.2 Theoretical Framework

An important key to successful development and survival of small family firms is the role of financial management (Turyahebwa, Sunday & Ssekajugo, 2013). It is important to understand how changes in financial management practices in small (family) firms occur. The dynamics of financial management process and decision making are influenced by many factors, including both internal management issues and external environmental issues. The limited literature on financial management and family businesses could be considered to contain less than favourable assumptions about financial management practices and these firms (Deakins *et al*., 2001).

There is currently no framework or a theory of the family business to help researchers design adequate empirical research and to properly interpret the results of their investigations. Until recently, this developing academic field lacked depth in terms of theoretical foundations of the "theory of the family firm". The basis for the firm governance discussion in science was until recently almost only constituted by the principal-agent theory. Moreover, different theories are provided to lead theoretical perspectives and make progress in the construction of a framework in which empirical research can be properly interpreted for better understanding the features, outcomes and behaviours of the family firms. Lately, researchers have begun to rely more and more on

other theoretical perspectives, such as the Agency theory, Capital Structure theories and Resource Based View theories (Molina & Rutterford, 2011).

2.2.1 Information Asymmetry Theory

Literature on asymmetry of information indicates that borrowers have an informational advantage over lenders since borrowers have more information about the investment projects they want to undertake leading to moral hazard and adverse selection. In the case where the funds provider is the firm, it will have more information about the firm than new equity holders; thus new equity holders will expect a higher rate of return on their investments, implying that it will cost the firm more to issue fresh equity shares than using internal funds. High information asymmetry therefore translates to a high cost of capital (Ayuma, Namusonge & Iravo, 2014).

Hancock (2009) points out that a different approach to the Modigliani & Miller (1958) proposition was highlighted by Ross (1977). Capital structure adopted by a firm's management sends a signal to the market that influences the valuation of the firm. This was as a result of discarding the important assumption underlying Modigliani and Miller's (1958) irrelevancy theory that the market possesses full information about the activities of the firm. The basic proposition is that if management increases debt levels, the market would assume that the managers knew more about the firm's ability to make future repayments than the market. Thus, higher debt indicates higher future returns. He continues to show that this position was disputed by Fama and French (1988) who found that firms with lower debt were more profitable.

Lusardi and Mitchell (2014) confirmed that the theoretical literature on financial literacy has made strides in recent years by endogenizing the process of financial knowledge acquisition, generating predictions that can be tested empirically, and offering a coherent way to evaluate policy options. Moreover, these models offer insights into how policymakers might enhance welfare by enhancing young workers' endowment of financial knowledge.

In their seminal paper, Steijvers and Mervi (2010) showed that Information asymmetry is prevalent if a firm knows the expected risk and return of their project, while the bank only knows the average expected return and risk of an average project in the economy. The presence of asymmetric information may give rise to credit rationing due to adverse selection and moral hazard problems. Small family firms are especially vulnerable to information asymmetries since they are not followed by analysts and lack any audited financial statements. Moreover, they are not always willing to release any information to financial institutions since it is a time-consuming, costly occupation. Consequently, small private family firms may cope with difficulties in obtaining external debt finance.

Traditionally, firms attempt to reduce information asymmetries by providing past track records, producing business plans, and involving financiers in strategic decision making processes. Financiers, on the other hand, use observation and monitoring techniques to satisfy themselves they have accurate and reliable information. Banks or financiers may also insist on collateral and covenants to secure their investments beyond what they can reasonably acquire as information. Start-up enterprises are able to provide little, if any, of these art facts to alleviate the problem (Hancock, 2009).

Frank and Goyal (2005) showed that the pecking order theory stems from Myers (1984) who was influenced by the earlier institutional literature including the book by Donaldson (1961). They showed Myers (1984) argument that adverse selection implied that retained earnings are better than debt and debt is better than equity. The ranking was motivated with reference to the Myers and Majluf's (1984) adverse selection model. The ordering, however, stems from a variety of sources including agency conflicts and taxes.

2.2.2 Pecking Order Theory

Wamiori *et al.* (2016) pointed out that pecking order theory discussed by Meyers (1984), Myers and Majluf (1984) and Fama and French (2002), describes a firm's debt position as the accumulated outcome of past investment and capital decisions. Managers will prefer financing new investments by internal sources (that is, retained earnings) first, if

this source is not enough then managers seeks for external sources from debt as second and equity as last. Thus, according to the pecking order theory firms that are profitable and, therefore, generate high earnings to be retained are expected to use less debt in their capital structure than those do not generate high earnings, since they are able to finance their investment opportunities with retained earnings. Pecking Order theory states that companies prioritize their sources of financing from internal financing to equity. Therefore internal financing is used first then when that is depleted, then debt is issued and when it is no longer sensible to issue any more debt, equity is issued.

Hancock (2009) elaborated that the pecking order theory proposes that there is uneven information between managers and investors. This provides another means of overcoming one of the limitations of the original Modigliani and Miller (1958) capital structure view. This asymmetry leads to firms preferring internal funds over external funds; however, when internal funds are no longer available, debt is preferable to equity due to the riskiness of equity. Internal funds hold no adverse selection risk. The cost is internal and completely controlled by the entrepreneur. Debt is a higher risk, there is the need to repay it, but the costs are external and therefore are considered to be moderate, or incur minor adverse selection risk. Equity comes with a higher adverse selection risk and information asymmetries between the investor and firm are significant. Therefore, the cost of such finance is much higher with the investor factoring in the higher risk thus looking for a higher return. Therefore, equity is only sourced after the ability to borrow funds is exhausted.

The approach of the pecking order stated that firms pursue a hierarchical sequence in their selection of the financing sources, in order to reduce costs of finance. Thus, firms rely on the internal sources firstly, then the debt (whether the issuance of debt instruments or loans) when internal sources are insufficient, and they leave the finance by the issuance of equity as a later option. This implies that firms with a high level of profits have a lower leverage ratio due to being capable to finance investment needs by internal sources, and external sources are not necessary. However, when the business is unprofitable, their cash flows are not enough to fulfil investments needs, and they tend

to use debt within the alternatives of external financing, as it is closest to the top of the hierarchy. In this regard, the need of external borrowing will decrease with an increase in the profitability of the company although some studies documented that the relation between profitability and debt is negative (Dwaikat, Queiri & Aziz, 2014).

Although pecking order theory was developed for large, quoted companies, it is equally applicable to small or family firms. Firms tend to use cash credit as a first choice for financing their working capital needs. However, the excessive reliance on the banking system for working capital finance exerts some pressure on the banks, and a significant portion of their available resources are first channeled to the large firms. It is also noted that the long-term sources of funds for working capital appear to be dominant in many industries and that cash credit is the next major source for financing working capital. Another important dominant source for funding the working capital requirement is trade credit. Trade credit is usually called a spontaneous source of finance and is normally available as part of the trade terms. Most firms with limited access to the long-term capital markets tend to rely more heavily on owner financing, trade credit and short-term bank loans to finance their operations. Managers thus, prefer internal funds because this form of funding ensures that they can maintain control over operations and assets. If debt financing becomes necessary, the managers are assumed to favour short-term debt because this source does not tend to involve any demand for collateral security. There is also increased dependence on short-term financing for the less profitable firms. The less profitable a firm is, and therefore the less self-sufficient it is through the reinvestment of profits, the more likely that it will need to depend upon short-term debt financing for its assets and activities (Padachi, Howoth & Narasimhan, 2012).

Vilaseca and Aznarez (2010) developed a theoretical framework that clarifies why family businesses show a low debt level when compared to non-family businesses. It can be added to the accepted view of capital structure theory and provides a new dimension for the evaluation of family business performance. They defined this dimension as “family capital” and it reflects the unity and harmony that prevails among family members. This factor is closely linked to financial leverage. In the capital

structure of a business there is a decision to be made as to how much of the operations volume should be financed with debt and how much with own resources. In both alternatives, bearing in mind that each of the suppliers of these resources (the bank and the shareholders, respectively) will demand an appropriate return. The resulting capital cost will then be the weighted average cost of capital. The actions that the family business undertakes as a result of the decision making process of its management have an impact on the "family capital" level. In particular, the capital structure decision-making process reveals the existence of issues that are in conflict regarding the effects on the family capital level compared to the business performance (economic dimension). Their proposal concerning the concept of family business performance combines both series of factors that are intrinsic to the shareholder value. On the one hand, the business performance (represented by the economic dimension) and on the other hand, the family capital (represented by performance achieved by the family dimension).

Pecking order theory has been supported by a number of other studies in various environment. However, there is no evidence at all that there is a pecking order regarding debt and equity. There is some evidence that start-up entrepreneurs skip the search for debt altogether and move straight to equity finance. This could be for a number of reasons; chiefly amongst them is that there is a belief that banks simply do not lend money to start-ups. When they do, they actually lend on the basis of a steady income independently of the start-up business and adequate security in the form of collateral (invariably real estate). Because of this, any debt that an entrepreneur is able to secure is personal. This has interesting ramifications for this theory. In the case where an entrepreneur is able to secure a business loan, what appears to be occurring is that loans are provided to the entrepreneur. Then, that capital is injected into the business. Thus, it is owner's equity rather than external equity. Therefore, the concept of using internal funds then debt is not relevant in a start-up situation (Hancock, 2009).

2.2.3 Trade-off Theory

Hancock (2009) explains that trade-off theory first proposed by Modigliani and Miller in 1958 essentially predicts that firms moved toward a point of ideal debt to equity ratio. This ratio is independent of the market value of the firm and lifecycle stage. The concept is the starting point for many other theories regarding how firms arrive at their capital structure. The major variation that is evident when accounting for the assumptions underpinning Modigliani and Miller's original theory is that of taxation regulations. Modigliani and Miller's (1958) theory can be used to describe how firms utilize taxation to manipulate profitability to develop an optimum debt level. However, the theory has been both criticized and supported. Criticisms have predominately been from the perspective that the theory is based on assumed perfect knowledge in a perfect market and in many cases, firm behaviour tends not to follow the predictions of the theory. The theory predicts that highly profitable firms will have higher debt levels in order to maximize taxation benefits and increase the availability of capital. However, many observations of firm behaviour show highly profitable firms with comparatively low debt levels. There has been some recent support for the theory that firms do indeed attempt to establish an ideal debt to equity ratio and then move toward achieving that goal.

The Trade-off theory gathers the pros and cons of the usage of debt. On one side, the usage of debt in capital structure gives a reduction of tax burdens. An increase in the level of debt comes with the risk of bankruptcy, since the likelihood of bankruptcy rises with the degree of the company's indebtedness at a lower level of leverage, and the likelihood of the firm's bankruptcy may not be serious, but at a higher level of indebtedness, agency problems and costs of bankruptcy become serious, and costs of bankruptcy are more than the tax benefits of debt. Therefore, there is an optimal leverage ratio, which is the point where the cost of failure and the tax benefits of debt are equal. The trade-off theory proposes that a firm selects its optimal capital structure through balancing the benefit and cost of using debt (Dwaikat *et al*., 2014).

Frank and Goyal (2005), showed that the seminal paper by Myers (1984) considered a contest between two perspectives on corporate debt. Myers calls the hypothesis that firms balance tax savings from debt against deadweight bankruptcy costs the trade-off theory. They affirm that firms first look to retained earnings, then to debt, and only in extreme circumstances to equity for financing the pecking order theory. In their review, they considered the literature and evidence that has developed out of Myers's contest that there are at least two key implications of these theories. The key implication of the trade-off theory is that leverage exhibits target adjustment so that deviations from the target are gradually eliminated. The key prediction of the pecking order theory is the strict order into financing. Myers presented these two theories as broad organizing frameworks that can potentially help account for many facts. But it is also possible to view both theories as part of a much broader set of factors that determine the capital structure of a firm.

2.2.4 Cash Management Theory

Pandey (2010), as cited by Abioro (2013), pointed out that there is need for proper management of cash, since it is the most important current asset for the operation of any business. The firm should keep sufficient cash, neither more or less. Cash shortage will disrupt the firms operations, while excessive cash will simply remain idle, without contributing anything towards the firm's profitability. He suggested the following as facets of cash management; cash planning, managing cash flows, optimum cash levels, investing surplus cash.

Abioro (2013), explained the treatment of cash management problem by Baumol in 1952. Baumol treated cash management problem as an inventory management problem where he applied techniques developed for inventory optimization to the problem of covering transactions demand for cash. Having optimal cash balance basically involves a trade-off between the opportunity costs of holding too much cash and the transaction costs of holding too little cash. The Baumol model can be used to determine the target cash balance that a firm should hold at any given time. The optimal cash balance is

found where the opportunity costs equal the trading costs. Although the model is simple to use and understand, it might be difficult to accurately predict cash required over future periods as the model assumes that firm faces a constant demand for cash. The model provides no allowance for a buffer of cash and that if company run out of cash, it could be expensive and damaging to the business and that the major limitation of the Baumol model is that it does not allow the cash flows to fluctuate. In practice, firms does not use their cash balances uniformly neither are they able to predict daily cash inflow and outflows.

Baumol model of cash management helps in determining a firm's optimum cash balance under certainty. It is extensively used and highly useful for the purpose of cash management. As per the model, cash and inventory management problems are one and the same. William Baumol developed a model which is usually used in Inventory and cash management. Baumol model of cash management trades off between opportunity cost or carrying cost and the transaction cost. As such firm attempts to minimize the sum of the holding cash and the cost of converting marketable securities to cash. The Baumol model of cash management theory relies on the tradeoff between the liquidity provided by holding money and the interest foregone by holding one's assets in the form of non-interest bearing money. The key variables of the demand for money are then the nominal interest rate, the level of real income which corresponds to the amount of desired transactions and to a fixed cost of transferring one's wealth between liquid money and interest bearing assets (Mohamed, 2013).

Pandey (2010), as cited in Abioro (2013), explained that Miller Orr model overcame the shorting comings of Baumol model as it allowed for daily cash flow fluctuation and assumed that net cash flow are normally distributed .Unlike the Baumol Model, this model allowed for uncertainty cash flows and safety stocks. “The Miller-Orr model imposes upper and lower limits which trigger buy/sell actions in order to bring cash balances back to an optimal return point”. In doing this, it constrains the upward and downward movements of cash to within acceptable limits. The model allows the company to set the lower control limit while the model determines the higher control

limit and the average cash balance. Thus, organizations will either buy or sell securities for cash to return its cash balance to a normal return point. When the cash balance reaches the upper limit, an organization will buy securities in order to lower the cash balance to the return point. Likewise also, when the cash balance reaches the lower limit, an organization will sell securities to have the cash balance back at the return point. The approach of Miller and Orr in 1966 was to assume that the underlying problem facing the manager is to keep enough cash on hand to meet daily transactions demand, while minimizing the opportunity cost of not holding a return yielding asset. Miller and Orr focused their model on maintaining two boundaries; the upper and lower boundaries. If the upper boundary is crossed, it will trigger a transfer out of cash into an interest bearing asset and if the lower boundary is crossed, it will trigger a transfer into the cash account.

2.3 Conceptual Framework

The conceptual framework of this study looks at the moderation effect of family characteristics as moderating variable, on financial management practices as independent variables and growth of family businesses as the dependent variable. The independent variables include financial literacy, financing, allocation of financial resources and cash management.

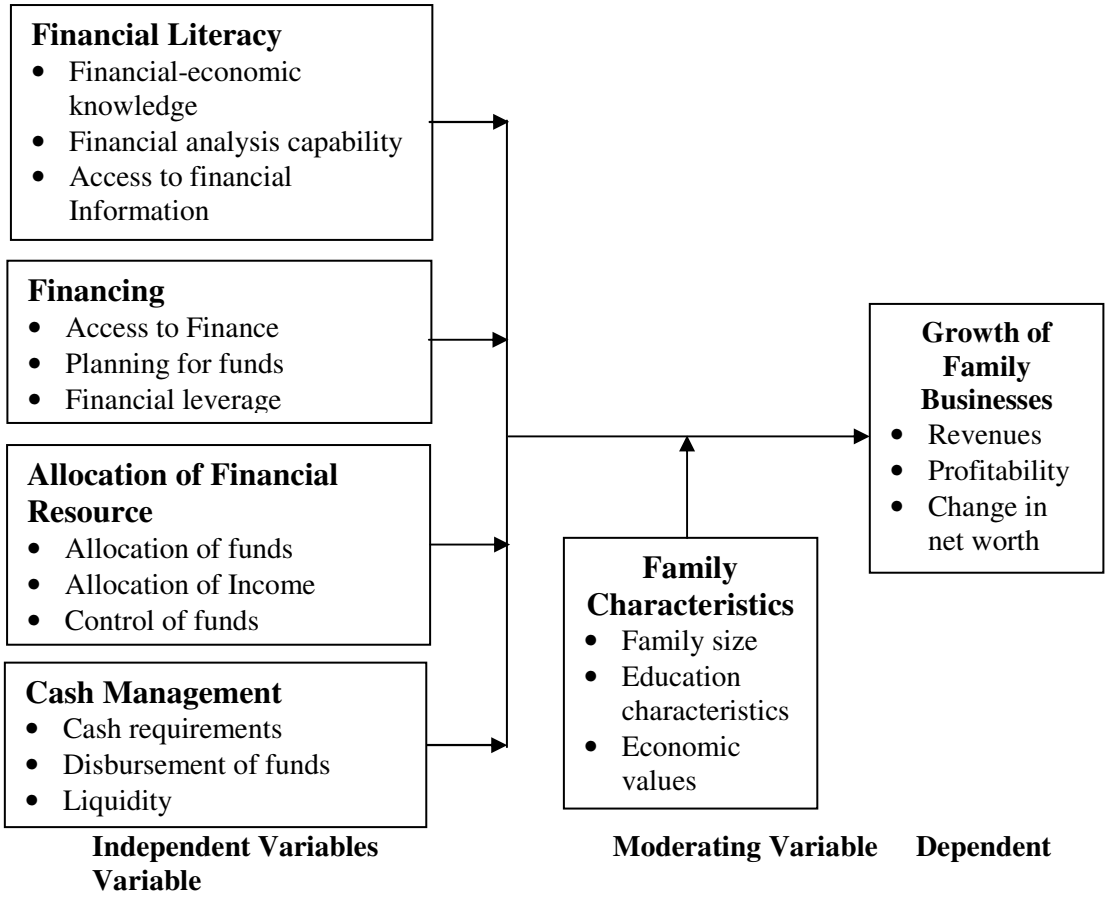

Figure 2.1: Conceptual Framework

2.4 Review of Variables

Financial management practices play an important role and have long attracted the attention of researchers. Depending on different objectives, researchers emphasize different aspects of financial management practices (Asuquo *et al.*, 2012). Financial management practices that are likely to affect business decisions and influence growth of family businesses, therefore, in this study, include financial literacy, financing, allocation of financial resources and cash management. The following is review of

factors of financial management practices that influence growth of family businesses in Kenya.

2.4.1 Financial Literacy

Aroni, Namusonge and Sakwa (2014) argued that, in making decisions to invest, individuals' behaviors will be driven by personal frames, including availability of financial information to guide their investment decision. The availability of financial information has been postulated as one of the variables that could influence investor behavior while making investment decisions. Analysis of the available financial information provides a technical basis to evaluate the past and projected performance of a firm. In this respect various criteria can be used, including financial ratios which can then be compared across the industry to support making an informed investment decision

Awais, Laber, Rasheed and Khursheed (2016) pointed out that financial literacy can be taken as mathematical capability and the know-how of financial interpretation. They explain that financial literacy is high for people having age of between 50 and 60 years, finance and accounting professionals, business and owners of firms, and university or college graduates. Literacy of financial education can also described as the capability of individuals to go for financial decisions by keeping in view their own best short-term and long-term interests. It is evident that financial experience leads towards financial knowledge, creating awareness for self-education or make the financial literacy programs more significant. Hence, literacy can also be enhanced by the people who have enough resources and utilize these resources to obtain financial information for implying better outcomes from investment decisions. Wealthier households spend more money to get access to financial information.

While there is a substantial theoretical and empirical body of work on the economics of education, far less attention has been devoted to the question of how people acquire and deploy financial literacy. In the last few years, however, a few authors have begun to

explore the decision to acquire financial literacy and the links between financial knowledge, saving, and investment behavior. Despite the fact that some people will rationally choose to invest little or nothing in financial knowledge, it can still be socially optimal to raise financial knowledge for everyone early in life, for instance by mandating financial education in high school. This is because even if the least educated never invest again and let their knowledge endowment depreciate, they will still earn higher returns on their saving, which generates a substantial welfare boost (Lusardi & Mitchell, 2014).

Njoroge and Ondigo (2013) showed that financial literacy enables one to make informed decisions as far as money matters are concerned. Thus, one can borrow, save and invest wisely. It has attracted increasing attention in both the developed and developing world due to its role in financial decision. Most studies found that financial literacy is crucial in stimulating the SME sectors. Financial literate firms may save more, and better manage risk, by purchasing insurance contracts. Their findings proved that financial literacy has a positive effect on firms' performance. Basic education enhances the overall quality of the entrepreneur by providing the basic numeric and financial literacy skills. A manager who has a higher education degree or even a postgraduate degree seems to stimulate the growth of the firm, thus having an impact on both survival and growth.

There is a difference between financial literacy discussed in the business world and the way it is differently discussed in a pure consumer setting. In the latter, the aim is to highlight and remedy illiteracy, setting out an implied curriculum while in the former, the aim is to distinguish between different levels of literacy, setting out criteria for eligibility. The consumer approach to financial literacy seeks inclusion (for example, turning individuals into confident and reliable consumers of financial services) while the business approach seeks exclusion (for example, avoiding majorities of financially 'illiterate' managers running businesses). Perhaps uniquely among the many target groups at which financial education is aimed, entrepreneurs sit astride this distinction (Association of Chartered Certified Accountants Report, 2014).

Njoroge and Ondigo (2013) assert that majority of studies have proved that financial literacy has a positive effect on entrepreneurship success. However, there are also cases of illiterate persons running successful enterprises. In Kenya where vast majority of SMEs are in informal sector, many Jua Kali and farming entrepreneurs are financially illiterate and yet they run very successful SMEs. More research is needed to find out whether the financial illiterate entrepreneurs would be better if they had financial literacy.

Many firms in Africa operate in an information-poor environment due to lack of adequate business support services and the poor information technological infrastructures. Access to information has however not been given the same attention as other constraints to growth of businesses like access to finance, markets, technology or training. The main sources of business information for businesses may include information from business associates, government officials, broadcast media, libraries, newspapers/periodicals/magazines, government publications, trade and industry associations, and electronic sources. Entrepreneurs rely on diverse sources of information. The sources vary depending on the nature of the problem, the incentives accruing, and the constraints involved in the running and managing business operations. Limited access to markets remains a severe constraint to business growth and competitiveness in Kenya owing to a shrinking domestic market due to globalization. Limited access to market information makes businesses less aware of opportunities in the financial market. SMEs, family businesses included, also face difficulties in accessing financial markets due to limited financial information, poor financial capability and poor financial research leading to a discrepancy between the supply and demand of financial products (Bunyasi, Bwisa & Namusonge, 2014).

2.4.2 Financing

Family businesses have played important role in most developed economies. They have proved to be the most viable engines of economic growth and development. Due to their size and scope of operations, family businesses require relatively small capital

investment to start, thereby offering a relatively high labour-to-capital ratio. They also demand low technology and managerial skills, which are readily available within the society (Alfred & Xiao, 2013).

Asuquo *et al*. (2012) showed that financial management is an integral part of overall management. It is concerned with the duties of the financial managers in the business firm and how they deal with procurement of funds and their effective utilization in the business. Financial Management is mainly concerned with the effective funds management in the business. Thus, financial management practices in the family business sector have long attracted the attention of researchers. Depending on different objectives, researchers emphasize different aspects of financial management practices.

Taiwo and Falohun (2016) proved that small and medium enterprises, family businesses included, constitute the driving force of such industrial growth and development and this is due to their great potentials in ensuring diversification and expansion of industrial production as well as the attainment of the basic objectives of development. Given the great potentials of small family businesses to bring about social and economic development, it is of no surprise that the performance and financing small family businesses is of huge concern especially to the developing world. Small family businesses in both developing and developed countries play important roles in the process of industrialization and economic growth, by significantly contributing to employment generation, income generation and catalyzing development in urban and rural areas.

An important factor to the growth and survival of a business is obtaining external financing. Their study provided models for efficient financial management practices. The models can then be used to provide a trajectory for improving business performance. Thus financial management practices, which have been largely ignored among small businesses since majority of these businesses, are individually owned or family owned, and may be advanced as a standing solution to their performance problems (Turyahebwa *et al*., 2013).

Alfred and Xaio (2013) point out that studies conducted on some selected family businesses revealed that there is no clear distinction between family businesses and non-family businesses with regards to the sourcing of finance for their businesses. Hence, there is no special financial package that exists solely for family businesses. Small (family) businesses often cite inadequate finance, coupled with high interest rate charged by the traditional banks when accessing loans, as the major constrains on the day-to-day running of their businesses. The main sources of capital for small and growing enterprises are retained earnings, and investments from family and friends. Majority of African entrepreneurs use family loans to finance their business, whilst others used private equity. However, once these sources are fully exhausted, entrepreneurs face the challenge of tapping other sources of capital such as bank loans. Bank lending policies favour more well-established firms compared to new ones, given their lack of historical financial and bank records.

Mohamadi (2012) asserts that some of the listed sources of financing in different entrepreneurial finance books cause involvement of the external financiers. They include angel investors, venture capitalist firms and public offering. There are in contrast some internal sources of financing such as unpaid dividends which do not lead to involvement of outside investors. Debt, including asset based lending and other forms of the commercial bank lending usually does not lead to loss of control of the business. Equity, on the other hand, if financed by an external source causes loss some of the control over the firm because the financiers may want to make sure they have the best compensation by the best possible management.

Phillips (2012) explained that majority of non-family businesses use share capital, retained profits and bank loans, although few non-family businesses use bank overdrafts as methods of financing. Conversely the family businesses use methods of venture capital and retained profits rather than loan capital and share capital. Some of the family businesses borrow intercompany loans as a method of sustaining this business. However, very few of the family businesses borrow loans to assist their businesses. The majority of owner-managers prefer to keep their firms small. For firms that grow, the pace may

be faster for non-family than family firms, partly a consequence of the sources from which growth is financed; with family firms preferring internal sources and avoiding external long-term debt and equity.

Financing has remained one of the key managerial problems that keep confronting business enterprises today. For the family businesses, the accessibility to funds and the cost of raising them have remained issues limiting the working capital requirements, leading to premature collapse of many firms. Getting access to finance has continued to be the major leading problem. Most firms started their businesses with their own capital with sometimes minimal help from relatives and friends. The banks normally require collateral such as land, house, or automobiles to guarantee loans that are given beyond the reach of most entrepreneurs. This collateral demands stems from the perception of high risk associated with small businesses and the view that most of them are manned by one person or family owned business which have no future of continued operation once the owner dies (Alfred & Xaio, 2013).

Alfred and Xaio (2013) further explain that the difficulties that family business encounter when trying to access finance can be due to an incomplete range of financial products and services, regulatory rigidities or gaps in the financial legal framework, lack of information on both the bank's and the firm's side. Banks may avoid providing financing to certain types of businesses, in particular, startups and very young firms that typically lack sufficient collateral, or firms whose activities offer the possibilities of high returns but at a substantial risk of loss.

2.4.3 Allocation of Financial Resources

Many family businesses are likely to include non-economic considerations as a major component in their set of goals and constraints. Family firms are likely to have important non-economic goals or constraints such as maintaining family harmony or job creation for family members. Family members and generational outlook can augment or impede the development of a sustainable competitive advantage. Family firms thus have greater

non-economic proclivities than other businesses, and will not alter the relationships between the resources accumulated and controlled by a company and its economic performance (Chrisman *et al*., 2013).

Several studies have empirically confirmed the preference for allocating resources according to equity over equality within the economic domain, especially when money is being distributed. When the outcome for the distribution of the resource to be allocated is unrelated to individual inputs, people prefer to distribute monetary resources equally. This is not surprising since without relevant differences in contribution, an equal allocation of resources is most consistent with an equity principle (that is, all individuals contributed the same amount in terms of relevant inputs). Also, when group goals are focused on something other than economic productivity or performance, preferences for equality emerge as dominant. Within the economic domain, socio-emotional or group harmony may be important goals that are more effectively accomplished by allocating resources equally (De Voe & Iyengar, 2009).

Dyer (2006) argued that families may bring with them significant physical and financial assets that can be used by the firm. Family firms with "survivability capital," which represents the pooled financial resources of the family, can provide the firm with a competitive advantage compared to those firms without access to such resources. "Survivability capital" can help sustain the business during poor economic times or, for example, after an unsuccessful extension or new market venture. This safety net is less likely to occur in non-family firms due to the lack of loyalty, strong ties, or long-term commitments on the part of employees. Not only do families use their financial resources to protect their firms against business downturns, but they may also turn to extended family to generate capital to launch new ventures. This pooling of capital by families has been particularly successful in fostering the proliferation and growth of Chinese family businesses.

Family members can use their personal assets to strengthen the firm. However, families are also known for taking assets out of the businesses they own, thereby undermining the firm's stability. Families are much more likely to draw on firm resources to meet family needs than they are to use family resources for the benefit of the firm. Therefore, family demands on firm resources may put the firm at risk. Intermingling of business and family funds also makes accountability difficult, making opportunism on the part of the family members more likely. Thus, families can have a direct effect on a firm by either providing or expropriating resources (Dyer, 2006). Cash is both a fundamental resource and the means by which the entity acquires other resources. To manage cash is to manage the entity's ability to purchase assets, service debt, pay employees, and control operations. Thus, effective cash management directly correlates with the entity's ability to realize its mission, goals, and objectives (Muthama, Muturi & Abuga, 2016).

Eddleston, Kellermanns and Sarathi (2008) argued that resource allocation poses unique challenges in family firms. Because family firms often make tradeoffs between economic and non-economic goals, how resources are evaluated, pursued, built, leveraged and deployed often varies. Family firms must be able to identify and build resources that not only exploit their family ties but also are pertinent in day-to-day entrepreneurial landscape. Thus, family ownership profoundly affects how resources are valued in family firms. While family members control the firm's assets and decision-making, they also tend to be overly concerned with wealth preservation, thereby inhibiting their firm's investment in resources and growth strategies. This interaction between the family and the business may therefore affect how resources are managed and deployed or invested in family firms.

Le Breton-Miller and Miller (2006), point out that investments may include those in knowledge capital, corporate culture, exceptional infrastructure and business models as well as win–win relationships with value chain partners. Certain types of family businesses are especially apt to develop distinctive core competencies. They embrace a number of governance and leadership conditions that invite long-term investments and increase the resources available to invest. Their investments are especially likely to take

the form of generously funding a substantive mission and its central competencies, fostering the talent to create those competencies, and building close relationships with outside stakeholders that access resources and allow a firm to focus on what it does best. Such investments create competitive asymmetries in that they are difficult to emulate for firms with different governance structures given the different incentives and conditions associated with those structures.

Long-term investments are actual expenditures and resource allocations are intended to realize the long-term goals that have similar time horizons and anticipated payback periods. They may include research and development projects, major new infrastructure expenditures, and investing in reputation or enduring relationships with employees, clients, suppliers, or the community. They also point out that another crucial requirement for long-term investment is the availability of resources. Evidence has begun to emerge that because of their unusually low free-rider agency costs, some family businesses are in an ideal position to generate such resources. Thus, family firms not only invest more of their resources for the long run, they also may have more resources to invest (Le Breton-Miller & Miller, 2006).

2.4.4 Cash Management

The success of enterprises largely depends on a number of factors including sound cash management practices. The essence of cash management is to ensure positive cash flow for smooth business operation. Documents that the underlying objective of cash management is having enough cash available as and when it is needed, and that sound cash management involves better timing of expenditure decisions, earlier collection and banking of revenue, and more accurate forecasts of cash flows. This helps minimize the cost of any borrowing that is necessary and facilitates investing surplus funds to achieve the best return overall (Muthama *et al*., 2016).

The success of any business venture is predicated on how the management has planned and controlled its cash flows. Cash shortage will disrupts the firm's smooth operation and can even lead to insolvency. Excessive cash will tie down unnecessarily long-term capital leading to low returns on capital employed. Thus, cash management assumes more significance than other current assets because cash is the most important asset that a firm holds. Cash management is thus essential to every business that desires to meet up with its short-term financial obligations. The success of any business venture is predicated on how the management has planned and controlled its cash flows so as to achieve an optimum level of cash in the firm's working capital. Cash represents the basic input necessary to start and keep a business running. A company needs to maintain sufficient cash to keep its business running smoothly. Cash shortage will disrupts the firm's operation and can even lead to insolvency. Excessive cash will tie down unnecessarily long-term capital with a result that the return on capital employed will be low. A firm thus needs to maintain sound cash position (Akinyomi, 2014).

Abioro (2013), pointed out that no business operation is isolative of cash management. Cash is regarded as the most important current asset for the operation of business. Cash is the basic input required to keep the business running on a continuous basis and it is also the ultimate output expected to be realized by selling the services or products manufactured by the firm. Cash management is imperative in every business organization as cash is said to be the life blood of any business. The essence of cash management is to ensure positive cash flow for smooth business operation.

Cash management is the practice of planning and controlling cash flows into and out of the business, cash flows within the business, and cash balances held by a business at a point in time. Efficient cash management involves the determination of the most favourable cash to hold by considering the trade-off between the opportunity cost of holding too much cash and the trading cost of holding too little. Cash management is fundamental to every business that desires to meet up with its short-term financial obligations. Therefore, cash management consists of taking the necessary actions to maintain adequate levels of cash to meet operational and capital requirements and to

obtain the maximum yield on short-term investments. Cash management assumes more significance than other current assets because cash is the most important asset that a firm holds. Cash, unlike fixed assets or inventories does not produce goods for resale, notwithstanding management's considerable time is devoted to managing cash (Akinyomi, 2014).

Duncan, Agnes, Member and Tirimba (2015) explained that the purpose of cash management is to determine and achieve the appropriate level and structure of cash, and marketable securities, consistent with the nature of the business's operations and objectives. The determination of optimal cash balance involves a combination of investment and financial decisions. Cases where demand for money is of a cyclical nature, a combination of short and long-term borrowing should be used to avoid the use of long term funds to cover peaks arising from idle cash balance, during periods of low cash demand. The determination of the amount of buffer money to hold is seen as an investment decision.

Basically cash management is concerned with managing cash flows (cash inflows and cash out flows). Major sources of cash inflow include cash from operating activities, sale of business assets, among others. Sources of cash out flows may include settling of creditors, purchase of inventory, among others. Cash needs to be efficiently managed and allocated to meet routine business objectives. The gap between cash expenses and cash collection enhances liquidity position, profitability, leading to overall business growth over a period of time. Cash management is an important aspect of financial management function and its importance cannot be over-emphasized. When companies understand and implement the concept of efficient cash management, business success will be achieved. However, shortage or bad management of cash may result in loss of cash discount, loss of reputation due to non-payment of obligation on due dates and insolvency which may result in operational shut down of the company (Al Smirat, 2016).

2.4.5 Family Characteristics

Family firms have been defined on the basis of different family, levels of family involvement and other family firms dimensions (Alfred & Xaio, 2014). Family firms are characterized as organizations in which the shareholders belong to the same family and participate substantially in the management, direction, and operation of the company. Family firms are companies in which one or more families are linked by kinship, close affinity, or solid alliances, hold a sufficiently large share of risk capital to enable them to make decisions regarding strategic management (Gulzar & Wang, 2010).

Wee and Ibrahim (2012) point out that, it is the intersection between family members, the family, and the business that is believed to represent the unique set of features that explain performance difference between family and non-family businesses. This intersection also represents a source of conflict within the family and within the business. Conflict within the family may arise as a result of business issues such as disagreements over growth targets, succession, product offering, time spent away from the home, marital differences, or lack of attention to important family events. Thus, the origin of these conflicts is often the direct result of the close and repeated interaction between family members, the family, and the business.

Gulzar and Wang (2010), argued that each family has its own unique ethics, values, histories, unwritten rules and communication methods. As the family structure shrinks or expands, the company changes, particularly with the start of the second and third generations. Changes instigated by new generations can improve or harm the business. Family businesses are also characterized as organizations in which the shareholders belong to the same family and participate substantially in the management, direction, and operation of the company.

The existing literature provides few clues into the specific ways in which family firms use their characteristics to affect value (growth). Direct tests on the effect of family characteristics on performance are rare in the literature. Yet, they provide the

distinguishing mark and the future of this area of research. Family characteristics, such as family size and resources can have an important impact on firms' outcomes. If, for example, costly external financing is a crucial friction in the market place, the ability of the firm to overcome this friction may depend on the depth of the family's pockets. Thus, family firms play a crucial role in decision making. At the most general level, family governance determines the type of interactions between the family and the firm and the rules that guide those interactions (Bennedsen *et al*., 2010).

2.4.6 Growth of Family Businesses

Several determinants of firm growth have been suggested and researchers have been unable to achieve a consensus regarding the factors leading to firm growth. The commonly used measures of firm growth include but not limited to sales growth, profit, return on equity, return on assets, and entrepreneurs' perceived growth relative to their competitors in terms of increase in company's value. Business growth can be measured in terms of sales, number of employees, value added, and complexity of the product line, production technology or the number of business units (branches) in different locations (Bunyasi *et al.*, 2014).

Family firms have great importance for local and regional economies and bring stability and permanence to their regions. The owners' commitment is strong and therefore the domicile of the firm often remains the same. The family firm has a unique position in the local community, which is both personal and commercial. They usually act as engines for regional economic development, since they have a positive attitude towards growth, and their own growth is usually more profitable than that of other companies. The owners of family firms as persons are committed to the development and continuity of their firms (Finnish Family Firms Association, 2009).

Phillips (2012) showed that family firms have exhibited unprecedented growth across the world. Family firms' growth is both socially and economically important. Whereas family proprietors aim at long-term value maximization, managers of non-family firms

grow revenue on a short-term basis to satisfy shareholders and to pursue their own personal gains. These firms reported higher sales growth and greater improvement in net margins for family firms compared with non-family firms. The family proprietors thus have greater incentive to maximize firm value in order to enhance their interest in the firm.

Wee and Ibrahim (2012), pointed out that enterprise growth is regarded as a key to economic development and to the creation of wealth and employment. Therefore, expectations for future growth are formed under the influence of various factors. They include environmental factors, characteristics of people, that is, owner-managers, and characteristics of the enterprise being practiced. Faced with numerous challenges and depending on the readiness, capabilities and competencies of the successor, not every entrepreneur is willing to expand or grow the family business.

Zahra (2005) points out that some researchers have expressed concern over time that some family firms become resistant to change and follow conservative strategies that limit their future growth and profitability. Thus, Alfred and Xaio (2014) asserts that proper management can greatly assist the family businesses by infusing better financial management practices, stronger internal auditing and greater opportunities for growth. Board (family) members, who acquired financial education, bring into the firm expertise and knowledge on financing options available and strategies to source such finances, thus dealing with the credit constraint problem of family businesses as well.

By their very nature, small family businesses tend to show far more volatile pattern of growth and earnings, with greater fluctuations, than larger companies (Alfred & Xaio, 2013). Poor business performance has for long remained unexplained especially in the third-world countries perspective where the small family firms occupy the large part of the economy. However, some studies from developed nations cite inefficient financial management practices to contribute immensely to poor business performance (Turyahebwa *et al*., 2013).

2.5 Empirical Review

Family firms are widely available throughout the world. In Europe, about 50% of companies may be categorized as family based companies. In Latin America, between 65% and 90% of all registered firms are run by families. In the USA, the percentage is 95%. Family firms also greatly contribute to GNP. For example, in member countries of the European Union, family companies contribute between 35% and 65% of the GNP. In countries such Sweden, the contribution of family companies to the GDP is over half in the private business sector. Furthermore, a great deal of research indicated that families' shareholdings are common in public traded companies throughout the world. They have large shares and are represented by executives and members of the board of directors in East Asia, in the Western Europe, and in the USA (Dwaikat *et al*., 2014).

Lakew and Rao (2009), investigated the effects of financial management practices and characteristics on profitability of business enterprises in Ethiopia. The efficiency of each of this financial management practices was measured by using ten items on five-point scales in which the respondents were asked to rate where the positions of their businesses are for each item described. The empirical finding showed that factors of financial management are good tools for improving enterprise's profitability. The finding led to the conclusion that the efficiency of financial management practices and characteristics can bring about higher profitability. Therefore, business organizations can improve profitability by raising the efficiency of financial management practices and characteristics. Sound financial management is essential to the success of businesses organizations. Successfully managing financial resources is important in new as well as expanding business. So time should be taken to develop and implement financial management practices that ensure success of business enterprises.

Lusardi and Mitchelle (2014) in their study on "the economic importance of financial literacy; theory and Evidence," demonstrated that low levels of financial knowledge are pervasive, suggesting that it will be quite challenging to provide the tools to help people function more effectively in complex financial and credit markets requiring

sophisticated financial decision making. While research in this field continues to spread, it seems clear that there are likely to be important benefits of greater financial knowledge, including saving and investment decisions, better debt management, more retirement planning, higher participation in the stock market, and greater wealth accumulation. Though it is challenging to establish a causal link between financial literacy and economic behavior, both instrumental variables and experimental approaches suggest that financial literacy plays a role in influencing financial decision making, and the causality goes from knowledge to behavior.

Ampenberger, Schmid, Achleitner, and Kaserer, (2013), in their study, found that firm size had a positive and highly significant correlation with the level of leverage. However, the empirical finding that large and growing companies have more debt in their balance sheet is not surprising. They also found that firm age (measured by the natural logarithm of years since incorporation) is positively correlated with the level of leverage. Thus, mature firms tend to use more debt than younger firms. The tangibility ratio measured by tangible assets divided by total assets showed a positive correlation with the level of leverage since collaterals increase borrowing capacity. In contrast, they found that growth options and profitability have on average a negative influence on the leverage ratio.

Abioro (2013), conducted a study on the impact of cash management on the performance of manufacturing companies in Nigeria and his study revealed that implementation of a good cash management system will ensure better control of financial risk, increase the opportunity for profit, strengthen the company's balance sheet, ensure increased confidence in the company and improve operational efficiency. Research results showed that there was a positive relationship between the efficiency of cash management policies and the overall business performance. The study found that there is a positive relationship between the level of cash flow and the profitability of the company. Therefore, his research concluded that for any business organization to maintain liquidity and ensure better performance, its system of cash management must be effective and efficient.

Al Smirat (2016) conducted a research to discover and understand cash management practices of small and medium enterprise in Jordan. The research was conducted by gathering data from both primary and secondary sources. His study revealed that the business owners have no sufficient knowledge in cash management practices, and did not keep track of their cash payments and receipts, and seldom prepared cash budgets of financial plans. It was revealed that there was a strong positive relationship between firm's financial performance and effective cash management.

Padachi *et al*. (2012) conducted a study on working capital financing preference in Mauritanian manufacturing firms. The study focused on the financing variables and examined the financing preferences of the firms that were requesting working capital financing. They also examined the extent of trade credit, short-term borrowing, traditional sources (bank loans and bank overdrafts), formal working capital finance, equity finance, bootstrap finance and retained profits as sources of finance among the Mauritian manufacturing SMEs. The sample firms were asked about their sources for the funds used during the start-up phase and also for financing their current needs. The responses regarding these different sources of funds should provide an indication as to whether the financing pattern follows a pecking order. The survey results demonstrated a clear preference for using their own savings and short-term borrowing to finance the start-up phase and for relying mostly on internally generated funds (retained profit) and short-term borrowings (bank overdrafts and bank loans) to finance the current needs of the business.

2.6 Critique of the Existing Literature

Wilson, Wright and Scholes (2013) argued that family firms may be more likely to survive than non-family firms due to greater efficiency. Family firms may be more efficient in part due to their propensity to be more prudent or thrifty in resource use because they fund their activities with their own money.

Family firms rely on internal sources of financing hence may scrutinize business opportunities with greater intensity and forgo inefficient unrelated diversification. To the extent that family firms engage in fewer diversifying acquisitions, business risk may also be reduced and survival chances increased.

Romano *et al*. (2000), pointed out that financial theories, as explained by Myers (1984), do not adequately explain financing behavior. Despite this acknowledgment, the key determinants of capital structures of SMEs do not appear much clearer today. Obviously, without a clear appreciation of the magnitude and direction of relationships between antecedent organization and owner-manager characteristics and capital structure, researchers are unable to explicate satisfactorily how family business owners choose between different types of finance. Family business owners typically reinvest most, if not all, of their funds during the early stages of the life cycle of their business. However, in later years, because of families' growing financial demands, owners tend to use company profits rather than reinvesting capital for additional growth.

Waweru and Ngugi (2014) assert that firm performance is one of the most important objectives of financial management because one goal of financial management is to maximize the owner's wealth. Thus, performance is very important in determining the success or failure of a business. At the establishment stage, a business may not be profitable because of investment and expenses for establishing the business. When the business becomes mature, profits have to be produced. Due to the importance of performance, firms need to concentrate on performance. The aim of a business is not only the generation of sales, but also generation of profits. Profit is especially important because it is necessary for the survival of a business. Low performance contributes to under-capitalization problems because it leads to retained earnings and therefore to a reliance on external capital.

Prior research suggested that deficiencies in financial literacy is one of the causes of inertia and sub-optimal financial decision-making. While studies have found that financial literacy is generally low, studies on the demographic and socio-economic

factors such as gender, education, income and inequality are still debatable and warrant further studies. Moreover, studies on the impact of financial literacy on investment decisions have also produced mix conclusion and relevant to the current advancement of financial climate. Research interest on financial literacy has been developed more than a decade ago in which researches had mainly been conducted for developed countries such as in the United States of America (USA) and the United Kingdom (UK). Although there appears to be consensus regarding the importance of financial literacy, especially in economic development, empirical research is limited (Awais *et al*., 2016).

Abioro (2013), pointed out that no business operation is isolative of cash management. Cash is regarded as the most important current asset for the operation of business. It is the basic input required to keep the business running on a continuous basis and it is also the ultimate output expected to be realized by selling the services or products manufactured by the firm. Cash management is imperative in every business organization as cash is said to be the life blood of any business. The essence of cash management is to ensure positive cash flow for smooth business operation. Basically, the process of managing cash today has been significantly influenced by the growing developments in the business world over the years. The objective in disbursement as a cash management strategy is to slow down disbursement as much as possible. By delaying payments, firm makes maximum use of trade creditors as a source of fund, as source which is interest free. This can be achieved through increasing disbursement float and maintaining controlled disbursement accounts.

2.7Research Gaps

Lack of empirical evidence from less developed economies and the lack of examination of the effect of financial management practices and financial characteristics on growth and profitability are major gaps in the knowledge of financial management. Therefore, it is difficult to convince business practitioners of the need for changes in practices until evidence of the influence of financial management practices and characteristics on profitability are provided and the relationship between the two variables is proved.

Based on previous research findings and recognition of these gaps, a study of the influence of financial management on the growth of family businesses is justified, developed and tested by using empirical data from less developed economies (Lakew & Rao, 2009).

Waweru and Ngugi (2014) argued that the influence of financial management practices on performance is one significant topic as evidenced by an increasing number of publications and studies on the topic. Locally, studies on financial management practices that have been done include: Wanyungu, (2001) who did a research financial management practices of micro and small enterprises in Kenya, A case of Kibera, while Mundu (1997) did a research on selected financial management practices by small enterprises in Kenya. None of these local studies has ever focused on financial management practices in family firms in the whole of Kenya. It is in this light that the current study seeks to fill the existing research gap by studying the influence of financial management Practices on the growth of family businesses in Kenya.

As pointed out by Lakew and Rao (2009), most authors and researchers approach the specific areas of financial management in different ways depending upon their emphasis. The main areas of financial management include financial planning, investment decision-making, working capital management and sources of financing. Some researchers identified the components of financial management as financial planning and control, financial accounting, financial analysis, management accounting, capital budgeting and working capital management; while others classified financial management practice as capital structure management, working capital management, financial reporting and analysis, capital budgeting and accounting information system. Generally, from the above and other literatures, it is possible to identify four major areas of financial management practices for this study that is, financial literacy, financing, allocation of financial resources and cash management.

Wamiori *et al*. (2016), point out several factors that impact on firm's ability to access credit include variables largely controllable by a firm, such as managerial competencies, quality of business information, availability of collateral and networking. Other factors identified as factors constraining access to credit include interest rates, collateral requirement, cumbersome documentation and time. Banks are less reluctant to lend to manufacturing firms because they may have access to detailed information about these firms' transactions through records of their checking accounts and of other financial transactions in which the bank has participated. These records allow banks to verify information that the firms provide about their financial performance.

Reviewed literature reveal that many studies especially in Kenya have mainly dwelt on importance of financial literacy and its effects on household or personal financial behavior with little effort to ascertain the role of financial literacy on the growth of small businesses that account for over 75% of the private sector in Kenya spurring the economic growth. Although deliberate efforts have been made to avail subsidized capital to this sector, the failure rate remains high. There is need to delve further on how financial illiteracy inhibits growth, results to poor performance and subsequent failure of small businesses in Kenya (Lusimbo & Muturi, 2016).

2.8 Summary

Family firms generally have the benefits of a strong identity and sense of unity that enable them to carry on a long-term view of the business and its sustainability. The scope of family businesses has expanded to include some of the world's largest companies and their economic weight remains massive. In all markets, family businesses form the bulk of the economy and in terms of numbers of individual enterprises, they account for a significant proportion of GDP in the markets.

Family firms represent the majority of all businesses in countries around the world. They occupy an important economic position within most of these nations as they provide extensive contributions to worldwide economic production, employment, and wealth creation. Most of these family firms can be categorized as small or medium-sized. Despite the fact that the majority of firms are family firms, the "family component" has often been neglected in organizational research. Recently, several scholars concluded that omitting the family as a variable in organizational research can lead to incomplete and misleading findings.

The small business sector in Kenya has received significant focus over the last four decades in terms of research and policy while the media in Kenya, in the recent past, has highlighted a number of failed cases of family businesses, particularly the SMEs. Such instances, among others, include the failure of the stock brokerage firms in Kenya, the case of Fransis Thuo & Partners, Nyaga Stock Brokers and Discount Securities. Mombasa is not an exception and since the region has been considered the hub of family businesses, failed family businesses include, among others, A. O. Bayusuf Limited, Dhanjal Brothers Limited, Tawfiq Bus Services, Washanga Chicken Farm, Mombasa High School, Hussein Dairy Farm, TSS Milling Kenya; were all running successful family businesses in different industries in the region.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines how the study was carried out. It covers the design used to do the research in terms of research procedures, the target population and sample size, which data collection methods were used and how data was analyzed.

3.2 Research Design

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose (Kothari & Garg, 2014). This study adopted a mixed research design where both quantitative and qualitative approaches were used to determine the influence of financial management practices and growth of family firms. Creswell (2014), showed that both forms of data provide different types of information. Each type of data collection has both limitations and strengths that can be combined to develop a stronger understanding of the research problem or questions (and, as well, overcome the limitations of each). This "mixing" or blending of data provides a stronger understanding of the problem or question than either by itself.

3.3 Target Population

Kothari and Garg (2014) describes target population as total items about which information is desired. Since most small businesses are family businesses (Maalu *et al*., 2013), the target population of this study comprised of all registered businesses by the County Government of Mombasa as at 31stDecember, 2015, that have been in operations for over three years with a focus on the family owners and/or managers of these family firms. The target population comprised of 48,187 registered businesses in Mombasa

County as at 31st December, 2015, from different sectors as classified by the County Government of Mombasa registry as shown in Table 3.1.

Table 3.1: Target Population

Business (Industry) Activity	Total Number
Trading, Shop & Retail	29,247
Transport, Storage and Communications	2,172
Agriculture, Mining and Natural Resources	1,505
Tourism, Hotel and Restaurants	3,604
Financial, Professional and Technical Services	6,834
Education, Health and Entertainment	1,897
Manufacturing, Industrial and Plant	2,928
Total	**48,187**

3.4 Sampling Frame

The study was restricted to Chief Executive Officers, General Managers and Finance Managers of all registered family businesses who are either owners of the family businesses or hired to operate the family businesses. The sampling frame consisted of all registered businesses in all the Business Sectors (Industries) in the County Government of Mombasa as at 31st December 2015. The list of the firms obtained sufficiently represented the target population.

3.5 Sample Size and Sampling Technique

The researcher used data or list of all registered businesses provided by the County Government of Mombasa as at 31st December, 2015. The sample size obtained was adequate and yielded desired precision.

In determining the sample size, Slovin's formula was used to calculate the sample size (at 95% confidence level and α = 0.05) as indicated on Equation 3.1.

$$n = \frac{N}{(1+N\,e^2)} \quad \text{..... Equation 3.1}$$

Where,

n = is the desired sample size

N = is the population size

e = margin of error (at 95% confidence level

Therefore, sample size was given as,

n = 48,187 / (1+48,187 (0.05^2))

= 397 ..... Equation 3.2

Stratified sampling was used to select the sample size of 397 from the different business/activity sectors from the sampling frame representing 48,187 registered businesses in Mombasa County. Simple random sampling was then used to select the sample size as the researcher observed that almost all family businesses in the study area had been operating in at least more than one industry as classified in the sampling frame. The sample business units were selected randomly by the researcher on the basis that the sample unit selected out of the sample size was typical or representative of the whole (Kothari & Garg, 2014).

Table 3.2: Sample Size

Business (Industry) Activity	Total Number	Population Percentage	Sample Size
Trading, Shop & Retail	29,247	60.7%	241
Transport, Storage and Communications	2,172	4.5%	18
Agriculture, Mining & Natural Resources	1,505	3.1%	12
Tourism, Hotel and Restaurants	3,604	7.5%	30
Financial, Professional & Technical Services	6,834	14.2%	56
Education, Health and Entertainment	1,897	3.9%	16
Manufacturing, Industrial and Plant	2,928	6.1%	24
Total	**48,187**	**100%**	**397**

The selected sample units show a general representation of other family businesses in the study area that operate in different business activities (sectors).

3.6 Data Collection Methods

Both primary and secondary data were collected for the purpose of this study.

3.6.1 Primary Data

Primary data was collected from the Chief Executive Officers, General Managers and Finance Managers of family businesses in Mombasa County. The researcher used questionnaires as primary data collection instrument. Kothari& Garg (2014), defines a questionnaire as a tool that consists of a number of questions printed or typed in a definite order on a form or set of forms, sent to persons concerned with a request to

answer the questions and return the questionnaire. It can be administered or mailed to the respondents. In this study, due to specialized nature of family businesses, the questionnaire were self-administered by the researcher and with the help of research assistants. Sasaka, Namusonge and Sakwa (2014) showed that self-administered questionnaires are usually preferred for purposes of developing close relationship with the respondents and also assists in providing clarifications sought by respondents on the spot. The questionnaires were collected immediately after they were filled and any omission were detected.

The questionnaire was divided into three parts. Part I comprised questions on respondents information, Part II – General information about the business and Part III – Financial management practices (that is, financial literacy, financing, allocation of financial resources, cash management, family characteristics) and growth of family businesses. Both structured questions and Likert scale were used to capture relevant information for the study. The questions were formulated to address all the objectives of the study.

3.6.2 Secondary Data

Secondary data on revenues, profitability and change in net-worth were collected from various published financial statements and family financial business records for the various years of operations. However, secondary data collected was privy to the respective family business and thus treated with high level of confidentiality to complement and validate the primary data collected.

3.7 Data Collection Procedure

Data was collected through administration of questionnaires with the help of the research assistants. The questionnaires were self-administered to either the Chief Executive Officer, General Manager, or Finance manager who are considered to be holding the top management positions in the family business operating in Mombasa

County. The researcher also used face-to-face interviews to get highest response rate and capture important aspects apart from the questions asked in the questionnaire. The questionnaires were first dropped with an introductory letter of authority to carry out research to the firms and follow up was done through telephone and personal visits to secure appointments with the respondents from the firms for face-to-face interview. This was useful to ensure consistency in the interpretation of questions in order to achieve high response level and avoid any misinterpretation of questions or inconsistent responses.

3.8 Pilot Study

Piloting is done to ascertain the reliability and validity of the instrument to be used for collecting data. This is essential as it reveals the weakness that may be in the questionnaire, for instance unclear directions, ambiguous questions and general layout. Pilot study also helps in assessing the feasibility of the study; designing a research protocol and assessing whether it is realistic and doable; establishing whether the sampling frame and technique are effective; identifying logistical problems which might occur with the proposed methodology; determining resources needed for the planned study and assessing the proposed data analysis techniques to uncover potential problems. (Duncan *et al*., 2015).

The questionnaire was pre-tested on selected family businesses before the study commenced. It was essential to pre-pilot questionnaire so as to increase the validity and reliability by identifying any ambiguity of the questions in the questionnaire and establish the range of possible responses for each question. Thirty questionnaires were used for pilot study administered to the thirty family businesses in different industries in Mombasa County. Hill (1998), suggested 10 to 30 participants for pilots in survey research.

3.8.1 Validity Test of Research Instrument

Validity refers to the accuracy of the research instrument to measure what it is supposed to measure (Kothari & Garg, 2014). It is the degree to which results obtained from the analysis of the data actually represent the phenomenon under the study.

In this study, the questionnaire was guided by the conceptual framework in order to measure the elements of financial management practices and growth of the family businesses to ensure all the types of validity are addressed.

3.8.2 Reliability of Research Instrument

Reliability refers to the measure of the degree to which a research instrument yields consistent results on across time and across the various items of the instrument. Reliability is the extent to which an instrument is predictable, accurate and dependable to yield the same results every time it is administered (Kothari& Garg, 2014). Reliability is the ability of the research instrument to give the same answer in the same circumstances from time to time. If respondents answer a questionnaire the same way on repeated situations, then the questionnaire is said to be reliable (Sasaka *et al*., 2014).

Cronbach's alpha was developed by Lee Cronbach in (1951) to provide a measure of the internal consistency of a test or scale; it is expressed as a number between 0 and 1. Internal consistency describes the extent to which all the items in a test measure the same concept or construct and hence it is connected to the inter-relatedness of the items within the test. Internal consistency should be determined before a test can be employed for research or examination purposes to ensure validity (Tavakol, 2011).

Cronbach's alpha basic equation measure which is an extension of the Kuder-Richardson formula 20 (KR-20), reliability coefficient of internal consistency was determined and given by equation 3.3.

$$KR-20 = \frac{(K)(S^2 - \sum S^2)}{(S^2)(K-1)}$$ .....Equation 3.3

Where,

KR-20 – Reliability coefficient of internal consistency

K – Number of questions used to measure the reliability

$\sum S^2$ – Total variance of overall scores on the entire test

S^2 – Variance of scores on each question

3.8.3 Reliability Results

This study investigated the reliability of the independent variables (that is financial literacy, financing, allocation of financial resources, cash Management), moderating variable (family characteristics) and the dependent variable (growth) of family businesses in order to check for internal consistency. Internal consistency of measures was tested by computing the Cronbach's alpha co-efficient as illustrated in Table 3.3

Table 3.3: Reliability Results

Variable	No. of Items	Sample Size (N)	Reliability co-efficient Alpha	Accept/ Reject
Financial Literacy	10	309	.960	Accept
Financing	10	309	.747	Accept
Allocation of Financial Resources	10	309	.927	Accept
Cash Management	10	309	.869	Accept
Family Characteristics	10	309	.937	Accept
Growth	10	309	.903	Accept

3.8.4 Data Management

Data collected was screened to find out any missing values or errors that could be corrected. Before any statistical analyses were done, the researcher checked for normality of the variables under the study. The assumption is that the variables are normally distributed. In their study, Ali, Namusonge and Sakwa (2016), showed that the assumptions and application of statistical tools as well as suitability of the tests are important aspects for statistical analysis. Verified data inspire stakeholder confidence and give reliable inferences and trustworthy interpretations for policy making. To check for normality, the study adopted the One-sample Kolmogorov-Smirnov test, Skewness and Kurtosis test, and Auto correlation test.

a) Normality Tests

Many parametric statistical methods, such as analysis of variance or ANOVA test, linear regression, Pearson correlation, f-test and t-test, require that the dependent variable is approximately normally distributed for each category of the independent variable.

b) Skewness and Kurtosis Test

In respect of the measures of skewness and kurtosis, we mostly use the first measure of skewness based on mean and mode or on mean and median. Other measures of skewness, based on quartiles or on the methods of moments, are also used sometimes. Kurtosis is the measure of flat-topped-ness of a curve. A bell shaped curve or the normal curve is mesokurtic because it is kurtic in the centre; but if the curve is relatively more peaked than the normal curve, it is called Leptokurtic whereas a curve is more flat than the normal curve, it is called Platykurtic. In brief, Kurtosis is the humped-ness of the curve and points to the nature of distribution of items in the middle of a series (Kothari & Garg, 2014).

Skewness and Kurtosis tests were used to measure symmetric distribution and peak-ness of distribution respectively. The values of asymmetry and kurtosis between -2 and +2 are considered acceptable to prove distribution normality (Ali *et al*., 2016).

The skewness and kurtosis measures should be as close to zero as possible. However, in reality, data are often skewed or kurtotic. A small departure from zero is therefore not a problem as long as the measures are not too large compared to standard errors. In this study, the skewness and kurtosis are within the accepted ranges. It is therefore assumed that the data are approximately normally distributed, in terms of skewness and kurtosis.

Table 3.4: Skewness and Kurtosis

Variable	**N**	**Skewness**		**Kurtosis**	
	Statistic	**Statistic**	**Std. Error**	**Statistic**	**Std. Error**
Growth	309	.285	.139	-.436	.276
Valid N (listwise)					

c) One-Sample Kolmogorov-Smirnov Test

Kolmogorov–Smirnov test is a test used to check if a dataset is from a particular distribution. It is a non-parametric test and is applicable for continuous distributions. It is used to test whether the distribution of a variable in a sample is similar to or different from the distribution of a population which is already known (Greener, 2008).

Table 3.5: One-Sample Kolmogorov-Smirnov Test

Non-parametric Test		GROWTH
N		309
Normal Parameters[a]	Mean	22.2379
	Std. Deviation	5.31869
Most Extreme Differences	Absolute	.110
	Positive	.110
	Negative	-.076
Kolmogorov-Smirnov Z		5.926
Asymp. Sig. (2-tailed)		**.431**

Test distribution is Normal.

The null hypothesis is that the sample is drawn from the reference distribution (that is, the data is probably normal). A one-sample Kolmogorov-Smirnov test failed to reject the null hypothesis that the data followed the normal distribution since the Asymp. Sig. (p-value) is 0.431 which is greater than the one set at p>0.05.

d) Durbin-Watson (Autocorrelation) Test

The main cause of autocorrelation is omitted variables from the model. When an important independent variable is omitted from a model, its effect on the dependent variable becomes part of the error term. Hence, if the omitted variable has a positive or negative correlation with the dependent variable, it is likely to cause error terms that are positively or negative correlated (Babatunde, Ikughur, Ogunmola & Oguntunde, 2014).

One of the assumptions of regression is that the observations are independent. If observations are made over time, it is likely that successive observations are related. If there is no autocorrelation (where subsequent observations are related), the Durbin-Watson statistic should be between 1.5 and 2.5. As shown in Table 3.6, the Durbin-Watson value is 1.899 which indicates that the observations under the study were independent and thus no autocorrelation.

Table 3.6: Durbin-Watson (Autocorrelation) Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.803[a]	.644	.639	.45770	1.899

3.9 Data Analysis and Presentation

The data was collected, processed and analyzed with respect to the study objectives, using both descriptive and inferential statistics. The tool of analysis used for this study was Statistical Package for Social Sciences (SPSS) version 22.0. The data was analyzed using descriptive statistics such as mode, median, mean, standard deviation. Research hypotheses were tested by use of F-tests (ANOVA) and t-tests to measure and determine the statistical significance between the variables and to draw conclusions of the study. The data was also assumed to take a normal distribution.

Correlation and multiple linear regression analyses were also used to determine the relationship between the financial management practices and the growth of family businesses. Univariate analysis was first done for each independent variable to establish their influence on the dependent variable and as preparation for multivariate analysis. Moderation study was also done to establish the influence of family characteristics (moderating variable) on each of the independent variable that affects the dependent variable (growth of family businesses).

3.9.1 Multiple Linear Regression Model

The study employed multiple linear regression model given by equation 3.4

$$Y = \beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\varepsilon \quad \text{..... Equation 3.4}$$

Where,

β_0 – co-efficient of the constant variable,

β_1, β_2, β_3, and β_4 are regression coefficients;

X_1– Financial Literacy;

X_2 – Financing;

X_3– Allocation of Financial Resources;

X_4 – Cash Management;

Y – Growth of family businesses and

ε- Stochastic Error term.

3.9.2 Moderated Multiple Regression Model

The moderated multiple regression model was given as:

$$Y = \beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+Z\beta_1X_1+ Z\beta_2X_2+Z\beta_3X_3+Z\beta_4X_4+\varepsilon \text{ ….. Equation 3.5}$$

Where,

Y – Growth of family businesses in Kenya

β_1, β_2, β_3, and β_4 – regression coefficients

X_1 – Financial Literacy; X_2 – Financing; X_3 – Allocation of Financial Resources; X_4 – Cash Management; Z – Family Characteristics, and

ε – Error term.

Tests on the continuous moderator variable effects were performed by computing a variable, Independent variable intersection the moderating variable from the data, and subjecting it to a regression model as a predictor. Tests were carried out on the overall effect of independent variables to determine the moderating effect for them. The moderated multiple regression was used to estimate the effect of a moderator variable (family characteristics) on the independent variable (financial management practices) and the dependent variable (growth of family businesses).

3.9.3 Variable Definition and Measurement

The study used a Likert scale for item analysis to determine the influence of financial management practices on the growth of family firms. The assessment was done using the 5-point scale on the questionnaire. Patton (2002), as cited by Sasaka *et al*. (2014), showed that Likert scale was easy to use in respondent studies.

Table 3.7: Variable Definition and Measurement

Variable Scale	Indicators	Measurement
Financial Literacy	1. Financial-economic Knowledge	5-Point
	2. Financial analysis capability	Likert Scale
3. Access to Financial Information		
Financing	1. Access to Credit	5-Point
	2. Planning for Funds	Likert Scale
3. Financial Leverage		
Allocation of Financial	1. Allocation of Funds	5-Point Resources
2. Allocation of Income	Likert Scale	
3. Control of Funds		
Cash Management	1. Cash Requirements	5-Point
2. Disbursement of Funds	Likert Scale	
3. Liquidity		
Family Characteristics	1. Family Size	5-Point
2. Education Characteristics	Likert Scale	
3. Economic Values		
Growth of Family	1. Revenues	5-Point Business
	2. Profitability	Likert Scale
	3. Change in net worth	

3.9.4 Hypotheses Testing

The study was based on the assumption that financial management practices had an influence on the growth of family firms. The conceptual framework was used to guide the study and five relevant hypotheses were therefore set out and tested at 95 per cent confidence level (level of significance, $\alpha = 0.05$). To test the hypotheses of the study, the p-value was used to test the significance of each independent variable to the dependent variable. If the p-value calculated was less than 0.05, the null hypothesis is rejected.

Table 3.8: Study Hypotheses and Analytical Models

Hypotheses	Hypothesis Test	Decision Rule and Anticipated Model
There is no significant correlation between financial literacy and the growth of family businesses in Kenya.	Karl-Pearson Coefficient of correlation; F-test (ANOVA), T-test	Reject H_{01} if p-value≤.05, otherwise, fail to reject if p-value≤.05. Analytical Model: $Y = a+\beta_1X_1+\beta_2X_2+\beta_3X_3+e$, where, a=constant, β_1, β_2 andβ_3 = correlation co-efficient; X_1 = financial-economic knowledge, X_2 = financial analysis capability and X_3 = access to financial information; e = error term
There is no significant correlation between financing and the growth of family businesses in Kenya.	Karl-Pearson Coefficient of correlation; F-test (ANOVA) T-test	Reject H_{01} if p-value≤.05, otherwise, fail to reject if p-value≤.05. Analytical Model: $Y = a+\beta_1X_1+\beta_2X_2+\beta_3X_3+e$, where, a=constant, β_1, β_2 andβ_3 = correlation co-efficient; X_1 = access to credit, X_2 = planning for funds and X_3 = financial leverage; e = error term
There is no significant correlation between allocation of financial resources and the growth of family businesses in Kenya.	Karl-Pearson Coefficient of correlation; F-test (ANOVA) T-test	Reject H_{01} if p-value≤.05, otherwise, fail to reject if p-value≤.05. Analytical Model: $Y = a+\beta_1X_1+\beta_2X_2+\beta_3X_3+e$, where, a=constant, β_1, β_2 andβ_3 = correlation co-efficient; X_1 = allocation of funds, X_2 = allocation of income and X_3 = control of funds; e = error term
There is no significant correlation between cash management and the growth of family businesses in Kenya.	Karl-Pearson Coefficient of correlation; F-test (ANOVA) T-test	Reject H_{01} if p-value≤.05, otherwise, fail to reject if p-value≤.05. Analytical Model: $Y = a+\beta_1X_1+\beta_2X_2+\beta_3X_3+e$, where, a=constant, β_1, β_2 andβ_3 = correlation co-efficient; X_1 = cash requirements, X_2 = disbursement of funds and X_3 = Liquidity; e = error term
There is no significant correlation between family characteristics, financial management practices and growth of family businesses in Kenya.	Karl-Pearson Coefficient of correlation; F-test (ANOVA) T-test	Reject H_{01} if p-value≤.05, otherwise, fail to reject if p-value≤.05. Analytical Model: $Y = a+\beta_1X_1+\beta_2X_2+\beta_3X_3+e$, where, a=constant, β_1, β_2 andβ_3 = correlation co-efficient; X_1 = family size, X_2 = education characteristics and X_3 = economic values; e = error term

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter describes the findings and discussion of results of the study on the financial management practices and growth of family businesses in Kenya. The data collected in this study was evaluated, discussed and inferences made, in an effort to address the specific objectives of the study. Descriptive and inferential statistics were used to analyze the data on each variable. Data was presented in the form of frequency distribution tables to facilitate description and explanation of the study findings. The inferential statistical analysis was conducted for the purposes of testing hypotheses that were stated in chapter one and determining the relationship between independent, moderating and dependent variables. Data analysis was in line with specific objectives where patterns were investigated, interpreted and implications drawn on them. Data was presented in figures and frequency tables. The researcher tested reliability and regression model results were provided. Hypotheses were tested for all the independent variables and presented in this chapter.

4.2 Response Rate

Mugenda and Mugenda (2003),as cited by Theuri, Mugambi and Namusonge (2015) and Duncan *et al.* (2015), observed that a 50% response rate is adequate, 60% good and above, while 70% rated very well. Based on this assertion, the response rate of 77.8% in this case is therefore very good and is considered satisfactory to make conclusions for the study. Studies by Theuri *et al*. (2015) and Duncan *et al*. (2015), obtained similar response rates hence adequate.

Table 4.1: Response Rate

Response	Frequency	Percentage
Responded	309	77.8
Non-response	88	22.2
Total	**397**	**100**

The recorded high response rate as shown in Table 4.1 was attributed to the data collection procedures, where the researcher pre-notified the potential participants (Chief Executive Officers, General Managers or Finance Managers) of the intended survey, utilized a self-administered questionnaire where the respondents completed and immediately after, they were picked. Follow up calls were also made to clarify queries in the questionnaires.

4.3 Pilot Results

4.3.1 Reliability

The study conducted a pilot test analysis on family businesses to ascertain if the research instrument would bring out reliable information. The pre-test was conducted on thirty family businesses in Mombasa County. In each of the firm, only one questionnaire was filled by either the Chief Executive Officer, General Manager or Finance Manager who were considered to be holding top management position. Sasaka *et al*. (2014) pointed out that reliability is the ability of the research instrument to give the same answer in the same circumstances from time to time. If respondents answer a questionnaire the same way on repeated situations, then the questionnaire is said to be reliable.

Table 4.2: Reliability Results

Variable	Number of Items	Co-efficient Alpha	Comment
Financial Literacy	10	0.941	Accepted
Financing	10	0.902	Accepted
Allocation of Financial Resources	10	0.918	Accepted
Cash Management	10	0.818	Accepted
Family Characteristics	10	0.937	Accepted
Growth	10	0.879	Accepted

Cronbach's alpha was used to determine the reliability of the questionnaire used in this study. In their study, Theuri *et al*., (2015) showed that Cronbach alpha values ranges between 0 and 1.0; while 1.0 indicates perfect reliability, the value 0.70 is deemed to be the lower level of acceptability. The reliability statistic for each of the identified factors is presented in Table 4.2. It is evident that Cronbach's alpha for each of the independent variable is well above the lower limit of acceptability of 0.70. The findings indicated that financial literacy had a coefficient of 0.941, financing had a coefficient of 0.902, allocation of financial resources had a coefficient of 0.918, cash management had a coefficient of 0.818, family characteristics had a coefficient of 0.937 and growth had a coefficient of 0.879.

The analysis established that almost all the sections and questions achieved a Cronbach alpha of 0.7 and above. The study also assessed the responses per question to determine if there were any technical snags with the questions. Thus, the results indicated that the questionnaire used in this study had a high level of reliability.

4.3.2 Validity

Factor analysis was used to check validity of the constructs. Factor analysis is used to find factors among observed variables to produce a small number of factors from a large number of variables which is capable of explaining the observed variance in the larger number of variables (Theuri *et al*., 2015). Prior to extraction of the factors, several tests were used to assess the suitability of the respondent data for factor analysis. The tests included Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity.

Kaiser-Meyer-Oklin Measures of Sampling Adequacy (KMO) & Bartlett's Test of Sphericity is a measure of sampling adequacy that is recommended to check the case to variable ratio for the analysis being conducted. In most academic and business studies, KMO & Bartlett's test play an important role for accepting the sample adequacy. While the KMO ranges from 0 to 1, the world-over accepted index is over 0.5. Also, the Bartlett's Test of Sphericity relates to the significance of the study and thereby shows the validity and suitability of the responses collected to the problem being addressed through the study. For Factor Analysis to be recommended suitable, the Bartlett's Test of Sphericity must be less than 0.05 (Theuri *et al*., 2015).

The study applied the KMO Measures of Sampling Adequacy and Bartlett's Test of Sphericity to test whether the relationship among the variables was significant or not as shown in Table 4.3. The Kaiser-Meyer-Olkin Measures of Sampling Adequacy shows thevalue of test statistic as 0.829, which is greater than 0.5 hence an acceptable index. While Bartlett's Test of Sphericity shows the value of test statistic as 0.000 which is less than 0.05 acceptable indexes. These result indicate a highly significant relationship among variables.

Table 4.3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.829
Bartlett's Test of Sphericity	Approx. Chi-Square	2283.618
	Df	15
	Sig.	.000

4.3.2 Multi-Collinearity Test

Ruhiu, Ngugi and Waititu (2014), showed that a situation in which there is a high degree of association between independent variables is said to be a problem of multi-collinearity which results into large standard errors of the coefficients associated with the affected variables. Multi-collinearity can occur in multiple regression models in which some of the independent variables are significantly correlated among themselves. In a regression model that best fits the data, independent variables correlate highly with dependent variables but correlate, at most, minimally with each other. Multi-collinearity can also be solved by deleting one of the highly correlated variables and re-computing the regression equation.

Multicollinearity is associated with VIF above 5 and tolerance below 0.2. A commonly given rule of thumb is that VIF's of 10 or higher may be a reason for concern (Makori & Jagongo, 2013). The regression analyses are tested to see if there is a presence of autocorrelation and multicollinearity in the data Variance Inflation factor (VIF) statistics (Ruhiu *et al*., 2014).

Table 4.4: Multi-collinearity

Variable	Collinearity Statistics	
	Tolerance	VIF
Financial Literacy	.439	2.278
Financing	.752	1.329
Allocation of Financial Resources	.446	2.243
Cash Management	.539	1.854
Family Characteristics	.711	1.407

a. Dependent Variable: Growth

Table 4.4 shows the Tolerances for all the independent variables are all above 0.2. The Variance Inflation Factors (VIFs) are all below 5. The scores of these statistical tests are accepted, implying that there is no presence of autocorrelation and multicollinearity in the data. The independent variables of the study were therefore accepted for further analysis as they did not exhibit multicollinearity.

4.4. Background Information

4.4.1 Position of Respondent

The study sought to establish the positions held by respondents in family businesses. The respondents were restricted to the CEOs, General Managers or Finance Managers who were considered to be holding the top management position in the firm. The study gathered information on family businesses from the CEOs at 57.6%, General Managers at 22.7% and Finance Managers at 19.7% as shown in Table 4.5. Where the CEO was not available, the General Manager or Finance Manager was able to respond to the research questionnaire. This showed that family businesses had their top management either as family or hired CEOs, General Managers of Finance Managers. Thus, pertinent information was obtained for the purpose of the study.

Table 4.5: Position in the Business

Position	Frequency	Percentage
Chief Executive Officer	178	57.6
General Manager	70	22.7
Finance Manager	61	19.7
Total	**309**	**100**

4.4.2 Gender of Respondents

Apart from the positions held, the study also tried to establish the gender of the respondents. The response from male accounted for 86.4% while that of female were only about 13.6%. This results shown in Table 4.6 reflect the typical family businesses where male are the majority compared to female counterparts in running and managing family businesses. This implies that most family businesses are run and/or managed by male as head of the families.

Table 4.6: Gender of Respondents

Gender	Frequency	Percentage
Male	267	86.4
Female	42	13.6
Total	**309**	**100**

4.4.3 Age of Respondents

The study sought to establish the ages of the respondents. Since majority of the respondents were CEOs (that is, 57.6%) as shown on Table 4.5, the study also established their ages such that majority of the respondents (who were the CEOs) of the family businesses were aged between 30 and 39 years at 40.8% as indicated in Table 4.7. Very few respondents were either above the retirement age of 60 years or below the

age of 29 years. This implies that majority of family businesses are run by active middle-aged personnel who may either be family or non-family members.

Table 4.7: Age of Respondents

Age of Respondent	Frequency	Percentage
Below 20 years	1	0.3
20-29 years	20	6.5
30-39 years	126	40.8
40-49 years	102	33.0
50-59 years	44	14.2
Above 60 years	16	5.2
Total	**309**	**100**

4.4.4 Form of Education

It was important to establish the form of education obtained by the respondents. The study found that majority of the respondents who held top management positions in family businesses had formal education accounting for 96.4% as indicated in Table 4.8. This implies that, family businesses are run by managers who have obtained formal education to assist in running and managing the businesses.

Table 4.8: Education

Education	Frequency	Percentage
Formal	298	96.4
Informal	11	3.6
Total	**309**	**100**

4.4.5 Formal Education

Of the formal education obtained, the research sought to differentiate between financial education and non-financial. It was established that among the respondents that had formal education, majority of them representing 78.6%, had financial formal education as indicated in Table 4.9. This implies that family businesses engaged personnel with basic financial education in managing their business operations. Non-financial form of education represented general management, engineering, transport and logistics, as areas of specialization undertaken by the managers.

Table 4.9: Formal Education

Formal Education	Frequency	Percentage
Financial	243	78.6
Non-financial	66	21.4
Total	**309**	**100**

4.4.6 Education Level Achieved

The study, further tried to find out the level of education the respondents achieved. Having established that majority had financial education, it was important to establish the level from which this form of education level was achieved. Table 4.10 shows that respondents with the highest percentage at 52.1% had obtained Bachelor's degrees. It was also observed that 23.6% of the respondents had basic financial education and obtained professional certifications such as CPA (K) and ACCA certificates from colleges.

Table 4.10: Level of Education

Education Level	Frequency	Percentage
High school	13	4.2
College	73	23.6
Bachelor's degree	161	52.1
Master's degree	59	19.1
Ph.D.	3	1
Total	309	100

A few of the respondents, however, indicated they had a postgraduate qualification (that is, Masters and Doctorate degrees). This implies that majority of family businesses in the study area had their human resources who have acquired basic financial education from colleges and universities. Very few respondents (that is, 4.2% of the respondents) did not take up any formal education after high school.

4.4.7 Type of Business

The study sought to establish the type of business family firms are licensed and registered. It was noted that majority of the family businesses in the study area, as shown in Table 4.11, were registered as private limited liability companies representing 65.4%, while those registered and operating as sole proprietorship accounted for 21.3%. Few family businesses in the study area were registered as private partnership and general partnership businesses representing 6.5% and 6.8% respectively. This implies that majority of family businesses in the study area are operated and managed as formal entity, while those family businesses operating as sole proprietorship are mostly run as small businesses and managed as a one-man show or very few members (not more than 5 employees).

Table 4.11: Type of Business

Business Type	Frequency	Percentage
Private Limited Liability Company	202	65.4
Private Partnership Company	20	6.5
General Partnership	21	6.8
Sole proprietorship	66	21.3
Total	**309**	**100**

4.4.8 Kind of Business

The study sought to establish the kind of business in terms of management. Table 4.11 shows that majority of the family businesses were registered as private limited liability company and the observation made was such businesses were run and managed as formal entity. Table 4.12 shows the kind of businesses such that majority of the family businesses in the study area were owned and managed by family members representing 83.8% and very few businesses were family owned but not managed by family members, representing 16.2%. This indicates that apart from ownership, family members are highly engaged in the management of these family businesses. Few family businesses were managed by non-family members due to lack of expertise knowledge in running and managing their enterprise.

Table 4.12: Kind of Business

Kind of Business	Frequency	Percentage
Family business, Owned and managed	259	83.8
Family business, Owned, but not managed	50	16.2
Total	**309**	**100**

4.4.9 Age of Business

The study sought to determine the age of family businesses in the study area. It was found out that majority of family businesses as shown in Table 4.13, were in operation for more than 10 years, representing 62.8% of the family businesses in the study area. About 26.9% of family businesses were more than 5 years but less than 10 years old since inception. Few businesses were still new and have been in operation for less than 5 years accounting for less than 11%. It was noted that family businesses have been in existence for more than a decade while still new businesses are coming up and growing with time.

Table 4.13: Age of Business

Business Age	Frequency	Percentage
Below 3 years	2	.6
Between 3 – 5 years	30	9.7
Between 6 – 10 years	83	26.9
Above 10 years	194	62.8
Total	**309**	**100**

4.4.10Number of Employees

Apart from determining the age of the family businesses, the study sought out to determine the number of employees working for the family businesses. Table 4.14 shows that majority of the family businesses had employee numbers between 21 and 50, representing 31.7% of the family businesses, while others had less than 20 employees accounting for 29.1% under the study. About 25.6% of the family businesses had less than 100 employees but above 50, and less than 10% of the family businesses had employed more than 100. This implies that the nature of family businesses are small in terms of number of employees.

Table 4.14: Number of Employees

Employee Numbers	Frequency	Percentage
Below 20	90	29.1
Between 21 – 50	98	31.7
Between 51 – 100	79	25.6
Between 101 – 200	24	7.8
Above 200	18	5.8
Total	**309**	**100**

4.4.11Business Sales

It was important for the study to establish the sales generated by the family businesses to determine the overall objective of the study, that is,. growth of family businesses.

Table 4.15: Business Sales (in Kenya Shillings per Month)

Sales	Frequency	Percentage
Below 250,000	30	9.7
Between 251,000 – 500,000	57	18.4
Between 500,001 – 750,000	25	8.1
Between 750,001 – 1,000,000	83	26.9
Above 1,000,000	114	36.9
Total	**309**	**100**

As indicated in Table 4.15, majority of family businesses under the study were generating business sales of more than 1 million Kenya shillings, representing 36.9%. Few family businesses indicated their sales to be above half million but less than 750,000 Kenya shillings. Other family businesses accounting for 26.9%, were able to generate business sales of less than 500,000 but more than 250,000 Kenya shillings.

Less than 10% indicated business sales to be less than 250,000 Kenya shillings. This implies that, family businesses are able to generate good monthly sales for various reasons, among them, is being in existence for longer period and operating more than one business industry as they seek to diversify and grow their businesses.

4.5 Growth of Family Businesses Results

The study sought to determine the influence of financial management practices on the growth of family businesses in Kenya. Financial management practices in this study were financial literacy, financing, allocation of financial resources and cash management.

4.5.1 Sample Adequacy Results on Growth

To measure the suitability of the data for factor analysis, Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was used to measure the sample adequacy of each variable in the model. Ali *et al*. (2016), showed that the KMO index ranges from 0 to 1, with 0.5 and above considered suitable for factor analysis. The Bartlett's Test of Sphericity should be significant at $p<0.05$ for factor analysis to be suitable.

Table 4.16: KMO and Bartlett's Test for Growth

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.843
Bartlett's Test of Sphericity	Approx. Chi-Square	1641.752
	Df	28
	Sig.	.000

From Table 4.16, the KMO measure of sampling adequacy results is 0.843. This indicates that factor analysis could be carried out as the KMO index was between 0 and 1. The Bartlett's test of Sphericity result is 0.000 which was within the acceptable level to test for significance and validity of the data. Rusuli, Tasmin, Takala, and Norazlin,

(2013), explained that Measure of Sampling Adequacy should exceed 0.5 and for Bartlett's test of Sphericity the significant level of p at less than 0.05.

4.5.2 Factor Analysis Results of Growth

The broad purpose of factor analysis is to summarize data so that relationships and patterns can easily be interpreted and understood. It is normally used to regroup variables into a limited set of clusters based on shared variance (Yong & Pearce, 2013).

Table 4.17: Growth Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.424	55.296	55.296	4.424	55.296	55.296
2	1.640	20.501	75.797	1.640	20.501	75.797
3	.623	7.788	83.585			
4	.415	5.190	88.775			
5	.265	3.307	92.083			
6	.251	3.142	95.224			
7	.192	2.396	97.620			
8	.190	2.380	100.000			

Extraction Method: Principal Component Analysis.

Factor analysis was done on growth variables where constructs were subjected to a variance test through the principal component analysis test. The principal component analysis was thus used for data reduction and interpretation of large set of data. All the measures of growth were subjected to factor analysis and the results showed that there were two factors extracted explaining the growth of family businesses which accumulated to 75.797% of the total variance in this construct. Factor one was the highest with 55.296%, while factor two had 20.501%. These two factors had their Eigen values greater than 1 and had the greatest influence on the growth of family businesses as they explain about 75.797% of the total variance as shown in Table 4.17.

4.5.3 Growth Rotation Component Matrix Results

Table 4.18 depicts the rotated component factor loadings for determinants of growth measures. Component 1 was Revenues which had the four constructs and Component2 was Change in net-worth which had four constructs.

Table 4.18: Rotated Component Matrix

Opinion Statement	Component	
	REV	CNW
1. Revenues from the operations have been increasing every year.	.875	
2. Increased revenues from the firm is a result of proper financial management practices.	.847	
3. Revenues from the firm are re-invested for growth purposes.	.897	
4. Ploughing back of income has resulted in the growth of the family business.	.784	
5. Family firms increase its value by investing more in long-term assets.		.830
6. Family businesses prefer less debt in order to increase net value or the firm.		.883
7. Family firms' net worth has been increasing as the firm experiences stable growth.		.904
8. Business growth has been as a result of proper financial management practices undertaken by the firm.		.680

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 3 iterations.
KEY: REV = Revenues, CNW = Change in net worth

All the variables of growth had a factor loading of higher than 0.4 as shown in Table 4.18. Rusuli *et al*. (2013), showed that each individual variable must have value of 0.4 and above. Therefore, the component values indicate that they are highly interrelated with each other (rotated component analysis illustrated in Appendix III).

4.5.4 Descriptive Results of Growth

Growth was assessed by two measures namely, revenues and firm's net-worth. Descriptive data shown on Table 4.19 presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.19: Descriptive Results of Growth

Variable	Mean	Std. Deviation	Cronbach's Alpha
Revenues	4.2201	.44435	.887
Change in Net-worth	4.1942	.39529	.865
KEY: Scale**1**= Strongly Disagree and **5** = Strongly Agree, Overall mean = 4.2072, Overall Cronbach's Alpha = 0.879			

Cronbach's alpha was used to test the reliability of the proposed constructs (Ali *et al*., 2016). The findings indicated that revenues had a coefficient of 0.887 while change in net worth had a coefficient of 0.865. Growth measures (revenues and change in net worth) depicted Cronbach's alpha of 0.879 which above the suggested value of 0.7 hence the study was reliable.

It was observed that the revenues from business operations have been increasing every year and that such revenues are re-invested back to the business to achieve growth as indicated by mean score of 4.22. This finding is supported by De Voe and Iyengar (2009) that availability of resources (revenues) is a crucial requirement for long term investment in family businesses for realization of long-term goals.

It was also noted that the increased revenues was as a result of proper financial management practices undertaken by the family firms. As revenues increase and re-invested (ploughing) back to the business, resulted in the growth of family businesses. These findings are in line with study by Phillips (2012) that family firms aim at long-term value maximization rather than just grow revenues on a short-term basis to satisfy shareholders. Findings were also supported by Alfred and Xiao (2013) that main source of capital for family firms are retained earnings and that family firms report higher sales growth and greater improvement in net margins for family firms compared with non-family firms.

It was noted that, as much as the business operations were financed by debt, family businesses preferred less debt in order to increase net value (net-worth) of the firm hence family firm's net worth has been increasing as the firm experiences stable growth, as indicated by mean score of 4.47. This finding was supported by Lakew and Rao (2009) who point out that leverage improves financial performance hence growth of family firms. Findings also supported by Phillips (2012) that family businesses use retained profits rather than loan capital for business growth.

It was also established that business growth has been as a result of proper financial management practices undertaken by family firms. These findings were supported by Waweru and Ngugi (2014) that proper financial management practices influenced performance and growth of firms. Consistent with these findings, Turyahebwa (2013) asserts that an important factor to the growth and survival of a business is external financing that increases firm's net worth.

4.6 Family Characteristics Results

The study sought to determine the moderating effect of family characteristic on the growth of family businesses in Kenya. It was therefore important to establish the effect of the moderating variable on each of the independent variable measures, that is, financial literacy, financing, allocation of financial resources and cash management, as financial management factors affecting growth of family businesses.

4.6.1 Sample Adequacy Results on Family Characteristics

The KMO and Bartlett's tests were used to test the correlation between family characteristics variables. The KMO measure of sample adequacy results is 0.849 as shown in Table 4.20. This value indicates good partial correlation exhibited in the data for this study.

Table 4.20: KMO and Bartlett's Test for Family Characteristics

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.849
Bartlett's Test of Sphericity	Approx. Chi-Square	3663.688
	Df	45
	Sig.	.000

Ali *et al*. (2016), pointed out that the KMO index ranges from 0 to 1, with 0.5 and above considered suitable for factor analysis. The Bartlett's Test of Sphericity should be significant at $p<0.05$ for factor analysis to be suitable. The Bartlett's Test of Sphericity was used at significant level of $p <0.05$ to confirm sufficient correlation among the family characteristics variables. The Bartlett's Test of Sphericity result is 0.000 which shows high significance. Rusuli *et al*. 2013, explained that Measure of Sampling Adequacy should exceed 0.5 and for Bartlett's test of Sphericity the significant level of p at less than 0.05.

4.6.2 Family Characteristics Data Normality Test Results

Normality was used to test for significance and construction of confidence interval estimates of the parameters. The assumption is that the variables are normally distributed. In their study, Ali *et al*. (2016), showed that the assumptions and application of statistical tools as well as suitability of the tests were important aspects for statistical analysis. To check for normality, the study adopted the Skewness and Kurtosis test and Auto correlation test.

a) Skewness and Kurtosis Test Results

Measures of skewness is based on mean and median while kurtosis measures the peaked-ness of the curve of the frequency distribution (Kothari & Garg, 2014). The results presented in Table 4.21 show that a skewness coefficient of 0.035 and kurtosis coefficient of -0.662. Based on these results, it was concluded that data was normally distributed since their statistic values were between -1 and +1.

Table 4.21: Skewness and Kurtosis

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Family Characteristics	309	.035	.139	-.662	.276

b) Durbin-Watson Test Results

A high degree of correlation among residuals of the regressions' data sets may produce inefficient results. As such, the presence of serial correlation among the OLS regressions is checked using Durbin and Watson's test statistic (Yupitun, 2008).

Table 4.22: Durbin-Watson (Autocorrelation) Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.551[a]	.303	.296	.63935	1.905

a. Predictors: (Constant), Economic Values, Family Size, Education Characteristics
b. Dependent Variable: Growth

Durbin-Watson statistic ranges in value from 0 to 4 with an ideal value of 2 indicating that errors are not correlated, although values from 1.75 to 2.25 may be considered

acceptable. Some authors consider Durbin-Watson value between 1.5 and 2.5 as acceptable level indicating no presence of collinearity (Makori & Jagongo, 2013). Durbin-Watson value of 1.905 indicates that the model did not suffer from autocorrelation.

4.6.3 Factor Analysis Results of Family Characteristics

The study sought to determine the moderating effect of family characteristics on the financial management practices and growth of family businesses in Kenya. Family characteristics was assessed by three measures namely; family size, education characteristics and economic values and ten constructs were tested for factor analysis.

Table 4.23: Family Characteristics Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.975	69.747	69.747	6.975	69.747	69.747
2	.801	8.014	77.761			
3	.705	7.050	84.811			
4	.573	5.732	90.542			
5	.334	3.342	93.884			
6	.238	2.383	96.267			
7	.180	1.803	98.070			
8	.113	1.132	99.202			
9	.044	.436	99.637			
10	.036	.363	100.000			

Extraction Method: Principal Component Analysis.

Through factor analysis, one factor was identified to have the biggest influence on family characteristics with cumulative variance of 69.747%. This factor had an Eigen value greater than 1 and had the greatest influence on family characteristics, explaining about 69.747% of variance on the growth (revenues and change in net-worth) of family businesses as shown in Table 4.23. Therefore, the component identified to have the

highest influence is regarded as the ability of family members to understand and manage the financial management matters of the familybusinesses.

4.6.4 Family Characteristics Component Matrix Results

The moderating variable, family characteristics, had three measures namely; family size which had three constructs, education characteristics which had four constructs and economic values which had three constructs. All the family characteristics variables had a factor loading of higher than 0.4 and represented as Component 1 as shown in Table 4.24.

Table 4.24: Family Characteristics Component Matrix

Opinion Statement	Component 1
1. The family has active members in management of business activities.	.791
2. The family network to focus activities on information provision for family business growth.	.857
3. Family forums are essential in coming up with policies on business operations.	.887
4. Family members have attained basic formal education.	.869
5. Informal education (on the job training) is also important in running the family business.	.797
6. Family members who have financial education provide better financial decisions to be undertaken.	.894
7. Family members who attained formal education are fully engaged in managing the firm activities.	.781
8. Family members are business-minded and entrepreneurial.	.757
9. Family members have strong capabilities for managing wealth in order to achieve growth.	.841
10. Family members seek steady long-term growth to avoid risking family's wealth.	.865

Extraction Method: Principal Component Analysis.

Therefore, the component values of family characteristics indicate that they are highly interrelated with each other and affect the financial activities and growth of family businesses hence referred to as family financial management competency(FFMC) in this study.

4.6.5 Descriptive Results of Family Characteristics

Family characteristics was assessed by three measures namely; family size, education characteristics and economic values that are referred to as family financial management competency in this study.

Table 4.25: Family Characteristics Descriptive Results

Variable	N	Mean	Std. Deviation	Cronbach's Alpha
Family Size	309	4.3042	.59901	.836
Education Characteristics	309	4.4962	.47187	.888
Economic Values	309	4.4296	.55327	.838

KEY: Scale**1**= Strongly Disagree and **5** = Strongly Agree, Overall mean = 4.41, Overall Cronbach's Alpha = 0.937

Descriptive data shown on Table 4.25 presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Cronbach's alpha was used to test the reliability of the proposed constructs (Ali *et al*., 2016). The findings indicated that family size measures had a coefficient of 0.836, education characteristics measures had a coefficient of 0.888, while that of economic value measures had a coefficient of 0.838. Family characteristics (family financial management competency) depicted Cronbach's alpha of 0.937 which above the suggested value of 0.7 hence the study was reliable.

The family characteristics measures were identified as the ability of family members to understand and manage the financial matters of the family businesses (family financial management competency).

It was observed that families have active members in managing business activities and that family members network in order to obtain and provide relevant business information, and as such, families also have forums that are essential in coming up with business strategies and policies for their businesses. These findings were supported by Gulzar and Wang (2010) who point out that family firms are characterized by one or more families who are linked by close affinity or solid alliances to enable them make decisions regarding their businesses. Findings are also consistent with study by Bennedsen *et al*. (2010) that family characteristics, such as family size and resources, have an important impact on firm's outcome. However, these findings were in conflict with study by Wee and Ibrahim (2012) that there is an intersection between family members, the family and the business, where the intersection also represents a source of conflict within the family and within the business due to disagreements over growth targets, marital differences or succession.

Most family members had attained basic formal financial or non-financial education and that informal education (on the job training) was also acquired and equally important in running of such family businesses. Family members who had formal financial education had better financial understanding (financial management competency) and provided better financial decision for the business and as such, family members who had any formal education were fully engaged in running and managing the business activities. These findings were supported by Lusardi and Mitchell (2014) who show how people acquire and deploy financial education and the link between financial knowledge, savings and investment behaviour. Le Breton-Miller & Miller (2006) also point out that family firms also invest in knowledge capital, corporate culture and business models to achieve business goals.

It was observed that family members were entrepreneurial and business minded, had strong financial competencies and capabilities for managing wealth and sought steady long-term growth to avoid the risk of losing family's wealth. These findings were supported by Gulzar and Wang (2010) that each family has its unique ethics, values, unwritten rules and communication methods. As the family structure shrinks or expands, the company also changes. These findings were also supported by Lusardi and Mitchell (2014) where they pointed out the effects of financial literacy on economic decision making.

4.6.6 Family Characteristics Correlations Results

Correlation analysis was used to establish the strength and nature of the relationship between family characteristics measures of family size, education characteristics and economic values (family financial management competency)and growth (in terms of revenues and change in net-worth) of family businesses in Kenya.

Table 4.26 shows correlation matrix showing the correlation analysis with varied degree of interrelationship between family characteristics (family financial management competency) and the growth of family businesses.

Table 4.26: Family Characteristics Correlation Results

Variable		FS	EC	EV	REV	CNW
Family Size (FS)	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	309				
Education Characteristics (ED)	Pearson Correlation	.817**	1			
	Sig. (2-tailed)	.000				
	N	309	309			
Economic Values (EV)	Pearson Correlation	.818**	.824**	1		
	Sig. (2-tailed)	.000	.000			
	N	309	309	309		
Revenues (REV)	Pearson Correlation	.311**	.386**	.282**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	309	309	309	616	
Change in Net - Worth (CNW)	Pearson Correlation	.351**	.526**	.493**	.464**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	309	309	309	309	309

**. Correlation is significant at the 0.01 level (2-tailed).
KEY: FS = Family Size, EC = Education Characteristics, EV = Economic Value, REV = Revenues, CNW = Change in Net-worth

The Pearson correlation coefficient was generated at 0.01 significance level (2-tailed). The output indicates a strong positive relationship between family financial management competency and revenues of family businesses in Kenya, p =0.000. The p-value<0.01, significant at 0.01 level as the correlation matrix indicates. Financial literacy is therefore a very important factor in the growth of family businesses. This is supported by Bunyasi *et al*., (2014) where they showed that access to business information has a positive influence on the growth of businesses.

4.6.7 Family Characteristics Goodness-of-fit Model Results

The results on Table 4.27 showed that family characteristics (family financial management competency) had explanatory power on the revenues of family businesses as it accounted for 15.4% of its variability (R Square = 0.154). Family characteristics (family financial management competency) as a variable on its own implies a low positive relationship with revenues of family businesses.

Table 4.27: Family Characteristics Model Summary on Revenues

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.392[a]	.154	.145	.63935

a. Predictors: (Constant), Economic Values, Family Size, Education Characteristics
b. Dependent Variable: Revenues

The results on Table 4.28 showed that family characteristics (family financial management competency) had explanatory power on the change in net-worth of family businesses as it accounted for 32.9% of its variability (R Square = 0.329) hence the model is a good fit for the data. Family characteristics (family financial management competency) as a variable on its own implies a moderate positive relationship with change in net-worth of family businesses.

Table 4.28: Family Characteristics Model Summary on Change in Net-worth

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.574[a]	.329	.145	.63935

a. Predictors: (Constant), Economic Values, Family Size, Education Characteristics
b. Dependent Variable: Change in Net-worth

4.6.8 Family Characteristics ANOVA Results

Table 4.29 presents the analysis of variance of the study on family characteristics(family financial management competency) on revenues. The results reveal that a significant relationship exists between family characteristics (family financial management competency) and revenues of family businesses with a p-value of 0.000.

Table 4.29: Family Characteristics ANOVA – Revenue Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8.212	3	2.737	18.471	.000[b]
	Residual	45.198	305	.148		
	Total	53.410	308			

a. Dependent Variable: Revenues
b. Predictors: (Constant), Economic Values, Family Size, Education Characteristics

The P-value is less than 0.05, thus indicating that the predictor variable explain the variation in the dependent variable, which is family financial management competency(family size, education characteristics and economic values) on revenues of family businesses ($F = 18.471$, $p = 0.000$). If significance value of P was larger than 0.05 then the independent variables would not explain the variation in the dependent variable (Lakew & Rao, 2009).

Table 4.30 presents the analysis of variance of the study on family characteristics (family financial management competency) on change in net-worth. The results reveal that a significant relationship exists between family characteristics (family financial management competency) and change in net-worth of family businesses with a p-value of 0.000.

Table 4.30: Family Characteristics ANOVA – Change in Net-worth Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22.756	3	7.585	49.912	.000[b]
	Residual	46.352	305	.152		
	Total	69.108	308			

a. Dependent Variable: Change in net-worth
b. Predictors: (Constant), Economic Values, Family Size, Education Characteristics

The P-value is less than 0.05, thus indicating that the predictor variable explain the variation in the dependent variable which is family financial management competency(family size, education characteristics and economic values) on change in net-worth of family businesses (F = 49.912, p = 0.000). If the significance value of P was larger than 0.05 then the independent variables would not explain the variation in the dependent variable (Lakew & Rao, 2009).

4.6.9 Regression Results of Family Characteristics and Growth Measures

To establish the influence of family characteristics (family financial management competency) on the revenues of family businesses in Kenya, the following null hypothesis was tested:

H_{01}: There is no significant influence of family characteristics(family financial management competency) on thegrowth (in revenues) of family businesses in Kenya.

Regression analysis was conducted to empirically determine whether family characteristics (family financial management competency) had any significant influence on revenues of family businesses in Kenya.

Table 4.31: Regression Coefficients of Family Characteristics and Revenues

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.694	.212		12.708	.000
	Family Size (X_1)	.030	.071	.044	.423	.017
	Education Characteristics (X_2)	.407	.091	.461	4.473	.000
	Economic Values (X_3)	-.101	.078	-.134	-1.295	.018

a. Dependent Variable: Revenues

Table 4.31 displays the regression coefficients results of family characteristics (family financial management competency). Family size (supported by β= 0.044, p-value = 0.017), education characteristics (supported by β=-0.461, p-value = 0.000), and economic values (supported by β= -0.134, p-value = 0.018) are statistically significant in explaining revenues of family businesses in Kenya.

This implied that the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05. The regression model is summarized by equation 4.1.

$$Y = 2.694 + 0.030X_1 + 0.407X_2 - 0.101X_3 \text{ …….. Equation 4.1}$$

Where,

Y – Revenues, X_1 – Family size, X_2 – Education characteristics, and

X_3 – Economic values

It was concluded that there is statistically significant correlation between family financial management competency(family size, education characteristics and economic values) and revenues of family businesses in Kenya. Hence, family characteristics(family financial management competency), has a positive influence on the growth (in revenues) of family businesses in Kenya.

To establish the influence of family characteristics (family financial management competency) onchange in net-worth of family businesses in Kenya, the following null hypothesis was tested:

H_{01}: There is no significant influence of family characteristics (family financial management competency) on the growth (in terms ofchange in net-worth) of family businesses in Kenya.

Regression analysis was conducted to empirically determine whether family financial management competency had any significant influence on change in net-worth of family businesses in Kenya.

Table 4.32 displays the regression coefficients results of family characteristics (family financial management competency). Family size (supported by β = -0.395, p-value = 0.000), education characteristics (supported by β=-0.549, p-value = 0.000), and economic values (supported by β = 0.364, p-value = 0.000) are statistically significant in explaining change in net-worth of family businesses in Kenya.

Table 4.32: Regression Coefficients of Family Characteristics and Change in Net-worth

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.952	.215		9.079	.000
	Family Size (X_1)	-.312	.072	-.395	-4.333	.000
	Education Characteristics (X_2)	.551	.093	.549	5.925	.000
	Economic Values (X_3)	.311	.079	.364	3.937	.000

a. Dependent Variable: Change in net-worth

This implied that the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05. The regression model is summarized by equation 4.2.

$$Y = 1.952 - 0.312X_1 + 0.551X_2 + 0.311X_3 \ldots\ldots\ldots\ldots\ldots\ldots \quad \text{Equation 4.2}$$

Where,

Y – Change in net-worth, X_1 – Family size, X_2 – Education characteristics, and X_3 – Economic values

It was concluded that there is statistically significant correlation between family financial management competency(family size, education characteristics and economic values) and change in net-worth of family businesses in Kenya. Hence, family characteristics(family financial management competency), has a positive influence on the growth (change in net-worth) of family businesses in Kenya.

4.7 Financial Literacy Results

The first objective of the study was to determine the influence of financial literacy on the growth of family businesses in Kenya. This objective was operationalized by three measures namely; financial-economic knowledge, financial analysis capability and access to financial Information and ten constructs were tested for factor analysis.

4.7.1 Sample Adequacy Results of Financial Literacy

The KMO and Bartlett's tests were used to test the correlation between financial literacy variables. The KMO measure of sample adequacy results is 0.846 as shown in Table 4.33.

Table 4.33: KMO and Bartlett's Test for Financial Literacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.846
Bartlett's Test of Sphericity	Approx. Chi-Square	3290.228
	Df	21
	Sig.	.000

This value indicates good partial correlation exhibited in the data for this study. Ali *et al*. (2016), showed that the KMO index ranges from 0 to 1, with 0.5 and above considered suitable for factor analysis. For the Bartlett's Test of Sphericity, p-value should be less than 0.05 for factor analysis to be suitable. The Bartlett's Test of Sphericity was used at significant level of $p<0.05$ to confirm sufficient correlation among the financial literacy variables. The Bartlett's Test of Sphericity result is 0.000 which shows high significance. Rusuli *et al*. (2013), explained that Measure of Sampling Adequacy should exceed 0.5 and for Bartlett's test of Sphericity the p-value should be less than 0.05.

4.7.2 Financial Literacy Data Normality Test Results

Normality was used to test for significance and construction of confidence interval estimates of the parameters. The assumption is that the variables are normally distributed. In their study, Ali *et al*. (2016), showed that the assumptions and application of statistical tools as well as suitability of the tests are important aspects for statistical analysis. To check for normality, the study adopted the Skewness and Kurtosis test and Auto correlation test.

a) Skewness and Kurtosis Test Results

Measures of skewness is based on mean and median while kurtosis measures the peaked-ness of the curve of the frequency distribution (Kothari & Garg, 2014). The results presented in Table 4.34 show that a skewness coefficient of -0.05 and kurtosis coefficient of -0.47. Based on these results, it was concluded that data was normally distributed since their statistic values were between -1 and +1.

Table 4.34: Skewness and Kurtosis

kkk	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Financial Literacy	309	-.050	.139	-.470	.276

b) Durbin-Watson Test Results

A high degree of correlation among residuals of the regressions' data sets may produce inefficient results. As such, the presence of serial correlation among the OLS regressions is checked using Durbin and Watson's test statistic (Yupitun, 2008).

Table 4.35: Durbin-Watson (Autocorrelation) Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.597[a]	.356	.352	.33529	1.947

a. Predictors: (Constant), Access to Financial Information, Financial-economic Knowledge

b. Dependent Variable: Revenues

Durbin-Watson statistic ranges in value from 0 to 4 with an ideal value of 2 indicating that errors are not correlated, although values from 1.75 to 2.25 may be considered acceptable. Some authors consider Durbin-Watson value between 1.5 and 2.5 as acceptable level indicating no presence of collinearity (Makori & Jagongo, 2013). Durbin-Watson value of 1.947 indicates that the model did not suffer from autocorrelation.

4.7.3 Factor Analysis Results of Financial Literacy

The study sought to determine the influence of financial literacy on the growth of family businesses in Kenya. Financial literacy was assessed by three measures namely; financial-economic knowledge, financial analysis capability and access to financial Information and ten constructs were tested for factor analysis.

Through factor analysis, two factors were identified which had the biggest influence on financial literacy with cumulative variance of 93.224%. Factor one was the highest with 74.112% while factor two had 19.113% of total variance. These two factors had their Eigen values greater than 1 and had the greatest influence on financial literacy and explain about 70.836% of variance as shown in Table 4.36.

Table 4.36: Financial Literacy Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.447	74.112	74.112	2.824	47.074	47.074
2	1.147	19.113	93.224	2.769	46.150	93.224
3	.190	3.167	96.392			
4	.150	2.504	98.896			
5	.048	.799	99.695			
6	.018	.305	100.000			

Extraction Method: Principal Component Analysis.

4.7.4 Financial Literacy Rotated Component Matrix Results

Table 4.37 depicts the rotated component factor loadings for determinants of financial literacy measures. Component 1 was Access to Financial Information which had three constructs and Component 2 was Financial-economic Knowledge had three constructs.

Table 4.37: Financial Literacy Rotated Component Matrix

Opinion Statement	Component	
	AFI	FEK
1. Basic financial knowledge provides financial awareness in in managing business finances		.913
2. The ability to understand financial information enables managers to make effective financial decisions		.910
3. Family members are called upon for financial advice before making a financial decision.		.916
4. Family members who are good financial managers acquire financial knowledge through formal trainings.	.900	
5. Accessibility to financial knowledge by family members enables the firms to set realistic financial goals.	.938	
6. Financial knowledge acquired has enabled the financial manager to practice financial management functions	.916	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 3 iterations.
KEY: AFI = Access to financial Information, FEK = Financial-economic knowledge

All the variables of financial literacy have a factor loading of higher than 0.4. Therefore, the component values indicate that they are highly interrelated with each other (rotated component analysis as illustrated in Appendix III).

4.7.5 Descriptive Results of Financial Literacy

Financial literacy was assessed by two measures namely financial-economic knowledge and access to financial information. Descriptive data shown on Table 4.38 presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.38: Financial Literacy Descriptive Results

Variable	Mean	Std. Deviation	Cronbach's Alpha
Financial-economic Knowledge	4.2176	.49033	.965
Access to Financial Information	4.4649	.60057	.963
KEY: Scale**1**= Strongly Disagree and **5** = Strongly Agree, Overall mean = 4.3413, Overall Cronbach's Alpha = 0.941			

Cronbach's alpha was used to test the reliability of the proposed constructs (Ali *et al*., 2016). The findings indicated that financial-economic knowledge had a coefficient of 0.965 while access to financial information had a coefficient of 0.963. Financial literacy measures (financial economic-knowledge and access to financial information) depicted Cronbach's alpha of 0.941 which is above the suggested value of 0.7 hence the study was reliable.

It was established that basic financial knowledge acquired from higher learning institutions provides financial awareness in managing family business finances and that family members had the ability to understand financial information, enabling them to make sound financial decisions as indicated by mean score of 4.22. These findings were consistent with Lusardi and Mitchell (2014) that there are substantial differences in financial knowledge by education specifically those without a college education are much less likely to be knowledgeable about basic financial literacy concepts. Family business owners and managers pursue financial studies that enables them understand more about financial matters of the business.

It was also established that family members who had formal financial education were called upon for financial advice to support financial decisions to be made by the business. These findings were consistent with study by Awais *et al*. (2016) and Njoroge and Ondigo (2013) where they assert that financial literacy is the ability to use knowledge and skills to manage financial resources effectively.

It was observed that family members acquired their formal financial education through formal trainings at higher learning institutions and as a result of accessing such financial knowledge, they are able to better understand financial matters and to set realistic financial goals for the family businesses, as indicated by mean score of 4.47. It was also established that financial knowledge enabled the finance managers to carry out the routine financial management functions. This is supported by Bunyasi *et al*. (2014) where they showed that access to business information has a positive influence on the growth of businesses.

4.7.6 Financial Literacy Correlations Results

Correlation analysis was used to establish the strength and nature of the relationship between financial literacy measures, family characteristics(family financial management competency) and growth measures of family businesses in Kenya.

Table 4.39 shows correlation matrix showing the correlation analysis with varied degree of interrelationship between financial-economic knowledge, access to financial information, family financial management competency, and growth (in revenues and change in net worth) of family businesses.

Table 4.39: Financial Literacy Correlation Results

		FEK	AFI	FFMC	REV	CNW
Financial-economic Knowledge (FEK)	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	309				
Access to Financial Information (AFI)	Pearson Correlation	.623**	1			
	Sig. (2-tailed)	.000				
	N	309	309			
Family Financial Management Competency(FFMC)	Pearson Correlation	.357**	.373**	1		
	Sig. (2-tailed)	.000	.000			
	N	309	309	309		
Revenues (REV)	Pearson Correlation	.589**	.440**	.344**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	309	309	309	616	
Change in Net Worth (CNW)	Pearson Correlation	.447**	.668**	.480**	.464**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	309	309	309	309	309

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

KEY: FEK = Financial-economic knowledge, AFI = Access to financial information, FFMC = Family Financial Management Competency, REV = Revenues, CNW = Change in net worth

The Pearson correlation coefficient was generated at 0.01 significance level (2-tailed). The output indicates a strong positive relationship between financial literacy measures (financial-economic knowledge and access to financial information), family financial management competency and growth (in revenues and change in net-worth) of family businesses in Kenya, p =0.000. The p-value<0.01, significant at 0.01 level as the correlation matrix indicates.

There is a strong relationship between financial-economic knowledge and access to financial information and revenues of family businesses (Financial-economic knowledge, ρ = 0.589 and access to financial information, ρ = 0.440). A strong relationship also exists between financial-economic knowledge and access to financial information and change in net worth of family businesses (Financial-economic knowledge, ρ = 0.447 and access to financial information, ρ = 0.668).

Therefore, the financial literacy measures (financial-economic knowledge and access to financial information) are very important factors in the growth (in revenues and change in net worth) of family businesses. This is supported by Bunyasi *et al*. (2014) where they showed that access to business information has a positive influence on the growth of businesses.

4.7.7 Financial Literacy Goodness-of-fit Model Results

The results on Table 4.40 showed that financial literacy measures (financial-economic knowledge and access to financial information) had explanatory power on the revenues of family businesses as it accounted for 35.6% of its variability (R Square = 0.356) on Model 1, hence the model is a good fit for the data. This implies that there is a moderate positive relationship between financial literacy measures (financial-economic knowledge and access to financial information) and revenues of family businesses.

Table 4.40: Financial Literacy Model Summary on Revenues

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.597[a]	.356	.352	.33529
2	.595[b]	.354	.350	.33572

a. Predictors: (Constant), Access to Financial Information, Financial-economic Knowledge

b. Predictors: (Constant), Access to Financial Information_ Family Financial Management Competency, Financial-economic Knowledge_ Family Financial Management Competency

c. Dependent Variable: Revenues

On Model 2, the explanatory power of financial literacy measures (financial-economic knowledge and access to financial information) did not change significantly when the moderator family financial management competency was incorporated into the model (R Square = 0.354) hence the model is a good fit for the data. This implies that the moderating variable, family financial management competency had not weakened the relationship between financial literacy measures (financial-economic knowledge and access to financial information) and revenues of family businesses.

Table 4.41: Financial Literacy Model Summary on Change in Net-worth

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.669[a]	.448	.444	.35315
2	.665[b]	.442	.438	.35510

a. Predictors: (Constant), Access to Financial Information, Financial-economic Knowledge

b. Predictors: (Constant), Access to Financial Information_Family Financial Management Competency, Financial-economic knowledge_Family Financial Management Competency

c. Dependent Variable: Change in Net-worth

The results on Table 4.41 showed that financial literacy measures (financial-economic knowledge and access to financial information) had explanatory power on change in net-worth of family businesses as it accounted for 44.8% of its variability (R Square = 0.448) on Model 1, hence the model is a good fit for the data. This implies that there is a moderate positive relationship between financial literacy measures (financial-economic knowledge and access to financial information) and change in net-worth of family businesses.

On Model 2, the explanatory power of financial literacy measures (financial-economic knowledge and access to financial information) did not change when family financial management competency was incorporated into the model (R Square = 0.442) hence the model is a good fit for the data. This implies that the moderating variable, family financial management competency had not weakened the relationship between financial literacy measures (financial-economic knowledge and access to financial information) and change in net-worth of family businesses.

4.7.8 Financial Literacy ANOVA Results

Table 4.42 presents the analysis of variance of the study on financial literacy measures (financial-economic knowledge and access to financial information) and revenues of family businesses. The results reveal that a significant relationship exists between financial economic-knowledge, access to financial information and revenues of family businesses ($F = 84.548$, $p = 0.000$) as indicated in Model 1.

Table 4.42: Financial Literacy ANOVA– Revenues Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.010	2	9.505	84.548	.000[b]
	Residual	34.400	306	.112		
	Total	53.410	308			
2	Regression	18.922	2	9.461	83.945	.000[c]
	Residual	34.488	306	.113		
	Total	53.410	308			

a. Dependent Variable: Revenues

b. Predictors: (Constant), Access to Financial Information, Financial economic Knowledge

c. Predictors: (Constant),Access to Financial Information_Family Financial Management Competency, Financial economic Knowledge_Family Financial Management Competency

When moderating variable, family characteristics(that is, family financial management competency) was incorporated, the p-value is less than 0.05 as indicated in Model 2. This still indicates a significant relationship between the financial literacy measures (financial-economic knowledge and access to financial information) and revenues of family businesses. P-value for both models is less than 0.05, thus indicating that the predictor variables explain the variation in the dependent variable which is financial-economic knowledge and access to financial information on revenues of family businesses.

From the significance value, the measures of financial literacy (financial-economic knowledge and access to financial information) are indeed different from each other and they affect the revenues of family businesses in a different manner. If the significance value of P was larger than 0.05 then the independent variables would not explain the variation in the dependent variable (Lakew & Rao, 2009).

Table 4.43: Financial Literacy ANOVA – Change in Net-worth Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	30.945	2	15.472	124.058	.000[b]
	Residual	38.164	306	.125		
	Total	69.108	308			
2	Regression	30.523	2	15.262	121.033	.000[c]
	Residual	38.585	306	.126		
	Total	69.108	308			

a. Dependent Variable: Change in net-worth

b. Predictors: (Constant), Access to Financial Information, Financial economic Knowledge

c. Predictors: (Constant),Access to Financial Information_Family Financial Management Competency, Financial economic knowledge_Family Financial Management Competency

Table 4.43 presents the analysis of variance of the study on financial literacy measures (financial-economic knowledge and access to financial information) and change in net-worth of family businesses. The results reveal that a significant relationship exists between financial economic-knowledge, access to financial information and change in net-worth of family businesses ($F = 124.058$, $p = 0.000$) as indicated in Model 1.

When moderating variable, family characteristics (that is, family financial management competency) was incorporated, the p-value is less than 0.05 as indicated in Model 2. This still indicates a significant relationship between the financial literacy measures (financial-economic knowledge and access to financial information) and change in net-worth of family businesses. P-value for both models is less than 0.05, thus indicating that the predictor variables explain the variation in the dependent variable which is financial-economic knowledge and access to financial information on change in net-worth of family businesses.

From the significance value, the measures of financial literacy (financial-economic knowledge and access to financial information) are indeed different from each other and they affect the change in net-worth of family businesses in a different manner. If the significance value of P was larger than 0.05 then the independent variables would not explain the variation in the dependent variable (Lakew & Rao, 2009).

4.7.9 Regression Results of Financial Literacy and Revenues

To establish the influence of financial literacy measures, that is, financial-economic knowledge and access to financial information, on the growth (in revenues) of family businesses in Kenya, the following null hypothesis was tested:

H_{01}: There is no significant influence of financial literacy on the growth (in revenues) of family businesses in Kenya.

Regression analysis was conducted to empirically determine whether financial literacy measures (financial-economic knowledge and access to financial information) had significant influence on the revenues of family businesses in Kenya.

Table 4.44: Regression Coefficients of Financial Literacy and Revenues

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.993	.173		11.520	.000
	Financial economic Knowledge (X_1)	.438	.050	.516	8.760	.000
	Access to Financial Information (X_2)	.082	.041	.119	2.000	.044

a. Dependent Variable: Revenues

Table 4.44 displays the regression coefficients results of the financial literacy measures (that is, financial-economic knowledge and access to financial information). Financial-economic knowledge (supported by β=0.516, p-value = 0.000) and access to financial information (supported by β=0.119, p-value = 0.000) are statistically significant in explaining revenues of family businesses in Kenya.

The influence of financial literacy measures (financial economic-knowledge and access to financial information) is therefore significant indicating that the greater the levels of financial literacy by family business members, the greater the revenues generated from their businesses. Thus, higher levels of financial literacy among family businesses managers are associated with increased growth of family businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05. The regression model is summarized as shown by equation 4.3.

$$Y = 1.993 + 0.438X_1 + 0.082X_2 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad \text{Equation 4.3}$$

Where,

Y – Revenues, X_1 – Financial-economic knowledge, and X_2 – Access to financial information.

To determine the moderation effect of family characteristics (family financial management competency) on financial literacy measures (financial-economic knowledge and access to financial information)and revenues of family businesses, the following null hypothesis was tested:

H_{01}: There is no significant moderating effect of family characteristics (family financial management competency) on financial management practices (financial literacy) and revenues of family businesses in Kenya.

Moderated regression analysis was conducted to empirically determine whether financial literacy measures (financial-economic knowledge and access to financial information) moderated with family financial management competency had any significant influence on the revenues of family businesses in Kenya.

Table 4.45: Moderated Regression Coefficients of Financial Literacy and Revenues

Model	Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.190	.019		220.526	.000
	Financial economic Knowledge (X_1)	.438	.050	.516	8.760	.000
	Access to Financial Information (X_2)	.082	.041	.119	2.001	.044
	Financial economic Knowlege_Family Financial Management Competency (X_1Z)	.046	.005	.503	9.201	.000
	Access to Financial Information_Family Financial Management Competency (X_2Z)	.011	.005	.136	2.200	.020

a. Dependent Variable: Revenues

Table 4.45 displays the regression coefficients results of the moderated financial literacy measures (financial-economic knowledge and access to financial information). The interaction variable between financial-economic knowledge and family characteristics (family financial management competency) has a p-value of 0.000 ($p<0.05$), while the interaction between access to financial information and family characteristics (that is, family financial management competency) has a p-value of 0.020 (p-value<0.05).

This implies that the moderating variable, family characteristics (family financial management competency), has significant moderating effect on financial literacy measures (financial-economic knowledge and access to financial information) and revenues of family businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05. The moderated regression model is summarized by equation 4.4.

$$Y = 4.190 + 0.438X_1 + 0.082X_2 + 0.046X_1Z + 0.011X_2Z\ldots \quad \text{Equation 4.4}$$

Where,

Y = Revenues, X_1 – Financial-economic knowledge, X_2 – Access to Financial Information, X_1Z – Financial-economic Knowledge_Family Financial Management Competency, and X_2Z – Access to Financial Information_Family Financial Management Competency

It was concluded that there is statistically significant relationship between financial literacy measures (financial-economic knowledge and access to financial information) and revenues of family businesses in Kenya. There is statistically significant moderation effect of family characteristics (family financial management competency) on the financial literacy measures (financial-economic knowledge and access to financial information and revenues of family businesses. Thus, higher levels of financial literacy among family businesses managers are associated with increased growth of family businesses in Kenya.

4.7.10 Regression Results of Financial Literacy and Change in Net Worth

To establish the influence of financial literacy measures (financial-economic knowledge and access to financial information), on the growth measures (change in net-worth) of family businesses in Kenya, the following null hypothesis was tested:

H_{01}: There is no significant influence of financial literacy on the growth (change in net-worth) of family businesses in Kenya.

Regression analysis was conducted to empirically determine whether financial literacy measures (financial-economic knowledge and access to financial information) had significant influence on the change in net-worth of family businesses in Kenya.

Table 4.46: Regression Coefficients of Financial Literacy and Change in Net-worth

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.018	.182		11.088	.000
	Financial economic Knowledge (X_1)	.048	.052	.050	.923	.046
	Access to Financial Information (X_2)	.502	.043	.637	11.674	.000

a. Dependent Variable: Change in Net-worth

Table 4.46 displays the regression coefficients results of the financial literacy measures (that is, financial-economic knowledge and access to financial information). Financial-economic knowledge (supported by β=0.050, p-value = 0.046) and access to financial information (supported by β=0.637, p-value = 0.000) are statistically significant in explaining change in net-worth of family businesses in Kenya.

The influence of financial literacy measures (financial economic-knowledge and access to financial information) is therefore significant indicating that the greater the levels of financial literacy by family business members, the greater the change in net-worth generated from their businesses. Thus, higher levels of financial literacy among family businesses managers are associated with increased growth of family businesses.

Therefore, that the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05.The regression model is summarized by equation 4.5.

$$Y = 2.018 + 0.048X_1 + 0.502X_2 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad \text{Equation 4.5}$$

Where,

Y – Change in net-worth, X_1 – Financial-economic knowledge and X_2 – Access to financial information.

To determine the moderation effect of family characteristics (family financial management competency) on financial literacy measures (financial-economic knowledge and access to financial information) and revenues of family businesses, the following null hypothesis was also tested:

H_{01}: There is no significant moderating effect of family characteristics (family financial management competency) on financial management practices (financial literacy) and change in net-worth of family businesses in Kenya.

Moderated regression analysis was conducted to empirically determine whether financial literacy measures (financial-economic knowledge and access to financial information) moderated with family characteristics (family financial management competency) had any significant influence on the change in net-worth of family businesses in Kenya.

Table 4.47 displays the regression coefficients results of the moderated financial literacy measures (financial-economic knowledge and access to financial information). The interaction variable between financial-economic knowledge and family characteristics (family financial management competency) has a p-value of 0.041 ($p<0.05$), while the interaction between access to financial information and family characteristics (family financial management competency) has a p-value of 0.000 (p-value<0.05).

Table 4.47: Moderated Regression Coefficients of Financial Literacy and Change in Net-worth

Model	Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.444	.020		222.201	.000
	Financial economic Knowledge (X_1)	.048	.052	.050	.923	.046
	Access to Financial Information (X_2)	.502	.043	.637	11.674	.000
	Financial economic Knowlege_Family Financial Management Competency(X_1Z)	.003	.006	.028	.501	.041
	Access to Financial Information_Family Financial Management Competency(X_2Z)	.059	.005	.647	11.801	.000

a. Dependent Variable: Change in Net-worth

This implies that the moderating variable, family characteristics (family financial management competency), has significant moderating effect on financial literacy measures (financial-economic knowledge and access to financial information) and change in net-worth of family businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05. The moderated regression model is summarized by equation 4.6.

$$Y = 4.444 + 0.048X_1 + 0.502X_2 + 0.003X_1Z + 0.059X_2Z \ldots \text{Equation 4.6}$$

Where,

Y = Revenues, X_1 – Financial-economic knowledge,X_2 – Access to financial information, X_1Z – Financial-economic Knowledge_Family Financial Management Competency, and X_2Z – Access to Financial Information_Family Financial Management Competency

It was concluded that there is statistically significant relationship between financial literacy measures (financial-economic knowledge and access to financial information) and change in net-worth of family businesses in Kenya. There is statistically significant moderation effect of family characteristics (family financial management competency) on the financial literacy measures (financial-economic knowledge and access to financial information and change in net-worth of family businesses. Thus, higher levels of financial literacy among family businesses managers are associated with increased growth of family businesses in Kenya.

4.8 Financing Results

The study sought to determine the influence of financing on the growth of family businesses in Kenya. Financing was operationalized by three measures namely; access to finance, planning for funds and financial leverage where ten factors were assessed and tested for factor analysis.

4.8.1 Sample Adequacy Results of Financing

The KMO and Bartlett's tests were used to test the correlation between financing variables. The KMO measure of sample adequacy results is 0.744 as shown in Table 4.48. This indicates good partial correlation exhibited in the data for this study.

Table 4.48: KMO and Bartlett's Test for Financing

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.744
Bartlett's Test of Sphericity	Approx. Chi-Square	2032.969
	Df	21
	Sig.	.000

Ali *et al*. (2016), showed that the KMO index ranges from 0 to 1, with 0.5 and above considered suitable for factor analysis. For the Bartlett's Test of Sphericity, p-value should be less than 0.05 for factor analysis to be suitable. The Bartlett's Test of Sphericity was used at significant level of $p < 0.05$ to confirm sufficient correlation among the financing variables. The Bartlett's Test of Sphericity significance result is 0.000 which shows high significance. Rusuli *et al*. (2013), explained that Measure of Sampling Adequacy should exceed 0.5 and for Bartlett's test of Sphericity the p-value should be less than 0.05.

4.8.2 Financing Data Normality Test Results

Normality was used to test for significance and construction of confidence interval estimates of the parameters. The assumption is that the variables are normally distributed. In their study, Ali *et al*. (2016), showed that the assumptions and application of statistical tools as well as suitability of the tests are important aspects for statistical analysis. To check for normality, the study adopted the Skewness and Kurtosis test and Auto correlation test.

a) Skewness and Kurtosis Results

Measures of skewness is based on mean and median while kurtosis measures the peaked-ness of the curve of the frequency distribution (Kothari & Garg, 2014). The results presented in Table 4.49 show that a skewness coefficient of 0.126 and kurtosis coefficient of 0.365. Based on these results, it was concluded that data was normally distributed since their statistic values were between -1 and +1.

Table 4.49: Skewness and Kurtosis Test Results

Variable	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Financing	309	.126	.139	.365	.276

b) Durbin-Watson Test Results

A high degree of correlation among residuals of the regressions' data sets may produce inefficient results. As such, the presence of serial correlation among the OLS regressions is checked using Durbin and Watson's test statistic (Yupitun, 2008).

Table 4.50: Durbin-Watson (Autocorrelation) Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.630[a]	.397	.393	.32440	1.802

a. Predictors: (Constant), Financial Leverage, Access to Credit

b. Dependent Variable: Revenues

Durbin-Watson statistic ranges in value from 0 to 4 with an ideal value of 2 indicating that errors are not correlated, although values from 1.75 to 2.25 may be considered acceptable. Some authors consider Durbin-Watson value between 1.5 and 2.5 as acceptable level indicating no presence of collinearity (Makori & Jagongo, 2013). Durbin-Watson value of 1.802 indicates that the model did not suffer from autocorrelation.

4.8.3 Factor Analysis Results of Financing

Factor analysis was done on financing variables where constructs were subjected to a variance test through the principal component analysis test.

Table 4.51: Financing Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.073	63.417	63.417	3.901	48.761	48.761
2	1.381	17.259	80.676	2.553	31.915	80.676
3	.647	8.086	88.761			
4	.427	5.343	94.104			
5	.324	4.055	98.159			
6	.147	1.841	100.000			
7	3.958E-017	4.948E-016	100.000			
8	-3.640E-017	-4.550E-016	100.000			

The principal component analysis was thus used for data reduction and interpretation of the large set of data. Through factor analysis, two factors were identified which had the biggest influence on financing with cumulative variance of 80.676%. Factor one was the highest with 63.417%, while factor two had 17.259% of total variance. These two factors had their Eigen values greater than 1 and had the greatest influence on financial literacy and explain about 80.676% of variance as shown in Table 4.51.

4.8.4 Financing Rotation Component Matrix Results

Table 4.52 depicts the rotated component factor loadings for determinants of financing measures. Component 1 was access to credit which had four constructs and Component 2 was financial planning and leverage which had four constructs.

Table 4.52: Financing Rotated Component Matrix

Opinion Statement	Component	
	AC	FPL
1. It is difficult for family business to access external finances for business operations.	.893	
2. Lack of familiarity with the financial market has led to less accessibility to credit for the family business	.894	
3. Restrictions placed by financial institutions has led to less accessibility to credit as an external source of funds	.719	
4. High cost of finance has resulted in family firms to refrain from accessing external financing for business operations	.774	
5. Planning for funds has enabled family firm to understand when to seek for financing for the business.		.893
6. The firm is able to plan for the funds obtained from external sources.		.894
7. Financial planning has enabled the firm to manage the firm's cash flows from business operations.		.911
8. Family business activities are financed by debt.		.891

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 3 iterations.
KEY: AC = Access to Credit, FPL = Financial Planning & Leverage

All the variables of growth had a factor loading of higher than 0.4. Rusuli *et al*. (2013), showed that each individual variable must have value of 0.4 and above. Therefore, the component values indicate that they are highly interrelated with each other (rotated component analysis as illustrated in Appendix III).

4.8.5 Descriptive Results of Financing

Financing was assessed by two measures namely access to credit and financial leverage. Descriptive data shown on Table 4.53 presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.53: Financing Descriptive Results

Variable	Mean	Std. Deviation	Cronbach's Alpha
Access to Credit	4.1675	.39639	.799
Financial planning &Leverage	4.2306	.42833	.826
KEY: Scale**1**= Strongly Disagree and **5** = Strongly Agree, Overall mean = 4.1991, Overall Cronbach's Alpha = 0.918			

Cronbach's alpha was used to test the reliability of the proposed constructs (Ali *et al*., 2016). The findings indicated that access to credit had a coefficient of 0.799 while financial leverage had a coefficient of 0.826. Financing measures (access to credit and financial planning and leverage) depicted Cronbach's alpha of 0.918 which is above the suggested value of 0.7 hence the study was reliable.

It was noted that family businesses experienced difficulty in accessing financing for their businesses due to restrictions placed by most financial institutions, coupled with lack of familiarity with the financial market operations, as indicated by mean score of 4.17. As pointed out by Harashi *et al*. (2014), access to finance is essential to the survival and growth of any business enterprise, as it is the life-blood of any business enterprise, no matter how well managed, no enterprise can survive without enough funds for working capital, fixed assets investment, employment of skilled employees.

Planning for funds had enabled the family businesses to understand when to seek for financing and plan for the funds acquired from external sources such as banks, for continued business operations, as indicated by mean score of 4.23. This finding was supported by Omar (2014) that sound financial management, in which financial planning is a component, is crucial for the survival and well-being of enterprises. Due to proper financial planning carried out, family businesses were able to manage the firm's cash

flows. These findings are consistent with findings by Le Breton-Miller & Miller (2006) where they point out that family businesses invite long-term investments and increase the resources (funds) to invest.

On average, family business activities were financed by debt from financial institutions (commercial banks) and as far as possible, the debt acquired by family firms were maintained at less than 50% of the capital structure. This finding is supported by Vilaseca and Aznarez (2010) and Dwaikat *et al*. (2014), that lower levels of debt are preferred reducing the risk of bankruptcy.

It was also observed that the external debt acquired by family businesses were mostly used for long-term investment purposes. These findings were consistent with study done by Alfred and Xaio (2013) where they point out the difficulty family businesses face when it comes to financing their operations and maintaining levels of debt-equity mix. These findings were also in agreement with Phillips (2012), Hancock (2009), and (Harash *et al*. (2014) that family firms borrow less, preferring internal sources and avoiding long-term debt. Findings also contradicts study by Ampenberger *et al*. (2013) who found out a positive and significant correlation between firm size and leverage that is, as family size and firm age increases financial leverage also increases.

4.8.6 Financing Correlations Results

Correlation analysis was used to establish the strength and nature of the relationship between financing measures (access to credit and financial planning and leverage), family characteristics (family financial management competency) and growth (revenues and change in net-worth) of family businesses in Kenya.

Table 4.54 shows correlation matrix showing the correlation analysis with varied degree of interrelationship between access to finance, financial leverage, family characteristics (family financial management competency) and growth (in terms of revenues and change in net-worth) of family businesses.

Table 4.54: Financing Correlation Results

		AC	FPL	FFMC	REV	CNW
Access to Credit (AC)	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	309				
Financial Planning &Leverage (FPL)	Pearson Correlation	.855**	1			
	Sig. (2-tailed)	.000				
	N	309	309			
Family Financial Management Competency (FFMC)	Pearson Correlation	.386**	.398**	1		
	Sig. (2-tailed)	.000	.000			
	N	309	309	309		
Revenues (REV)	Pearson Correlation	.622**	.583**	.344**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	309	309	309	616	
Change in Net Worth (CNW)	Pearson Correlation	.632**	.678**	.480**	.464**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	309	309	309	309	309

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

KEY: AC = Access to credit, FPL = Financial planning & Leverage, FFMC = Family Financing Management Competency, REV = Revenues, CNW = Change in net worth

The Pearson correlation coefficient was generated at 0.01 significance level (2-tailed). The output indicates a strong positive relationship between financing (access to credit and financial planning and leverage) and growth (revenues and change in net-worth) of family businesses in Kenya, p =0.000. The p-value<0.01, significant at 0.01 level as the correlation matrix indicates.

There is a strong relationship between access to credit and financial planning and leverage, and revenues of family businesses (access to credit, ρ =0.622 and financial planning and leverage, ρ = 0.583).There is also a strong relationship between access to credit and financial planning and leverage, and change in net-worth of family businesses (access to credit, ρ = 0.632 and financial planning and leverage, ρ = 0.678).

Therefore the financing measures (access to credit and financial planning and leverage) are very important factors in the growth (revenues and change in net-worth) of family businesses. This is supported by Omar (2014) and Wamiori *et al*. (2016), where they showed that financial access and planning is an important determinant of the performance of enterprises.

4.8.7 Financing Goodness-of-fit Model Results

The results on Table 4.55 showed that financing measures (access to credit and financial planning and leverage) had explanatory power on revenues of family businesses as it accounted for 39.7% of its variability (R Square = 0.397) as indicated in Model 1, hence the model is a good fit for the data. This implies that there is a moderate positive relationship between financing measures (access to credit and financial planning and leverage) and revenues of family businesses.

Table 4.55: Financing Model Summary on Revenues

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.630[a]	.397	.393	.32440
2	.633[b]	.401	.397	.32345

a. Predictors: (Constant), Financial Planning &Leverage, Access to Credit

b. Predictors: (Constant), Financial Leverage, Access to Credit, Access to Credit_Family Financial Management Competency, Financial Planning & Leverage_Family Financial Management Competency

c. Dependent Variable: Revenues

On Model 2, the explanatory power of financing measures (access to credit and financial planning and leverage) did not change when family characteristics (family financial management competency) was incorporated into the model (R Square = 0.401) hence the model is a good fit for the data. This implies that the moderating variable, family financial management competency, had not weakened the relationship between financing measures (access to credit and financial planning and leverage) and revenues of family businesses.

The results on Table 4.56 showed that financing measures (access to credit and financial planning and leverage) had explanatory power on change in net-worth of family businesses as it accounted for 46.9% of its variability (R Square = 0.469) as indicated in Model 1, hence the model is a good fit for the data. This implies that there is a moderate positive relationship between financing measures (access to credit and financial planning and leverage) and change in net-worth of family businesses.

Table 4.56: Financing Model Summary on Change in Net-worth

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.685[a]	.469	.466	.34615
2	.669[b]	.448	.444	.35308

a. Predictors: (Constant), Financial Planning & Leverage, Access to Credit

b. Predictors: (Constant), Financial Leverage, Access to Credit, Access to Credit_Family Financing Management Competency, Financial Planning & Leverage_Family Financing Management Competency

c. Dependent Variable: Change in Net-worth

On Model 2, the explanatory power of financing measures (access to credit and financial planning and leverage) did not change when family characteristics (family financial management competency) was incorporated into the model (R Square = 0.448) hence the model is a good fit for the data.

This implies that the moderating variable, family financial management competency had not weakened the relationship between financing measures (access to credit and financial planning and leverage) and change in net-worth of family businesses.

4.8.8 Financing ANOVA Results

Table 4.57 presents the analysis of variance of the study on financing measures (access to finance, financial planning and leverage) and revenues of family businesses. The results reveal that a significant relationship exists between access to finance, financial planning and leverage, and revenues of family businesses (F = 100.763, p = 0.000) as indicated in Model 1.

Table 4.57: Financing ANOVA – Revenue Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	21.208	2	10.604	100.763	.000[b]
	Residual	32.202	306	.105		
	Total	53.410	308			
2	Regression	21.396	2	10.698	102.252	.000[c]
	Residual	32.015	306	.105		
	Total	53.410	308			

a. Dependent Variable: Revenues
b. Predictors: (Constant), Financial Planning &Leverage, Access to Credit
c. Predictors: (Constant), Access to Credit_Family Financial Management Competency, Financial Planning &Leverage_Family Financial Management Competency

When moderating variable, family characteristics (family financial management competency) was incorporated, the p-value is less than 0.05 as indicated in Model 2.This still indicates a significant relationship between financing measures (access to credit and financial planning and leverage) and revenues of family businesses. P value for both models is less than 0.05, thus indicating that the predictor variables explain the variation in the dependent variable which is access to credit and financial planning and leverage on the revenues of family businesses.

From the significance value, the measures of financing measures (access to credit and financial planning and leverage) are indeed different from each other and they affect the revenues of family businesses in a different manner. If the significance value of P was larger than 0.05 then the independent variables would not explain the variation in the dependent variable (Lakew & Rao, 2009).

Table 4.58: Financing ANOVA – Change in Net-worth Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	32.444	2	16.222	135.387	.000[b]
	Residual	36.665	306	.120		
	Total	69.108	308			
2	Regression	30.962	2	15.481	124.182	.000[c]
	Residual	38.147	306	.125		
	Total	69.108	308			

a. Dependent Variable: Revenues

b. Predictors: (Constant), Financial Planning & Leverage, Access to Credit

c. Predictors: (Constant), Access to Credit_Family Financial Management Competency, Financial Planning & Leverage_Family Financial Management Competency

Table 4.58 presents the analysis of variance of the study on financing measures (access to finance, financial planning and leverage) and change in net-worth of family businesses. The results reveal that a significant relationship exists between access to finance, financial planning and leverage, and change in net-worth of family businesses ($F = 135.387$, $p = 0.000$) as indicated in Model 1.

When moderating variable, family characteristics (family financial management competency) was incorporated, the p-value is less than 0.05 as indicated in Model 2. This results still showed a significant relationship between financing measures (access to credit and financial planning and leverage) and change in net-worth of family businesses.

P value for both models is less than 0.05, thus indicating that the predictor variables explain the variation in the dependent variable which is access to credit and financial planning and leverage on change in net-worth of family businesses.

From the significance value, the measures of financing measures (access to credit and financial planning and leverage) are indeed different from each other and they affect the change in net-worth of family businesses in a different manner. If the significance value of P was larger than 0.05 then the independent variables would not explain the variation in the dependent variable (Lakew & Rao, 2009).

4.8.9 Regression Results of Financing and Revenues

To establish the influence of financing measures (access to credit and financial planning and leverage) on revenues of family businesses in Kenya, the following hypothesis was tested:

H_{01}: There is no significant influence of financing on the growth (in revenues) of family businesses in Kenya.

Regression analysis was conducted to empirically determine whether financing measures (access to credit and financial planning and leverage) had significant influence on revenues of family businesses in Kenya.

Table 4.59: Regression Coefficients of Financing and Revenues

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.411	.198		7.134	.000
	Access to Credit (X_1)	.482	.090	.459	5.365	.000
	Financial Planning & Leverage (X_2)	.186	.083	.191	2.239	.026

a. Dependent Variable: Revenues

Table 4.59 displays the regression coefficients results of the financing measures, that is, access to credit and financial planning and leverage. Access to credit (supported by β=0.459, p-value = 0.000) and financial planning and leverage (supported by β=0.191, p-value = 0.000) are statistically significant in explaining revenues of family businesses in Kenya.

The influence of financing measures (access to credit and financial planning and leverage) is therefore significant indicating that the greater the levels of financing by family businesses, the greater the revenues generated from their businesses. Thus, higher levels of financing activities in family businesses are associated with increased growth of family businesses in Kenya.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05.The regression model is summarized by equation 4.7.

$$Y = 1.411 + 0.482X_1 + 0.186X_2 \quad \text{Equation 4.7}$$

Where,

Y = Revenues, X_1 – Access to credit and X_2 – Financial Planning and Leverage

To determine the moderation effect of family characteristics (family financial management competency) on financing measures (access to credit and financial planning and leverage) and revenues of family businesses, the following hypothesis was tested:

H_{01}: There is no significant moderating effect of family characteristics (family financial management competency) on financial management practices (financing) and growth (in terms of revenues) of family businesses in Kenya.

Moderated regression analysis was also conducted to empirically determine whether financing measures (access to credit and financial planning and leverage) moderated with family characteristics (family financial management competency) had any significant influence on the revenues of family businesses in Kenya.

Table 4.60 displays the regression coefficients results of the moderated financing measures (access to credit and financial planning and leverage). The interaction variable between access to credit and family characteristics (family financial management competency) has a p-value of 0.000 ($p<0.05$), while the interaction between financial planning and leverage, and family characteristics (family financial management competency) has a p-value of 0.013 (p-value<0.05).

Table 4.60: Moderated Regression Coefficients of Financing and Revenues

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.188	.018		232.667	.000
	Access to Credit (X_1)	.482	.090	.459	5.365	.000
	Financial Planning & Leverage (X_2)	.186	.083	.191	2.239	.026
	Access to Credit_Family Financial Management Competency(X_1Z)	.050	.010	.437	5.001	.000
	Financial Planning & Leverage_Family Financial Management Competency(X_2Z)	.024	.010	.216	2.401	.013

a. Dependent Variable: Revenues

This implies that the moderating variable, family financial management competency has significant moderating influence on the financing measures (access to credit and financial planning and leverage) and revenues of family businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05.The moderated regression model is summarized equation 4.8.

$$Y = 4.188 + 0.482X_1 + 0.186X_2 + 0.050X_1Z + 0.024X_2Z \ldots\ldots \quad \text{Equation 4.8}$$

Where,

Y = Revenues, X_1 – Access to Credit, X_2 – Financial Planning & Leverage, X_1Z – Access to Credit_Family Family Financial Management Competency and X_2Z – Financial Planning andLeverage_Family Financial Management Competency

It was concluded that there is statistically significant relationship between financing measures (access to credit and financial planning and leverage) and revenues of family businesses in Kenya. There is statistically significant moderation effect of family characteristics (family financial management competency) on the financing measures (access to credit and financial planning and leverage) and revenues of family businesses. Thus, increased financing activities in family businesses are associated with increased growth of family businesses in Kenya.

4.8.10 Regression Results of Financing and Change in Net Worth

To establish the influence of financing measures (access to credit and financial planning and leverage) on change in net-worth of family businesses in Kenya, the following hypothesis was tested:

H_{01}: There is no significant influence of financing on the growth (change in net-worth) of family businesses in Kenya.

Regression analysis was conducted to empirically determine whether financing measures (access to credit and financial planning and leverage) had significant influence on change in net-worth of family businesses in Kenya.

Table 4.61 displays the regression coefficients results of the financing measures, that is,. access to credit and financial planning and leverage. Access to credit (supported by β = 0.195, p-value = 0.016) and financial planning and leverage (supported by β = 0.511, p-value = 0.000) are statistically significant in explaining change in net-worth of family businesses in Kenya.

Table 4.61: Regression Coefficients of Financing and Change in Net-worth

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.103	.211		5.228	.000
	Access to Credit (X_1)	.233	.096	.195	2.427	.016
	Financial Planning & Leverage (X_2)	.565	.089	.511	6.348	.000

a. Dependent Variable: Change in net-worth

The influence of financing measures (access to credit and financial planning and leverage) is therefore significant indicating that the greater the level of financing by family businesses, the greater the change in net-worth generated from their businesses. Thus, higher levels of financing activities in family businesses are associated with increased growth of family businesses.

Therefore, the null hypothesis rejected since $\beta \neq 0$ and p-value<0.05. The regression model is summarized by equation 4.9.

$$Y = 1.103 + 0.233X_1 + 0.565X_2 \quad \text{Equation 4.9}$$

Where,

Y = Revenues, X_1 – Access to credit and X_2 – Financial planning and leverage

To determine the moderation effect of family characteristics (family financial management competency) on financing measures (access to credit and financial planning and leverage) and change in net-worth of family businesses, the following hypothesis was tested:

H_{01}: There is no significant moderating effect of family characteristics (family financial management competency) on financial management practices (financing) and growth (in terms of change in net-worth) of family businesses in Kenya.

Moderated regression analysis was also conducted to empirically determine whether financing measures (access to credit and financial planning and leverage) moderated with family characteristics (family financial management competency) had any significant influence on the change in net-worth of family businesses in Kenya.

Table 4.62 displays the regression coefficients results of the moderated financing measures (access to credit and financial planning and leverage).

Table 4.62: Moderated Regression Coefficients of Financing and Change in Net-worth

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.442	.020		222.098	.000
	Access to Credit (X_1)	.233	.096	.195	2.427	.016
	Financial Planning & Leverage (X_2)	.565	.089	.511	6.348	.000
	Access to Credit_Family Financial Management Competency(X_1Z)	.022	.011	.169	2.001	.043
	Financial Planning & Leverage_Family Financial Management Competency(X_2Z)	.065	.010	.519	6.499	.000

a. Dependent Variable: Change in net-worth

The interaction variable between access to credit and family characteristics (that is family financial management competency) has a p-value of 0.043 ($p<0.05$), while the interaction between financial planning and leverage, and family characteristics (that is, family financial management competency) has a p-value of 0.000 (p-value<0.05). This implies that the moderating variable (family financial management competency), has significant moderating influence on the financing measures (access to credit and financial planning and leverage) and change in net-worth of family businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05. The moderated regression model is summarized equation 4.10.

$$Y = 4.442 + 0.233X_1 + 0.565X_2 + 0.022X_1Z + 0.065X_2Z \ldots\ldots \quad \text{Equation 4.10}$$

Where,

Y = Change in net-worth, X_1 – Access to credit and X_2 – Financial planning and leverage, X_1Z – Access to credit_Family financial management competency and X_2Z – Financial planning and leverage_Family financial management competency

It was concluded that there is statistically significant relationship between financing measures (access to credit and financial planning and leverage) and change in net-worth of family businesses in Kenya. There is statistically significant moderation effect of family characteristics (family financial management competency) on the financing measures (access to credit and financial planning and leverage) and change in net-worth of family businesses. Thus, increased financing activities in family businesses are associated with increased growth of family businesses in Kenya.

4.9 Allocation of Financial Resources and Growth

The study sought to determine the influence of allocation of financial resources on the growth of family businesses in Kenya. Allocation of financial resources was operationalized by three sub variables namely, allocation of funds, allocation of income and control of funds, where ten factors were assessed and tested for factor analysis.

4.9.1 Sample Adequacy Results of Allocation of Financial Resources

The KMO and Bartlett's tests were used to test the correlation between allocations of financial resources variables. The KMO measure of sample adequacy results is 0.866 as shown in Table 4.63.

Table 4.63: KMO and Bartlett's Test for Allocation of Financial Resources

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.866
Bartlett's Test of Sphericity	Approx. Chi-Square	3003.241
	Df	28
	Sig.	.000

This value indicates good partial correlation exhibited in the data for this study. Ali *et al*. (2016), showed that the KMO index ranges from 0 to 1, with 0.5 and above considered suitable for factor analysis. For the Bartlett's Test of Sphericity, p-value should be less than 0.05 for factor analysis to be suitable.

The Bartlett's Test of Sphericity was used at significant level of $p < 0.05$ to confirm sufficient correlation among the financial literacy variables. The Bartlett's Test of Sphericity result is 0.000 which shows high significance. Rusuli *et al*., (2013), explained that Measure of Sampling Adequacy should exceed 0.5 and for Bartlett's test of Sphericity the p-value should be less than 0.05.

4.9.2 Allocation of Financial Resources Data Normality Test Results

Normality was used to test for significance and construction of confidence interval estimates of the parameters. The assumption is that the variables are normally distributed. In their study, Ali *et al*. (2016), showed that the assumptions and application of statistical tools as well as suitability of the tests are important aspects for statistical analysis. To check for normality, the study adopted the Skewness and Kurtosis test and Auto correlation test.

a) Skewness and Kurtosis Results

Measures of skewness is based on mean and median while kurtosis measures the peaked-ness of the curve of the frequency distribution (Kothari & Garg, 2004). The

results presented in Table 4.64 show that a skewness coefficient of 0.160 and kurtosis coefficient of -0.416. Based on these results, it was concluded that data was normally distributed since their statistic values were between -1 and +1.

Table 4.64: Skewness and Kurtosis Test Results

Variable	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Allocation of Financial Resources	309	.160	.139	-.416	.276

b) Durbin-Watson Test Results

A high degree of correlation among residuals of the regressions' data sets may produce inefficient results. As such, the presence of serial correlation among the OLS regressions is checked using Durbin and Watson's test statistic (Yupitun, 2008). Durbin-Watson statistic ranges in value from 0 to 4 with an ideal value of 2 indicating that errors are not correlated, although values from 1.75 to 2.25 may be considered acceptable. Some authors consider Durbin-Watson value between 1.5 and 2.5 as acceptable level indicating no presence of collinearity (Makori & Jagongo, 2013). Durbin-Watson value of 1.827 indicates that the model did not suffer from autocorrelation.

Table 4.65: Durbin-Watson (Autocorrelation) Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.606[a]	.367	.363	.33237	1.827

a. Predictors: (Constant), Control of Funds, Allocation of Funds & Income

b. Dependent Variable: Revenues

4.9.3 Factor Analysis Results Allocation of Financial Resources

Factor analysis was done on allocation of financial resources variables where constructs were subjected to a variance tests through the principal component analysis test. The principal component analysis was thus used for data interpretation.

All the measures of financial resource allocation were subjected to factor analysis and the results showed that there were two factors extracted that were explaining the allocation of financial resources which had a cumulative of 87.748% of the total variance. Factor one which was the highest had 64.588%, while factor two had 23.160%. These two factors had their Eigen values greater than 1 and were considered to have the greatest influence on allocation of financial resources as it explain about 87.748% of the total variance as shown in Table 4.66.

Table 4.66: Allocation of Financial Resources Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.167	64.588	64.588	3.562	44.527	44.527
2	1.853	23.160	87.748	3.458	43.221	87.748
3	.312	3.905	91.653			
4	.249	3.116	94.769			
5	.157	1.964	96.733			
6	.133	1.664	98.396			
7	.092	1.150	99.546			
8	.036	.454	100.000			

Extraction Method: Principal Component Analysis.

4.9.4 Allocation of Financial Resources Rotation Component Matrix Results

Table 4.67 depicts the rotated component factor loadings for determinants of allocation of financial resources measures. Component 1 was Control of funds which had four constructs and Component 2 was Allocation of funds and income which had four constructs.

Table 4.67: Allocation of Financial Resources Rotated Component Matrix

Opinion Statement	Component	
	AIF	CF
1. Funds are invested in long-terms projects that lead to the growth of the family firm		.929
2. Funds are utilized in management of firm's equipment and assets.		.905
3. Funds are allocated for expansion of existing business.		.948
4. Income from firm's operations is retained for growing the business.		.810
5. Cash flow statements are used to control flow of funds.	.874	
6. The firm has budgets that are used to control use of funds.	.946	
7. Funds flow as per the financial plan set by the management.	.943	
8. Proper allocation of financial resources has led to the growth of family business	.885	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 3 iterations.
KEY: AIF = Allocation of funds and income, CF = Control of funds

All the allocation of financial resources variables have a factor loading of higher than 0.4. Therefore, the component values indicate that they are highly interrelated with each other (rotated component analysis as illustrated in Appendix III).

4.9.5 Descriptive Results of Allocation of Financial Resources

Allocation of financial resources was assessed by two measures namely allocation of funds and income, and control of funds. Descriptive data shown on Table 4.68 presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.68: Allocation of Financial Resources Descriptive

Variable	Mean	Std. Deviation	Cronbach's Alpha
Allocation of Funds & Income	4.1845	.40636	.957
Control of Funds	4.4684	.57088	.946
KEY: Scale**1**= Strongly Disagree and **5** = Strongly Agree, Overall mean = 4.3265, Overall Cronbach's Alpha = 0.818			

Cronbach's alpha was used to test the reliability of the proposed constructs (Ali *et al*., 2016). The findings indicated that allocation of funds and income had a coefficient of 0.957 while control of funds had a coefficient of 0.946. Allocation of financial resources measures (allocation of funds and income and control of funds) depicted Cronbach's alpha of 0.818 which is above the suggested value of 0.7 hence the study was reliable.

The funds obtained from external sources (such as banks), were mostly invested in acquisition of long-term assets or projects and also utilized in the maintenance of firm's equipment and assets that results in the growth of family businesses as indicated by mean score of 4.18. These findings were supported by Waweru and Ngugi (2014) who point out that firms redirect resources or use assets to earn income or profit.

It was also observed that apart from investment in acquisition and maintenance of firms' equipment and assets, funds are also allocated for expansion of the existing business. These findings were conflicting with findings by De Voe and Iyengar (2009) that family businesses face the fundamental problem of how to allocate resources fairly and Dyer

(2006) that families are much more likely to draw on firms resources to meet family needs than they are to use family resources for the benefit of the firm.

It was noted that firm's income from the business operations was used to clear the most expensive debt at the time. On the other hand, apart from clearing expensive debt, the income generated from business operations was retained for future business growth prospects. This is in line with Le Bretton-Miller and Miller (2006), that family firms invest more of their resources for the long run. A portion of income generated was set aside for future cash flow requirements in cases of emergencies. These findings were consistent with Chrisman *et al*. (2013) that family firms have different approaches in utilization of its financial resources (income). Harash *et al*. (2014) point out that the basic internal sources of capital for family businesses are the retained or undistributed profits obtained from business operations in previous years.

The flow of funds was controlled by the use of cash flow statement while use of funds was controlled by the use of budgets and financial plans as indicated by mean score of 4.47. Due to control of funds, funds flow as per the financial plan set out by the management and that proper allocation of financial resources (funds and income) has resulted in the growth of family businesses. These findings were in agreement with study by Akinyomi (2014) that planning and controlling funds are important aspect of cash management.

4.9.6 Allocation of Financial Resources Correlations Results

Correlation analysis was used to establish the strength and the nature of the relationship between allocation of financial resources measures (allocation of funds and income and control of funds), family characteristics (family financial management competency) and growth (revenues and change in net-worth) of family businesses in Kenya.

Table 4.69 shows correlation matrix showing the correlation analysis with varied degree of interrelationship between allocation of funds and income, control of funds, family

characteristics (family financial management competency) and growth (revenues and change in net-worth) of family businesses.

Table 4.69: Allocation of Financial Resources Correlation Results

		AIF	CF	FFMC	REV	CNW
Allocation of Funds & Income (AIF)	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	309				
Control of Funds (CF)	Pearson Correlation	.479**	1			
	Sig. (2-tailed)	.000				
	N	309	309			
Family Financial Management Competency (FFMC)	Pearson Correlation	.343**	.386**	1		
	Sig. (2-tailed)	.000	.000			
	N	309	309	309		
Revenues (REV)	Pearson Correlation	.580**	.431**	.344**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	309	309	309	616	
Change in Net Worth (CNW)	Pearson Correlation	.374**	.670**	.480**	.464**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	309	309	309	309	309

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

KEY: AIF = Allocation of funds & Income, CF = Control of funds, FFMC = Family Financial Management Competency, REV = Revenues, CNW = Change in net-worth

The Pearson correlation coefficient was generated at 0.01 significance level (2-tailed). The output indicates a strong positive relationship between allocation of financial resources (allocation of funds and income and control of funds) and growth (that is, revenues and change in net-worth) of family businesses in Kenya, p =0.000. The p-value<0.01, significant at 0.01 level as the correlation matrix indicates.

There is a strong relationship between allocation of funds and income and control of funds, and revenues of family businesses (allocation of funds and income, ρ = 0.580 and control of funds, ρ = 0.431). There is a moderate relationship between allocation of funds and income and control of funds, and change in net-worth of family businesses (allocation of funds and income, ρ = 0.374 and control of funds, ρ = 0.670).Therefore, the allocation of financial resources measures (allocation of funds and income and control of funds) are very important factors in the growth (in terms of revenues and change in net-worth) of family businesses. This is supported by Le Breton-Miller and Miller (2006) where they showed that resource allocations are important and intended to realize the long-term growth of family businesses.

4.9.7 Allocation of Financial Resources Goodness-of-fit Model Results

The results on Table 4.70 showed that allocation of financial resources measures (allocation of funds and income, and control of funds) had explanatory power on revenues of family businesses as it accounted for 36.7% of its variability (R Square = 0.367) as indicated in Model 1. This implies that there is a moderate positive relationship between allocation of financial resources measures (allocation of funds and income, and control of funds) and revenues of family businesses.

Table 4.70: Allocation of Financial Resources Model on Revenues

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.606[a]	.367	.363	.33237
2	.600[b]	.360	.356	.33427

a. Predictors: (Constant), Control of Funds, Allocation of Funds & Income

b. Predictors: (Constant), Control of Funds, Allocation of Funds & Income, Control of Funds_Family Financial Management Competency, Allocation of Funds & Income_Family Financial Management Competency

c. Dependent Variable: Revenues

On Model 2, the explanatory power of allocation of financial resources measures (allocation of funds and income, and control of funds) did not change when family characteristics (family financial management competency) was incorporated into the model (R Square = 0.360). This implies that the moderating variable, family characteristics (family financial management competency) had not weakened the relationship between allocation of financial resources measures (allocation of funds and income, and control of funds) and revenues of family businesses.

The results on Table 4.71 showed that allocation of financial resources measures (allocation of funds and income, and control of funds) had explanatory power on change in net-worth of family businesses as it accounted for 45.2% of its variability (R Square = 0.452) as indicated in Model 1. This implies that there is a moderate positive relationship between allocation of financial resources measures (allocation of funds and income, and control of funds) and change in net-worth of family businesses.

Table 4.71: Allocation of Financial Resources Model on Change in Net-worth

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.672[a]	.452	.449	.35177
2	.662[b]	.438	.434	.35622

a. Predictors: (Constant), Control of Funds, Allocation of Funds & Income
b. Predictors: (Constant), Control of Funds, Allocation of Funds & Income, Control of Funds_Family Financial Management Competency, Allocation of Funds & Income_Family Financial Management Competency
c. Dependent Variable: Change in Net-worth

On Model 2, the explanatory power of allocation of financial resources measures (allocation of funds and income, and control of funds) did not change when family characteristics (family financial management competency) was incorporated into the model (R Square = 0.438). This implies that the moderating variable, family characteristics (family financial management competency) had not weakened the

relationship between allocation of financial resources measures (allocation of funds and income, and control of funds) and change in net-worth of family businesses.

4.9.8 Allocation of Financial Resources ANOVA Results

Table 4.72 presents the analysis of variance of the study on allocation of financial resources measures (allocation of funds and income and control of funds) and revenues. The results reveal that a significant relationship exists between allocation of funds and income, control of funds and revenues of family businesses (F = 88.748, p = 0.000) as indicated in Model 1.

Table 4.72: Allocation of Financial Resources ANOVA – Revenue Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.607	2	9.804	88.748	.000[b]
	Residual	33.803	306	.110		
	Total	53.410	308			
2	Regression	19.219	2	9.610	86.004	.000[c]
	Residual	34.191	306	.112		
	Total	53.410	308			

a. Dependent Variable: Revenues

b. Predictors: (Constant), Control of Funds, Allocation of Funds & Income

c. Predictors: (Constant), Control of Funds_Family Financial Management Competency, Allocation of Funds & Income_Family Financial Management Competency

When moderating variable, family characteristics (family financial management competency) was incorporated, the p-value is less than 0.05 as indicated in Model 2. This still indicates a significant relationship between allocation of financial resources measures (allocation of funds and income and control of funds) and revenues of family businesses. P value for both models is less than 0.05, thus indicating that the predictor variables explain the variation in the dependent variable which is allocation of funds and income and control of funds on revenues of family businesses.

From the significance value, the measures of allocation of financial resources measures (allocation of funds and income and control of funds) are indeed different from each other and they affect the revenues of family businesses in a different manner. If the significance value of P was larger than 0.05 then the independent variables would not explain the variation in the dependent variable (Lakew & Rao, 2009).

Table 4.73 presents the analysis of variance of the study on allocation of financial resources measures (allocation of funds and income and control of funds) and change in net-worth. The results reveal that a significant relationship exists between allocation of funds and income, control of funds and change in net-worth of family businesses (F = 126.249, p = 0.000) as indicated in Model 1.

Table 4.73: Allocation of Financial Resources ANOVA – Change in Net-worth Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	31.244	2	15.622	126.249	.000[b]
	Residual	37.864	306	.124		
	Total	69.108	308			
2	Regression	30.280	2	15.140	119.314	.000[c]
	Residual	38.829	306	.127		
	Total	69.108	308			

a. Dependent Variable: Change in Net-worth

b. Predictors: (Constant), Control of Funds, Allocation of Funds & Income

c. Predictors: (Constant), Control of Funds_Family Financial Management Competency, Allocation of Funds & Income_Family Financial Management Competency

When moderating variable, family characteristics (family financial management competency) was incorporated, the p-value is less than 0.05 as indicated in Model 2.This still indicates a significant relationship between allocation of financial resources measures (allocation of funds and income and control of funds) and change in net-worth of family businesses.

P value for both models is less than 0.05, thus indicating that the predictor variables explain the variation in the dependent variable which is allocation of funds and income and control of funds on change in net-worth of family businesses. From the significance value, the measures of allocation of financial resources measures (allocation of funds and income and control of funds) are indeed different from each other and they affect the change in net-worth of family businesses in a different manner. If the significance value of P was larger than 0.05 then the independent variables would not explain the variation in the dependent variable (Lakew & Rao, 2009).

4.9.9 Regression Results of Allocation of Financial Resources and Revenues

To establish the influence of allocation of financial resources (that is, allocation of funds and income, and control of funds) on the revenues of family businesses in Kenya, the following hypothesis was tested:

H_{01}: There is no significant influence of allocation of financial resources on the growth (in revenues) of family businesses in Kenya.

Regression analysis was conducted to empirically determine whether allocation of financial resources measures (allocation of funds and income, and control of funds) had any significant influence on the revenues of family businesses in Kenya.

Table 4.74: Regression coefficients of Allocation of Financial Resources and Revenues

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.479	.206		7.179	.000
	Allocation of Funds & Income (X_1)	.497	.053	.485	9.377	.000
	Control of Funds (X_2)	.145	.038	.199	3.816	.000

a. Dependent Variable: Revenues

Table 4.74 displays the regression coefficients results of the allocation of financial resources measures (allocation of funds and income, and control of funds). Allocation of funds and income (supported by $\beta = 0.485$, p-value = 0.000) and control of funds (supported by $\beta = 0.199$, p-value = 0.000) are statistically significant in explaining revenues of family businesses in Kenya.

The influence of allocation of financial resources measures (allocation of funds and income, and control of funds) is therefore significant indicating that the greater the allocation of financial resources by family businesses, the greater the revenues generated from their businesses. Thus, higher levels of allocation of financial resources in family businesses are associated with increased growth of family businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05. The regression model is summarized by equation 4.11.

$$Y = 1.479 + 0.497X_1 + 0.145X_2 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad \text{Equation 4.11}$$

Where,

Y = Revenues, X_1 – Allocation of Funds and Income, and X_2 – Control of Funds

To determine the moderation effect of family characteristics (family financial management competency) on allocation of financial resources(allocation of funds and income, and control of funds) and revenues of family businesses, the following hypothesis was tested:

H_{01}: There is no significant moderating effect of family characteristics (family financial management competency) on financial management practices (allocation of financial resources) and revenues of family businesses in Kenya.

Moderated regression analysis was also conducted to empirically determine whether allocation of financial resources measures (allocation of funds and income, and control of funds) moderated with family characteristics (family financial management competency) had any significant influence on the revenues of family businesses in Kenya.

Table 4.75 displays the regression coefficients results of the moderated allocation of financial resources measures (allocation of funds and income, and control of funds).

Table 4.75: Moderated Regression coefficients of Allocation of Financial Resources and Revenues

Model	Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.190	.019		220.526	.000
	Allocation of Funds & Income (X_1)	.497	.053	.485	9.377	.000
	Control of Funds (X_2)	.145	.038	.199	3.816	.000
	Allocation of Funds & Income_Family Financial Management Competency (X_1Z)	.051	.006	.473	8.499	.000
	Control of Funds_Family Financial Management Competency (X_2Z)	.017	.004	.205	4.249	.000

a. Dependent Variable: Revenues

The interaction variable between allocation of funds and income and family characteristics (family financial management competency) has a p-value of 0.000 ($p<0.05$), while the interaction between control of funds and family characteristics (family financial management competency) has a p-value of 0.000 (p-value<0.05).

This implies that the moderating variable, family characteristics (family financial management competency) has significant moderating influence on the allocation of financial resources measures (allocation of funds and income, and control of funds) and revenues of family businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05.The moderated regression model is summarized by equation 4.12.

$$Y = 4.190 + 0.497X_1 + 0.145X_2 + 0.051X_1Z + 0.017X_2Z\ldots \quad \text{Equation 4.12}$$

Where,

Y = Revenues, X_1 – Allocation of Funds and Income, and X_2 – Control of Funds, X_1Z – Allocation of Funds and Income_Family Financial Management Competency, and X_2Z – Control of Funds_Family Financial Management Competency

It was concluded that there is statistically significant relationship between allocation of financial resources measures (allocation of funds and income, and control of funds)and revenues of family businesses in Kenya. There is statistically significant moderation effect of family characteristics(family financial management competency,) on the allocation of financial resources measures (allocation of funds and income and control of funds) and revenues of family businesses. Thus, increased allocation of financial resources by family businesses are associated with increased growth of family businesses in Kenya.

4.9.10 Regression Results of Allocation of Financial Resources and Change in Net Worth

To establish the influence of allocation of financial resources measures (that is, allocation of funds and income, and control of funds) on the change in net-worth of family businesses in Kenya, the following hypotheses were tested:

H_{01}: There is no significant influence of allocation of financial resources on the growth (change in net-worth) of family businesses in Kenya.

Regression analysis was conducted to empirically determine whether allocation of financial resources measures (allocation of funds and income, and control of funds) had any significant influence on the change in net-worth of family businesses in Kenya.

Table 4.76 displays the regression coefficients results of the allocation of financial resources measures (allocation of funds and income, and control of funds).

Table 4.76: Regression coefficients of Allocation of Financial Resources and Change in Net-worth

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.769	.218		8.115	.000
	Allocation of Funds & Income (X_1)	.080	.056	.069	1.429	.046
	Control of Funds (X_2)	.528	.040	.637	13.119	.000

a. Dependent Variable: Change in net-worth

Allocation of funds and income (supported by β=0.069, p-value = 0.046) and control of funds (supported by β=0.637, p-value = 0.000) are statistically significant in explaining change in net-worth of family businesses in Kenya.

The influence of allocation of financial resources measures (allocation of funds and income, and control of funds) is therefore significant indicating that the greater the allocation of financial resources by family businesses, the greater the change in net-worth generated from their businesses. Thus, higher levels of allocation of financial resources in family businesses are associated with increased growth of family businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05. The regression model is summarized by equation 4.13.

$$Y = 1.769 + 0.080X_1 + 0.528X_2 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad \text{Equation 4.13}$$

Where,

Y = Change in net-worth, X_1 – Allocation of Funds and Income, and X – Control of Funds

To determine the moderation effect of family characteristics (family financing management competency)on allocation of financial resources (allocation of funds and income, and control of funds) and change in net-worthof family businesses, the following hypothesis was tested:

H_{01}: There is no significant moderating effect of family characteristics (family financing management competency) on financial management practices (allocation of financial resources) and change in net-worthof family businesses in Kenya.

Moderated regression analysis was also conducted to empirically determine whether allocation of financial resources measures (allocation of funds and income, and control of funds) moderated with family characteristics (family financing management competency) had any significant influence on the change in net-worth of family businesses in Kenya.

Table 4.77 displays the regression coefficients results of the moderated allocation of financial resources measures (allocation of funds and income, and control of funds).

Table 4.77: Moderated Regression coefficients of Allocation of Financial Resources and Change in net-worth

Model	Variable	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.443	.020		222.150	.000
	Allocation of Funds & Income (X_1)	.080	.056	.069	1.429	.046
	Control of Funds (X_2)	.528	.040	.637	13.119	.000
	Allocation of Funds & Income_Family FinancialManagement Competency (X_1Z)	.005	.006	.044	.833	.037
	Control of Funds_Family FinancialManagement Competency (X_2Z)	.062	.005	.640	12.399	.000

a. Dependent Variable: Change in net-worth

The interaction variable between allocation of funds and income and family characteristics (family financing management competency) has a p-value of 0.037 ($p<0.05$), while the interaction between control of funds and family characteristics (family financing management competency) has a p-value of 0.000 (p-value<0.05).

This implies that the moderating variable, family characteristics (family financing management competency) has significant moderating influence on the allocation of financial resources measures (allocation of funds and income, and control of funds) and change in net-worth of family businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05.The moderated regression model is summarized by equation 4.14.

$$Y = 4.443 + 0.080X_1 + 0.528X_2 + 0.005X_1Z + 0.062X_2Z \ldots. \text{ Equation 4.14}$$

Where,

Y = Change in net-worth, X_1 – Allocation of Funds and Income, and X – Control of Funds, X_1Z – Allocation of Funds and Income_Family Financial Management Competency, and X_2Z – Control of Funds_Family Financial Management Competency

It was concluded that there is statistically significant relationship between allocation of financial resources measures (allocation of funds and income, and control of funds) and change in net-worth of family businesses in Kenya. There is statistically significant moderation effect of family financial management competency on the allocation of financial resources measures (allocation of funds and income and control of funds) and change in net-worth of family businesses. Thus, increased allocation of financial resources by family businesses are associated with increased growth of family businesses in Kenya.

4.10 Cash Management Results

The study sought to determine the influence of cash management on the growth of family businesses in Kenya. Cash management was operationalized by three measures namely; cash requirements, disbursement of funds and liquidity, where ten factors were assessed and tested for factor analysis.

4.10.1 Sample Adequacy Results of Cash Management

The KMO and Bartlett's tests were used to test the correlation between cash management variables. The KMO measure of sample adequacy results is 0.701 as shown in Table 4.78. This value indicates good partial correlation exhibited in the data for this study.

Table 4.78: KMO and Bartlett's Test for Cash Management

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.701
Bartlett's Test of Sphericity	Approx. Chi-Square	1734.089
	Df	28
	Sig.	.000

Ali *et al*. (2016), pointed out that the KMO index ranges from 0 to 1, with 0.5 and above considered suitable for factor analysis. For the Bartlett's Test of Sphericity, p-value should be less than 0.05 for factor analysis to be suitable. The Bartlett's Test of Sphericity was used at significant level of $p < 0.05$ to confirm sufficient correlation among the financial literacy variables.

The Bartlett's Test of Sphericity result is 0.000 which shows high significance. Rusuli *et al*. (2013), explained that Measure of Sampling Adequacy should exceed 0.5 and for Bartlett's test of Sphericity the p-value should be less than 0.05.

4.10.2 Cash Management Data Normality Test Results

Normality was used to test for significance and construction of confidence interval estimates of the parameters. The assumption is that the variables are normally distributed. In their study, Ali *et al*. (2016), showed that the assumptions and application of statistical tools as well as suitability of the tests are important aspects for statistical analysis. To check for normality, the study adopted Skewness and Kurtosis test and Auto correlation test.

a) Skewness and Kurtosis Results

Measures of skewness is based on mean and median while kurtosis measures the peaked-ness of the curve of the frequency distribution (Kothari & Garg, 2004). The results presented in Table 4.79 show that a skewness coefficient of 0.751 and kurtosis coefficient of 0.943. Based on these results, it was concluded that data was normally distributed since their statistic values were between -1 and +1.

Table 4.79: Skewness and Kurtosis Test

Variable	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Cash Management	309	.751	.139	.943	.276

b) Durbin-Watson Test Results

A high degree of correlation among residuals of the regressions' data sets may produce inefficient results. As such, the presence of serial correlation among the OLS regressions is checked using Durbin and Watson's test statistic (Yupitun, 2008).

Table 4.80: Durbin-Watson (Autocorrelation) Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.475[a]	.226	.218	.36820	1.933

a. Predictors: (Constant), Liquidity, Cash Transactions, Cash Outflows
b. Dependent Variable: Revenues

Durbin-Watson statistic ranges in value from 0 to 4 with an ideal value of 2 indicating that errors are not correlated, although values from 1.75 to 2.25 may be considered acceptable. Some authors consider Durbin-Watson value between 1.5 and 2.5 as acceptable level indicating no presence of collinearity (Makori & Jagongo, 2013). Durbin-Watson value of 1.933 indicates that the model did not suffer from autocorrelation.

4.10.3 Factor Analysis Results of Cash Management

Factor analysis was done on cash management variables where constructs were subjected to variance tests through the principal component analysis test. The principal component analysis was thus used for interpretation of the large set of data.

Table 4.81: Cash Management Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.065	50.812	50.812	2.718	33.973	33.973
2	1.641	20.507	71.319	2.220	27.752	61.725
3	1.037	12.959	84.278	1.804	22.553	84.278
4	.610	7.623	91.901			
5	.220	2.753	94.655			
6	.201	2.510	97.164			
7	.163	2.038	99.202			
8	.064	.798	100.000			

Extraction Method: Principal Component Analysis.

All the measures of cash management were subjected to factor analysis and the results showed that there were three factors extracted that were explaining cash management variables which had cumulative of 84.278% of the total variance. Factor one was the highest with 50.812%, factor two had 20.507%, while the third factor had 12.959 of the total variance. These three factors had their Eigen values greater than 1 and were considered to have the greatest influence on cash management as they explain about 84.278% of the total variance as shown in Table 4.81.

4.10.4 Cash Management Rotation Component Matrix Results

Table 4.82 depicts the rotated component factor loadings for determinants of cash management measures. Component 1 was Liquidity which had three constructs,

Component 2 was Cash transactions which had three constructs and Component 3 was Cash out flows which had two constructs. Therefore, the component values indicate that they are highly interrelated with each other (rotated component analysis as illustrated in Appendix III).

Table 4.82: Cash Management Rotated Component Matrix

Opinion Statement	Component		
	OL	CT	COF
1. Cash transactions are in line with the firm's cash budgets.		.905	
2. The firm prefers to hold liquid cash for daily business transactions.		.879	
3. Cash transactions are preferred than giving credit terms to customers.		.902	
4. Payments to suppliers are normally made on cash basis.			.921
5. Other mode of payments to suppliers usually incur bank charges and internal costs.			.636
6. The firm is able to meet short-term liquidity obligations towards its suppliers.	.918		
7. The firm is liquid enough to meet creditors demand.	.952		
8. The firm operates with enough cash to deal with financial emergencies.	.907		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 5 iterations.
KEY: CT = Cash transactions, COF = Cash outflows, L = Liquidity

All the variables of cash management have a factor loading of higher than 0.4.

4.10.5 Descriptive Results of Cash Management

Cash management was assessed by three measures namely cash transactions, cash outflows and Liquidity. Descriptive data shown on Table 4.83presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.83: Cash Management Descriptive

Variable	Mean	Std. Deviation	Cronbach's Alpha
Cash Transactions	4.0259	.42983	.875
Cash Outflows	4.0728	.54240	.748
Liquidity	4.3139	.47482	.867
KEY: Scale**1**= Strongly Disagree and **5** = Strongly Agree, Overall mean = 4.1375, Overall Cronbach's Alpha = 0.937			

Cronbach's alpha was used to test the reliability of the proposed constructs (Ali *et al*., 2016). The findings indicated that cash transaction had a coefficient of 0.875, cash outflows had a coefficient of 0.748, while liquidity had a coefficient of 0.867. Cash management measures depicted Cronbach's alpha of 0.937 which is above the suggested value of 0.7 hence the study was reliable.

It was ascertained that business cash transactions are corresponding to the firm's cash budgets as indicated by mean score of 4.01. Study findings were supported by Abioro (2013) that cash is the basic input required to keep the business running on a continuous basis and that firms should keep sufficient cash as cash shortage will disrupt business operations.

It was also noted that family businesses prefer to hold liquid cash for their daily business transactions and as such cash transactions are mostly preferred than credit terms to their customers. These findings were supported by Waweru and Ngugi (2014), where managers create value by reducing their inventories and the number of days their accounts are outstanding. The findings were also in accordance with findings of Akinyomi (2014) who point out the determination of the most favourable cash to hold and the need to have a trade-off between the opportunity cost of holding too much cash and the trading cost of holding too little.

Payments to suppliers were mainly done on cash basis, as such other mode of payments such as bank transfers, cheques, e.t.c. usually incur bank charges and internal costs to effect the suppliers payments as indicated by mean score of 4.07. These findings was supported by Akinyomi (2014) and Muthama *et al*. (2016), who point out the importance of managing cash payments. The time for processing suppliers payments were in line with the creditor's terms, hence limits are usually set for such payments to suppliers. These findings were supported by Al Smirat (2016) and Lakew and Rao (2009) pointing out that it is an important strategy focusing on managing firm's current assets and current liabilities.

Since family businesses prefer to hold liquid cash and that suppliers payments were in line with the creditor's terms, the respondents strongly agreed that family businesses were liquid enough to meet short-term liquidity (liability) obligations as they fall due and creditors demand as indicated by mean score of 4.31. This finding was in line with discussion by Akinyomi (2014) that adequate control of cash position is important to keep the firm sufficiently liquid.

It was noted that family businesses operate with enough cash to deal with financial emergencies in the future. These findings were consistent with study by Hamza *et al*. (2013) and Akinyomi (2014) that the main objective of cash management is to determine the optimum level of cash required for business operations; while Duncan *et al*., (2015) point out that determination of optimum cash levels involves a combination of investment and financial decisions, the determination of the amount of "buffer" money to hold is seen as an investment decision.

4.10.6 Cash Management Correlations Results

Correlation analysis was used to establish the strength and nature of the relationship between cash management measures (cash transactions, cash outflows and liquidity), family financial management competency and growth (in terms of revenues and change in net-worth) of family businesses in Kenya.

Table 4.84 shows correlation matrix showing the correlation analysis with varied degree of interrelationship between cash transactions, cash outflows and liquidity, and growth (revenues and change in net-worth) of family businesses. The Pearson correlation coefficient was generated at 0.01 significance level (2-tailed). The output indicates a strong positive relationship between cash management measures (cash transactions, cash outflows and liquidity) and growth (revenues and change in net-worth) of family businesses in Kenya, p =0.000. The p-value<0.01, significant at 0.01 level as the correlation matrix indicates.

Table 4.84: Cash Management Correlation Results

		CT	COF	L	FFMC	REV	CNW
Cash Transactions (CT)	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	309					
Cash Outflows (COF)	Pearson Correlation	.631**	1				
	Sig. (2-tailed)	.000					
	N	309	309				
Liquidity (L)	Pearson Correlation	.556**	.819**	1			
	Sig. (2-tailed)	.000	.000				
	N	309	309	309			
Family Financial Management Competency (FFMC)	Pearson Correlation	.331**	.279**	.384**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	309	309	309	309		
Revenues (REV)	Pearson Correlation	.374**	.131*	.276**	.344**	1	
	Sig. (2-tailed)	.000	.021	.000	.000		
	N	309	309	309	309	616	
Change in Net Worth (CNW)	Pearson Correlation	.333**	.464**	.598**	.480**	.464**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	309	309	309	309	309	309

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

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

KEY: CT = Cash transactions, COF = Cash outflows, L = Liquidity,
FFMC = Family Financial Management Competency, REV = Revenues, CNW = Change in net worth

There is a weak positive relationship between cash transactions, cash outflows and liquidity, and revenues of family businesses (cash transactions, ρ = 0.374, cash outflows, ρ = 0.131 and control of funds, ρ = 0.276). There is a moderate positive relationship between cash transactions, cash outflows and liquidity, and change in net-worth of family businesses (cash transactions, ρ = 0.333, cash outflows, ρ = 0.464 and control of funds, ρ = 0.598).

Therefore the cash management measures (cash transactions, cash outflows and liquidity) are very important factors in the growth (revenues and change in net-worth) of family businesses. This is supported by Abioro (2013) that cash is the most important current asset for the operation of any business and is the basic input required to keep the business running on a continuous basis.

4.10.7 Cash Management Goodness-of-fit Model Results

The results on Table 4.85 showed that cash management measures (cash transactions, cash outflows and liquidity) had explanatory power on revenues of family businesses as it accounted for 22.6% of its variability (R Square = 0.226) as indicated in Model 1, hence the model is a good fit for the data. This implies that there is a weak positive relationship between cash management measures (cash transactions, cash outflows and liquidity) and revenues of family businesses.

Table 4.85: Cash Management Model Summary on Revenues

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.475[a]	.226	.218	.36820
2	.488[b]	.238	.231	.36521

a. Predictors: (Constant), Liquidity, Cash Transactions, Cash Outflows
b. Predictors: (Constant), Liquidity, Cash Transactions, Cash Outflows, Liquidity_Family Financial Management Competency, Cash Transactions_Family Financial Management Competency, Cash Outflow_Family Financial Management Competency
c. Dependent Variable: Revenues

On Model 2, the explanatory power of cash management measures (cash transactions, cash outflows, and liquidity) did not change when family characteristics (family financial management competency) was incorporated into the model (R Square = 0.238) hence the model is a good fit for the data. This implies that the moderating variable, family financial management competency, had not weakened the relationship between cash management measures (cash transactions, cash outflows, and liquidity) and revenues of family businesses.

Table 4.86: Cash Management Model Summary on Change in Net-worth

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.600[a]	.360	.354	.38075
2	.576[b]	.332	.325	.38913

a. Predictors: (Constant), Liquidity, Cash Transactions, Cash Outflows

b. Predictors: (Constant), Liquidity, Cash Transactions, Cash Outflows, Liquidity_Family Financial Management Competency, Cash Transactions_Family Financial Management Competency, Cash Outflow_Family Financial Management Competency

c. Dependent Variable: Change in Net-worth

The results on Table 4.86 showed that cash management measures (cash transactions, cash outflows and liquidity) had explanatory power on change in net-worth of family businesses as it accounted for 36.0% of its variability (R Square = 0.360) as indicated in Model 1, hence the model is a good fit for the data. This implies that there is a weak positive relationship between cash management measures (cash transactions, cash outflows and liquidity) and change in net-worth of family businesses.

On Model 2, the explanatory power of cash management measures (cash transactions, cash outflows, and liquidity) slightly reduced when family financial management competency was incorporated into the model (R Square = 0.332) hence the model is a good fit for the data. This implies that the moderating variable, family financial

management competency, had not weakened the relationship between cash management measures (cash transactions, cash outflows, and liquidity) and change in net-worth of family businesses.

4.10.8 Cash Management ANOVA Results

Table 4.87 presents the analysis of variance of the study on cash management measures (cash transactions, cash outflows and liquidity) and revenues. The results reveal that a significant relationship exists between cash transactions, cash outflows, liquidity and revenues of family businesses (F = 29.655, p = 0.000) as indicated in Model 1.

Table 4.87: Cash Management ANOVA – Revenues Results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.061	3	4.020	29.655	.000[b]
	Residual	41.349	305	.136		
	Total	53.410	308			
2	Regression	12.729	3	4.243	31.810	.000[c]
	Residual	40.681	305	.133		
	Total	53.410	308			

a. Dependent Variable: Revenues
b. Predictors: (Constant), Liquidity, Cash Transactions, Cash Outflows
c. Predictors: (Constant), Liquidity_Family Financial Management Competency, Cash Transactions_Family Financial Management Competency, Cash Outflow_Family Financial Management Competency

When moderating variable family characteristics (family financial management competency) was incorporated, the p-value is less than 0.05 as indicated in Model 2.This still indicates a significant relationship between the cash management measures (cash transactions, cash outflows and liquidity) and revenues of family businesses. P value for both models is less than 0.05, thus indicating that the predictor variables explain the variation in the dependent variable which is cash transactions, cash outflows, and liquidity on revenues of family businesses.

From the significance value, the measures of cash management measures (cash transactions, cash outflows and liquidity) are indeed different from each other and they affect the revenues of family businesses in a different manner. If the significance value of P was larger than 0.05 then the independent variables would not explain the variation in the dependent variable (Lakew & Rao, 2009).

Table 4.88 presents the analysis of variance of the study on cash management measures (cash transactions, cash outflows and liquidity) and revenues. The results reveal that a significant relationship exists between cash transactions, cash outflows, liquidity and revenues of family businesses (F = 57.234, p =0.000) as indicated in Model 1.

Table 4.88: Cash Management ANOVA – Change in Net-worth

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	24.892	3	8.297	57.234	.000[b]
	Residual	44.216	305	.145		
	Total	69.108	308			
2	Regression	22.926	3	7.642	50.469	.000[c]
	Residual	46.183	305	.151		
	Total	69.108	308			

a. Dependent Variable: Revenues

b. Predictors: (Constant), Liquidity, Cash Transactions, Cash Outflows

c. Predictors: (Constant), Liquidity_Family Financial Management Competency, Cash Transactions_Family Financial Management Competency, Cash Outflow_Family Financial Management Competency

P value for both models is less than 0.05, thus indicating that the predictor variables explain the variation in the dependent variable which is cash transactions, cash outflows, and liquidity on change in net-worth of family businesses.

From the significance value, the measures of cash management measures (cash transactions, cash outflows and liquidity) are indeed different from each other and they affect the change in net-worth of family businesses in a different manner. If the

significance value of P was larger than 0.05 then the independent variables would not explain the variation in the dependent variable (Lakew & Rao, 2009).

4.10.9 Regression Results of Cash Management and Revenues

To establish the influence of cash management measures (that is, cash transactions, cash outflows and liquidity) on the revenues of family businesses in Kenya, the following hypothesis was tested:

H_{01}: There is no significant influence of cash management on the growth (in revenues) of family businesses in Kenya.

Regression analysis was conducted to empirically determine whether cash management measures (cash transactions, cash outflows and liquidity) had any significant influence on the revenues of family businesses in Kenya.

Table 4.89: Regression Coefficients of Cash Management and Revenues

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.287	.221		10.348	.000
	Cash Transactions (X_1)	.439	.063	.453	6.968	.000
	Cash Outflows (X_2)	-.359	.064	-.528	-5.609	.000
	Liquidity (X_3)	.371	.072	.457	5.153	.000

a. Dependent Variable: Revenues

Table 4.89 displays the regression coefficients results of the cash management measures (cash transactions, cash outflows and liquidity). Cash transactions (supported by β=0.453, p-value = 0.000), cash outflows (supported by β=-0.528, p-value = 0.000), and

liquidity (supported by β=0.457, p-value = 0.000) are statistically significant in explaining revenues of family businesses in Kenya.

The influence of cash management measures (cash transactions, cash outflows and liquidity) is therefore significant indicating that increased levels of cash management by family businesses, increases the revenues generated from their businesses. Thus, higher levels of cash management in family businesses are associated with increased growth of family businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05. The regression model is summarized by equation 4.15.

$$Y = 2.287 + 0.439X_1 - 0.359X_2 + 0.371X_3 \ldots\ldots\ldots\ldots\ldots \quad \text{Equation 4.15}$$

Where,

Y = Revenues, X_1 – Cash Transactions, X_2– Cash Outflows and X_3 –Liquidity

To determine the moderation effect of family characteristics (family financial management competency)on cash management measures (cash transactions, cash outflows and liquidity)and revenues of family businesses, the following hypotheses were tested:

H_{01}: There is no significant moderating effect of family characteristics (family financial management competency) on financial management practices (cash management) and revenues of family businesses in Kenya.

Moderated regression analysis was also conducted to empirically determine whether cash management (cash transactions, cash outflows and liquidity) with family characteristics (family financial management competency) had any significant influence on the revenues of family businesses in Kenya.

Table 4.90: Moderated Regression Coefficients of Cash Management and Revenues

Model	Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.180	.021		199.048	.000
	Cash Transactions (X_1)	.439	.063	.453	6.968	.000
	Cash Outflows (X_2)	-.359	.064	-.528	-5.609	.000
	Liquidity (X_3)	.371	.072	.457	5.153	.000
	Cash Transaction_Family Financial Management Competency (X_1Z)	.049	.007	.479	7.001	.000
	Cash Outflow_Family Financial Management Competency (X_2Z)	-.039	.007	-.527	-5.571	.000
	Liquidity_Family Financial Management Competency (X_3Z)	.040	.008	.437	5.001	.000

a. Dependent Variable: Revenues

Table 4.90 displays the regression coefficients results of the moderated cash management measures. The interaction variable between cash transaction and family characteristics (family financial management competency) has a p-value of 0.000 ($p<0.05$), the interaction between cash outflow and family characteristics (family financing management competency) has a p-value of 0.000 ($p<0.05$), while the interaction between liquidity and family characteristics (family financial management competency) has a p-value of 0.000 (p-value<0.05).

This implies that the moderating variable, family characteristics (family financial management competency) has significant moderating influence on the cash management measures (cash transactions, cash outflows and liquidity) and revenues of family businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05.The moderated regression model is summarized by equation 4.16.

$$Y = 4.180 + 0.439X_1 - 0.359X_2 + 0.049X_1Z - 0.039X_2Z + 0.040X_3Z \quad \text{Equation 4.16}$$

Where,

Y = Revenues, X_1 – Cash Transactions, X_2 – Cash Outflows and X_3 –Liquidity, X_1Z – Cash Transactions_Family Financial Management Competency, X_2Z – Cash Outflows_Family Financial Management Competency and X_3Z –Liquidity_Family Financial Management Competency.

It was concluded that there is statistically significant relationship between cash management measures (cash transactions, cash outflows and liquidity) and revenues of family businesses in Kenya. There is statistically significant moderation effect of family characteristics (family financial management competency) on the cash management measures (cash transactions, cash outflows and liquidity) and revenues of family businesses. Thus, increased levels of cash management by family businesses are associated with increased growth of family businesses in Kenya.

4.10.10 Regression Results of Cash Management and Change in Net Worth

To establish the influence of cash management measures (cash transactions, cash outflows and liquidity) on the change in net-worth of family businesses in Kenya, the following hypothesis was tested:

H_{01}: There is no significant influence of cash management (cash transactions, cash outflows and liquidity) on the growth (change in net-worth) of family businesses in Kenya.

Regression analysis was conducted to empirically determine whether cash management measures (cash transactions, cash outflows and liquidity) had any significant influence on the change in net-worth of family businesses in Kenya.

Table 4.91: Regression Coefficients of Cash Management and Change in net-worth

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.050	.228		8.991	.000
	Cash Transactions (X_1)	.026	.065	.023	.398	.000
	Cash Outflows (X_2)	-.070	.066	-.091	-1.061	.000
	Liquidity (X_3)	.609	.074	.660	8.230	.000

a. Dependent Variable: Change in net-worth

Table 4.91 displays the regression coefficients results of the cash management measures (cash transactions, cash outflows and liquidity). Cash transactions (supported by β = 0.023, p-value = 0.000), cash outflows (supported by β = -0.091, p-value = 0.000), and liquidity (supported by β = 0.660, p-value = 0.000) are statistically significant in explaining change in net-worth of family businesses in Kenya.

The influence of cash management measures (cash transactions, cash outflows and liquidity) is therefore significant indicating that increased levels of cash management by family businesses, increases the change in net-worth generated from their businesses. Thus, higher levels of cash management in family businesses are associated with increased growth of family businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05. The regression model is summarized by equation 4.17.

$$Y = 2.050 + 0.026X_1 - 0.070X_2 + 0.609X_3 \ldots\ldots\ldots\ldots\ldots \quad \text{Equation 4.17}$$

Where,

Y = Change in net-worth, X_1 – Cash Transactions, X_2 – Cash Outflows and X_3 – Liquidity

To determine the moderation effect of family characteristics (family financial management competency) on cash management measures (cash transactions, cash outflows and liquidity) and change in net-worth of family businesses, the following hypothesis was tested:

H_{01}: There is no significant moderating effect of family characteristics (family financial management competency) on financial management practices (cash management) and change in net-worth of family businesses in Kenya.

Moderated regression analysis was also conducted to empirically determine whether cash management (cash transactions, cash outflows and liquidity) with family characteristics (family financial management competency) had any significant influence on the change in net-worth of family businesses in Kenya.

Table 4.92: Moderated Regression Coefficients of Cash Management and Change in net-worth

Model	Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.475	.023		194.565	.000
	Cash Transactions (X_1)	.026	.065	.023	.398	.000
	Cash Outflows (X_2)	-.070	.066	-.091	-1.061	.000
	Liquidity (X_3)	.609	.074	.660	8.230	.000
	Cash Transaction_Family Financial Management Competency (X_1Z)	.002	.007	.017	.286	.000
	Cash Outflow_Family Financial Management Competency (X_2Z)	-.009	.007	-.106	-1.286	.000
	Liquidity_Family Financial Management Competency (X_3Z)	.067	.008	.650	8.375	.000

a. Dependent Variable: Change in net-worth

Table 4.92 displays the regression coefficients results of the moderated cash management measures. The interaction variable between cash transaction and family characteristics (family financial management competency) has a p-value of 0.000 ($p<0.05$), the interaction between cash outflow and family characteristics (family financial management competency) has a p-value of 0.000 ($p<0.05$), while the interaction between liquidity and family characteristics (family financial management competency) has a p-value of 0.000 (p-value<0.05).

This implies that the moderating variable, family characteristics (family financial management competency) has significant moderating influence on the cash management measures (cash transactions, cash outflows and liquidity) and change in net-worth of family businesses.

Therefore, the null hypothesis is rejected since $\beta \neq 0$ and p-value<0.05.The moderated regression model is summarized by equation 4.18.

$$Y = 4.475 + 0.026X_1 - 0.070X_2 + 0.609X_3 + 0.002X_1Z - 0.009X_2Z + 0.067X_3Z$$ ..... Equation 4.18

Where,

Y = Change in net-worth, X_1 – Cash Transactions, X_2 – Cash Outflows and X_3 – Liquidity, X_1Z – Cash Transactions_Family Financial Management Competency, X_2Z – Cash Outflows_Family Financial Management Competency and X_3Z – Liquidity_Family Financial Management Competency

It was concluded that there is statistically significant relationship between cash management measures (cash transactions, cash outflows and liquidity) and change in net-worth of family businesses in Kenya. There is statistically significant moderation effect of family characteristics (family financial management competency) on the cash management measures (cash transactions, cash outflows and liquidity) and change in net-worth of family businesses. Thus, increased levels of cash management by family businesses are associated with increased growth of family businesses in Kenya.

4.11 Summary of Study Variables

The study sought to determine the moderating effect of family characteristics (family financial management competency) on financial management practices and growth (in revenues and change of net-worth) of family businesses in Kenya. Financial management practices was assessed by four independent variables (measures of financial literacy, financing, allocation of financial resources and cash management)while growth of family businesses was assessed by revenues and change in net-worth. Correlation and regression analyses were used to determine the relationship and strength of the financial management measures on the growth measures of family businesses to draw conclusions on this study.

4.11.1 Overall Coefficient Matrix Results

Pearson bivariate correlation coefficient was used to compute the correlation between the dependent variable, that is, growth (in terms of revenues and change in net-worth) of family businesses, the moderating variable, family characteristics (family financial management competency) and all the independent variables. The independent variables in this study were financial literacy (financial-economic knowledge and access to financial information), financing (access to credit and financial planning and leverage), allocation of financial resources (allocation of funds and income and control of funds) and cash management (cash transactions, cash outflows and liquidity).

Table 4.93 displays the overall correlation matrix showing the correlation analysis with varied degree of interrelationship between all the independent variable measures, the moderating variable and the dependent variable measures. The Pearson correlation coefficient was generated at 0.01 significance level (2-tailed).

Table 4.93: Overall Correlation Matrix

Variable		FEK	AFI	AC	FPL	AIF	CF	CT	COF	L	FFMC	REV	CNW
Financial-economic Knowledge (FEK)	Pearson Correlation	1											
	Sig. (2-tailed)												
	N	309											
Access to Financial Information (AFI)	Pearson Correlation	.623**	1										
	Sig. (2-tailed)	.000											
	N	309	309										
Access to Credit (AC)	Pearson Correlation	.588**	.763**	1									
	Sig. (2-tailed)	.000	.000										
	N	309	309	309									
Financial Planning & Leverage (FPL)	Pearson Correlation	.551**	.708**	.855**	1								
	Sig. (2-tailed)	.000	.000	.000									
	N	309	309	309	309								
Allocation of Funds & Income (AIF)	Pearson Correlation	.607**	.433**	.494**	.545**	1							
	Sig. (2-tailed)	.000	.000	.000	.000								
	N	309	309	309	309	309							
Control of Funds (CF)	Pearson Correlation	.471**	.694**	.640**	.905**	.479**	1						
	Sig. (2-tailed)	.000	.000	.000	.000	.000							
	N	309	309	309	309	309	309						
Cash Transactions (CT)	Pearson Correlation	.374**	.242**	.349**	.325**	.354**	.210**	1					
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000						
	N	309	309	309	309	309	309	309					
Cash Outflows (COF)	Pearson Correlation	.157**	.334**	.333**	.350**	.171**	.333**	.631**	1				
	Sig. (2-tailed)	.006	.000	.000	.000	.003	.000	.000					
	N	309	309	309	309	309	309	309	309				
Liquidity (L)	Pearson Correlation	.311**	.531**	.480**	.500**	.297**	.490**	.556**	.819**	1			
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000				
	N	309	309	309	309	309	309	309	309	309			
Family Financial Management Competency(FFMC)	Pearson Correlation	.357**	.373**	.386**	.398**	.343**	.386**	.331**	.279**	.384**	1		
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000			
	N	309	309	309	309	309	309	309	309	309	309		
Revenues (REV)	Pearson Correlation	.589**	.440**	.622**	.583**	.580**	.431**	.374**	.131*	.276**	.344**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.021	.000	.000		
	N	309	309	309	309	309	309	309	309	309	309	616	
Change in Net Worth (CNW)	Pearson Correlation	.447**	.668**	.632**	.678**	.374**	.670**	.333**	.464**	.598**	.480**	.464**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	N	309	309	309	309	309	309	309	309	309	309	309	309

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

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

KEY: FEK = Financial-economic Knowledge, AFI = Access to Financial Information, AC = Access to Credit, FPL = Financial Planning & Leverage, AIF = Allocation of Funds & Income, CF = Control of Funds, CT = Cash Transactions, COF = Cash Outflows, L = Liquidity, FFMC = Family Financial Management Competency, REV = Revenues, CNW = Change in Net-worth

The output indicates a strong positive relationship between financial literacy measures (financial-economic knowledge and access to financial information) and growth measures (revenues and change in net-worth) of family businesses in Kenya, p =0.000 (p-value<0.01).There was a strong positive relationship between financing measures (access to credit and financial planning and leverage) and growth measures (revenues and change in net-worth) of family businesses in Kenya, p =0.000 (p-value<0.01).

There was a strong positive relationship between allocation of financial resources measures (allocation of funds and income and control of funds) and growth measures (revenues and change in net-worth) of family businesses in Kenya, p =0.000 (p-value<0.01). There was a moderate positive relationship between cash management measures (cash transactions, cash outflows, liquidity) and growth measures (revenues and change in net-worth) of family businesses in Kenya, p =0.000 (p-value<0.01). There was a moderate positive relationship between family characteristics (family financial management competency)and growth measures (revenues and change in net-worth) of family businesses in Kenya, p =0.000 (p-value<0.01).

The results therefore, imply that financial literacy, financing, allocation of financial resources, cash management and family financial management competency significantly influenced growth of family businesses in Kenya.

4.11.2 Overall Goodness-of-fit Model Results

The results on Table 4.94 showed that measures of financial literacy, financing, allocation of financial resources and cash management had explanatory power on revenues of family businesses as it accounted for 55.3% of its variability (R Square = 0.553) as indicated in Model 1, hence the model is a good fit for the data. This implies a strong positive relationship between financial management practices and growth (that is, revenues) of family businesses.

Table 4.94: Overall Model Summary on Revenues

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.743[a]	.553	.539	.28269
2	.736[b]	.541	.527	.28628

a. Predictors: (Constant), Liquidity, Allocation of Funds & Income, Cash Transactions, Access to Credit, Financial-economic Knowledge, Control of Funds, Access to Financial Information, Cash Outflows, Financial Leverage

b. Predictors: (Constant), Liquidity_Family Financial Management Competency, Allocation of Funds&Income_Family Financial Management Competency, Control of Funds_Family Financial Management Competency, Cash Transactions_Family Financial Management Competency, Financial-economic Knowledge_ Family Financial Management Competency, Access to Credit_Family Financial Management Competency, Access to Financial Information_ Family Financial Management Competency, Cash Outflows_Family Financial Management Competency, Financial Planning &Leverage_Family Financial Management Competency

c. Dependent Variable: Revenues

With the moderating variable, family financial management competency, the explanatory power of measures of financial literacy, financing, allocation of financial resources and cash management did not change significantly when family financial management competency was incorporated into the model (R Square = 0.541) hence the model is a good fit for the data.

This implies that the moderating variable, family characteristics (family financial management competency) had not weakened the relationship between measures of financial management practices and revenues of family businesses.

The results on Table 4.95 showed that measures of financial literacy, financing, allocation of financial resources and cash management had explanatory power on change in net-worth of family businesses as it accounted for 59.7% of its variability (R Square = 0.597). This implies a strong positive relationship between financial management practices and growth (change in net-worth) of family businesses.

Table 4.95: Overall Model Summary on Change in Net-worth

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.773[a]	.597	.585	.30527
2	.757[b]	.574	.561	.31395

a. Predictors: (Constant), Liquidity, Allocation of Funds & Income, Cash Transactions, Access to Credit, Financial-economic Knowledge, Control of Funds, Access to Financial Information, Cash Outflows, Financial Leverage

b. Predictors: (Constant), Liquidity_Family Financial Management Competency, Allocation of Funds & Income_Family Financial Management Competency, Control of Funds_Family Financial Management Competency, Cash Transactions_Family Financial Management Competency, Financial-economic Knowledge_ Family Financial Management Competency, Access to Credit_Family Financial Management Competency, Access to Financial Information_ Family Financial Management Competency, Cash Outflows_Family Financial Management Competency, Financial Planning & Leverage_Family Financial Management Competency

c. Dependent Variable: Change in Net-worth

With the moderating variable, family characteristics (family financial management competency), the explanatory power of measures of financial literacy, financing, allocation of financial resources and cash management did not change significantly when family characteristics (family financial management competency) was incorporated into the model (R Square = 0.574). This implies that the moderating variable, family financial management competency had not weakened the relationship between measures of financial management practices and change in net-worth of family businesses.

4.11.3 Overall Analysis of Variance (ANOVA) Results

Table 4.96 presents the overall analysis of variance of the study. The results reveal that significant relationship exists between financial management practices (measures of financial literacy, financing, allocation of financial resources, cash management) and

revenues of family businesses (F = 41.040, p = 0.000) as indicated in Model 1. When moderating variable, family financial management competency, was incorporated, the p-value is less than 0.05 as indicated in Model 2.

Table 4.96: Overall ANOVA Results – Revenues

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	29.517	9	3.280	41.040	.000[b]
	Residual	23.894	299	.080		
	Total	53.410	308			
2	Regression	28.905	9	3.212	39.187	.000[c]
	Residual	24.505	299	.082		
	Total	53.410	308			

a. Dependent Variable: Revenues

b. Predictors: (Constant), Liquidity, Allocation of Funds & Income, Cash Transactions, Access to Credit, Financial-economic Knowledge, Control of Funds, Access to Financial Information, Cash Outflows, Financial Planning & Leverage

c. Predictors: (Constant), Liquidity_Family Financial Management Competency, Allocation of Funds & Income_Family Financial Management Competency, Control of Funds_Family Financial Management Competency, Cash Transactions_Family Financial Management Competency, Financial-economic Knowledge_ Family Financial Management Competency, Access to Credit_Family Financial Management Competency, Access to Financial Information_ Family Financial Management Competency, Cash Outflows_Family Financial Management Competency, Financial Planning & Leverage_Family Financial Management Competency

From the significance value, the financial management practices (measures of financial literacy, financing, allocation of financial resources and cash management) are indeed different from each other and they affect the revenues of family businesses in a different manner. This implies that there is still a significant relationship that exists between financial management practices (measures of financial literacy, financing, allocation of financial resources, cash management), family financial management competency and

revenues of family businesses. Thus, indicating that the predictor variables explain the variation in the dependent variables which is measures of financial literacy, financing, allocation of financial resources, cash management and family financial management competency on the revenues of family businesses.

Table 4.97: Overall ANOVA Results – Change in Net-worth

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	41.244	9	4.583	49.174	.000[b]
	Residual	27.865	299	.093		
	Total	69.108	308			
2	Regression	39.637	9	4.404	44.681	.000[c]
	Residual	29.472	299	.099		
	Total	69.108	308			

a. Dependent Variable: Change in Net-worth

b. Predictors: (Constant), Liquidity, Allocation of Funds & Income, Cash Transactions, Access to Credit, Financial-economic Knowledge, Control of Funds, Access to Financial Information, Cash Outflows, Financial Planning & Leverage

c. Predictors: (Constant), Liquidity_Family Financial Management Competency, Allocation of Funds & Income_Family Financial Management Competency, Control of Funds_Family Financial Management Competency, Cash Transactions_Family Financial Management Competency, Financial-economic Knowledge_ Family Financial Management Competency, Access to Credit_Family Financial Management Competency, Access to Financial Information_ Family Financial Management Competency, Cash Outflows_Family Financial Management Competency, Financial Planning & Leverage_Family Financial Management Competency

Table 4.97 presents the overall analysis of variance of the study. The results reveal that significant relationship exists between financial management practices (measures of financial literacy, financing, allocation of financial resources, cash management) and change in net-worth of family businesses ($F = 49.174$, $p = 0.000$) as indicated in Model

1. When moderating variable, family financial management competency, was incorporated, the p-value is less than 0.05 as indicated in Model 2.

From the significance value, the financial management practices (measures of financial literacy, financing, allocation of financial resources and cash management) are indeed different from each other and they affect the change in net-worth of family businesses in a different manner. This implies that there is still a significant relationship that exists between financial management practices (measures of financial literacy, financing, allocation of financial resources, cash management), family financial management competency and change in net-worth of family businesses. Thus, indicating that the predictor variables explain the variation in the dependent variables which is measures of financial literacy, financing, allocation of financial resources, cash management and family financial management competency on the change in net-worth of family businesses.

4.11.4 Overall Multiple Regression Results on Revenues

Multiple regression analysis was performed to assess the relationship between growth (in revenues) of family businesses and the independent variables (measures of financial literacy, financing, allocation of financial resources and cash management.

Table 4.98 presents multiple regression models where the regression results of measures of financial literacy, financing, allocation of financial resources and cash management had significant influence on the growth (revenues) of family businesses with p-values less than 0.05 as indicated in Model 1.

Table 4.98: Overall Regression Coefficients of Revenues

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta		
1	(Constant)	.466	.214		2.176	.031
	Financial-economic Knowledge (X_1)	.181	.051	.213	3.549	.000
	Access to Financial Information (X_2)	-.119	.058	-.171	-2.052	.040
	Access to Credit (X_3)	.390	.135	.371	2.889	.004
	Financial Planning &Leverage (X_4)	.194	.196	.200	.991	.023
	Allocation of Funds & Income (X_5)	.226	.054	.220	4.185	.000
	Control of Funds (X_6)	-.055	.108	-.076	-.509	.009
	Cash Transactions (X_7)	.174	.056	.179	3.107	.002
	Cash Outflows (X_8)	-.159	.052	-.235	-3.057	.002
	Liquidity (X_9)	.071	.063	.087	1.127	.025

a. Dependent Variable: Revenues

The regression model is summarized by equation 4.19.

$Y = 0.466 + 0.181X_1 - 0.119X_2 + 0.390X_3 + 0.194X_4 + 0.226X_5 - 0.55X_6 + 0.174X_7 - 0.159X_8 + 071X_9$……………………………..Equation 4.19

Where,

Y = Revenues, X_1 = Financial-economic Knowledge, X_2 = Access to Financial Information, X_3 = Access to Credit, X_4 = Financial Planning & Leverage, X_5 = Allocation of Funds & Income, X_6 = Control of Funds, X_7 = Cash Transactions, X_8 = Cash Outflows, X_9 = Liquidity

The influence of financial management practices (measures of financial literacy, financing, allocation of financial resources and cash management) is therefore significant indicating that increased levels of financial-economic knowledge, access to credit, financial planning and leverage, allocation of financial resources, control of funds, cash transactions and liquidity, while decreased levels of access to financial

information and cash outflows resulted in increased revenues generated from family businesses in Kenya.

Table 4.99: Moderated Overall Regression Coefficients of Revenues

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.172	.017		245.411	.000
	Financial-economic Knowledge (X_1)	.181	.051	.213	3.549	.000
	Access to Financial Information (X_2)	-.119	.058	-.171	-2.052	.040
	Access to Credit (X_3)	.390	.135	.371	2.889	.004
	Financial Planning &Leverage (X_4)	.194	.196	.200	.991	.023
	Allocation of Funds &Income (X_5)	.226	.054	.220	4.185	.000
	Control of Funds (X_6)	-.055	.108	-.076	-.509	.009
	Cash Transactions (X_7)	.174	.056	.179	3.107	.002
	Cash Outflows (X_8)	-.159	.052	-.235	-3.057	.002
	Liquidity (X_9)	.071	.063	.087	1.127	.025
	Financial-economic Knowledge_Family Financial Management Competency(X_1Z)	.018	.006	.201	3.001	.001
	Access to Financial Information_Family Financial Management Competency(X_2Z)	-.014	.007	-.171	-2.001	.045
	Access to Credit_Family Financial Management Competency (X_3Z)	.046	.016	.400	2.875	.004
	Financial Planning & Leverage_Family Financial Management Competency(X_4Z)	.015	.023	.139	.652	.005
	Allocation of Funds & Income_Family Financial Management Competency(X_5Z)	.019	.006	.175	3.167	.002
	Control of Funds_Family Financial Management Competency(X_6Z)	.004	.013	.004	.308	.007
	Cash Transactions_Family Financial Management Competency(X_7Z)	.019	.006	.187	3.166	.002
	Cash Outflows_Family Financial Management Competency(X_8Z)	-.021	.006	-.287	-3.501	.000
	Liquidity_Family Financial Management Competency(X_9Z)	.010	.007	.111	1.428	.016

a. Dependent Variable: Revenues

Table 4.99 displays the overall regression coefficients results of the moderated measures of financial literacy, financing, allocation of financial resources and cash management. This implies that the moderating variable, family characteristics (family financial management competency, has significant moderating influence on the measures of financial literacy, financing, allocation of financial resources and cash management and revenues of family businesses.

The moderated regression model is summarized by equation 4.20.

$Y = 4.172 + 0.466 + 0.181X_1 – 0.119X_2 + 0.390X_3 + 0.194X_4 + 0.226X_5 – 0.55X_6 + 0.174X_7 – 0.159X_8 + 071X_9 + 0.018X_1Z – 0.014X_2Z + 0.046X_3Z + 0.015X_4Z + 0.019X_5Z + 0.004X_6Z + 0.019X_7Z – 0.021X_8Z + 0.010X_9Z$…………………………………………………….. Equation 4.20

Where,

Y = Revenues, X_1 = Financial-economic Knowledge, X_2 = Access to Financial Information, X_3 = Access to Credit, X_4 = Financial Planning & Leverage, X_5 = Allocation of Funds & Income, X_6 = Control of Funds, X_7 = Cash Transactions, X_8 = Cash Outflows, X_9 = Liquidity, X_1Z = Financial-economic Knowledge_Family Financial Management Competency, X_2Z = Access to Financial Information_Family Financial Management Competency, X_3Z = Access to Credit_Family Financial Management Competency, X_4Z = Financial Planning & Leverage_Family Financial Management Competency, X_5Z = Allocation of Funds & Income_Family Financial Management Competency, X_6Z = Control of Funds_Family Financial Management Competency, X_7Z = Cash Transactions_Family Financial Management Competency, X_8Z = Cash Outflows_Family Financial Management Competency, X_9Z = Liquidity_Family Financial Management Competency

It was concluded that there is statistically significant relationship between financial management practices (measures of financial literacy, financing, allocation of financial resources and cash management) and revenues of family businesses.

There is statistically significant moderation effect of family characteristics (family financial management competency) on financial management practices (measures of financial literacy, financing, allocation of financial resources and cash management) and revenues of family businesses in Kenya.

4.11.5 Overall Multiple Regression Results on Change in Net-worth

Multiple regression analysis was performed to assess the relationship between growth (change in net-worth) of family businesses and the independent variables (measures of financial literacy, financing, allocation of financial resources and cash management.

Table 4.100: Overall Regression Coefficients of Change in net-worth

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.806	.231		3.489	.001
	Financial-economic Knowledge (X_1)	.027	.055	.028	.491	.022
	Access to Financial Information (X_2)	.134	.062	.170	2.162	.032
	Access to Credit (X_3)	.270	.146	.226	1.849	.045
	Financial Planning &Leverage (X_4)	-.130	.212	-.117	-.613	.040
	Allocation of Funds & Income (X_5)	-.031	.058	-.027	-.534	.029
	Control of Funds (X_6)	.321	.117	.387	2.744	.006
	Cash Transactions (X_7)	.012	.060	.011	.199	.044
	Cash Outflows (X_8)	.054	.056	.070	.964	.038
	Liquidity (X_9)	.189	.068	.205	2.779	.006

a. Dependent Variable: Change in Net-worth

Table 4.100 presents multiple regression models where the regression results of measures of financial literacy, financing, allocation of financial resources and cash management had significant influence on the growth (change in net-worth) of family businesses with p-values less than 0.05.

The regression model is summarized by equation 4.21.

$$Y = 0.806 + 0.027X_1 + 0.134X_2 + 0.270X_3 - 0.130X_4 - 0.031X_5 + 0.321X_6 + 0.012X_7 - 0.054X_8 + 0.189X_9 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\text{Equation 4.21}$$

Where,

Y = Change in Net-worth, X_1 = Financial-economic Knowledge, X_2 = Access to Financial Information, X_3 = Access to Credit, X_4 = Financial Planning & Leverage, X_5 = Allocation of Funds & Income, X_6 = Control of Funds, X_7 = Cash Transactions, X_8 = Cash Outflows, X_9 = Liquidity

The influence of financial management practices (that is, measures of financial literacy, financing, allocation of financial resources and cash management) is therefore significant indicating that increased levels of financial-economic knowledge, access to credit, access to financial information, control of funds, cash transactions and liquidity, while decreased levels of financial planning and leverage, allocation of financial resources and cash outflows resulted in increased change in net-worth from family businesses in Kenya.

Table 4.101 displays the overall regression coefficients results of the moderated measures of financial literacy, financing, allocation of financial resources and cash management. This implies that the moderating variable, family characteristics (that is, family financial management competency), has significant moderating influence on the measures of financial literacy, financing, allocation of financial resources and cash management and change in net-worth of family businesses.

Table 4.101: Moderated Overall Regression Coefficients of Change in net-worth

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	4.450	.018		241.665	.000
	Financial-economic Knowledge (X_1)	.027	.055	.028	.491	.022
	Access to Financial Information (X_2)	.134	.062	.170	2.162	.032
	Access to Credit (X_3)	.270	.146	.226	1.849	.045
	Financial Planning &Leverage (X_4)	-.130	.212	-.117	-.613	.040
	Allocation of Funds & Income (X_5)	-.031	.058	-.027	-.534	.029
	Control of Funds (X_6)	.321	.117	.387	2.744	.006
	Cash Transactions (X7)	.012	.060	.011	.199	.044
	Cash Outflows (X_8)	.054	.056	.070	.964	.038
	Liquidity (X_9)	.189	.068	.205	2.779	.006
	Financial-economic Knowledge_Family Financial Management Competency (X_1Z)	.001	.006	.013	.167	.030
1	Access to Financial Information_Family Financial Management Competency (X_2Z)	.017	.007	.191	2.429	.020
	Access to Credit_Family Financial Management Competency (X_3Z)	.033	.017	.251	1.941	.048
	Financial Planning & Leverage_Family Financial Management Competency (X_4Z)	-.021	.025	-.169	-.840	.041
	Allocation of Funds & Income_Family Financial Management Competency (X_5Z)	-.006	.007	-.048	-.857	.037
	Control of Funds_Family Financial Management Competency (X_6Z)	.042	.014	.432	3.002	.003
	Cash Transactions_Family Financial Management Competency (X_7Z)	.002	.007	.013	.286	.020
	Cash Outflows_Family Financial Management Competency (X_8Z)	.003	.006	.033	.499	.006
	Liquidity_Family Financial Management Competency (X_9Z)	.020	.008	.195	2.502	.010

a. Dependent Variable: Change in Net-worth

The overall moderated regression model is summarized by equation 4.22.

$$Y = 4.450 + 0.027X_1 + 0.134X_2 + 0.270X_3 - 0.130X_4 - 0.031X_5 + 0.321X_6 + 0.012X_7 - 0.054X_8 + 0.189X_9 + 0.003X_1Z + 0.017X_2Z + 0.033X_3Z - 0.021X_4Z + 0.006X_5Z + 0.042X_6Z + 0.002X_7Z + 0.003X_8Z + 0.020X_9Z \quad \text{Equation 4.22}$$

Where,

Y = Change in net-worth, X_1 = Financial-economic Knowledge, X_2 = Access to Financial Information, X_3 = Access to Credit, X_4 = Financial Planning & Leverage, X_5 = Allocation of Funds & Income, X_6 = Control of Funds, X_7 = Cash Transactions, X_8 = Cash Outflows, X_9 = Liquidity, X_1Z = Financial-economic Knowledge_Family Financial Management Competency, X_2Z = Access to Financial Information_Family Financial Management Competency, X_3Z = Access to Credit_Family Financial Management Competency, X_4Z = Financial Planning & Leverage_Family Financial Management Competency, X_5Z = Allocation of Funds & Income_Family Financial Management Competency, X_6Z = Control of Funds_Family Financial Management Competency, X_7Z = Cash Transactions_Family Financial Management Competency, X_8Z = Cash Outflows_Family Financial Management Competency, X_9Z = Liquidity_Family Financial Management Competency.

It was concluded that there is statistically significant relationship between financial management practices (measures of financial literacy, financing, allocation of financial resources and cash management) and change in net-worth of family businesses. There is statistically significant moderation effect of family characteristics (family financial management competency) on financial management practices (measures of financial literacy, financing, allocation of financial resources and cash management) and change in net-worth of family businesses in Kenya.

This research therefore, results in rejection of all the null hypotheses of the study as indicated on Table 4.102

Table 4.102: Summary of Research Hypotheses

Null Hypothesis	Comments
1. There is no significant influence of financial literacy on the growth of family businesses in Kenya.	Rejected
2. There is no significant influence of financing on the growth of family businesses in Kenya.	Rejected
3. There is no significant influence of allocation of financial resources on the growth of family businesses in Kenya.	Rejected
4. There is no significant influence of cash management on the growth of family businesses in Kenya.	Rejected
5. There is no significant moderating effect of family characteristics on the growth of family businesses in Kenya.	Rejected

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the research findings and provides conclusion and recommendations in line with the topic of study that is to determine the moderation effect of family characteristics on financial management practices and growth of family businesses in Kenya.

5.2 Summary

The overall objective of this study was to determine the moderation effect of family characteristics on financial management practices and growth of family businesses in Kenya. In particular, the specific objectives of the study were; to determine the influence of financial literacy, financing, allocation of financial resources, cash management, and the moderation effect of family characteristics (family financial management competency) on financial management practices and growth of family businesses in Kenya.

The study collected and presented data in chapter four with specific attention given to the objectives and research questions of the study which were used as units of analysis. Theoretical and empirical literature were used to compare the results of the study with previous studies. The study targeted registered family businesses operating within Mombasa County. Target population of 48,187 licensed and registered businesses as at December 2015 was used to derive the sample size of 397 using Slovin's formula. A pilot study was conducted to test reliability of the research instrument using a sample of thirty firms, selected randomly. In line with the findings presented and discussed in the previous chapter, the study derived the following findings.

5.2.1 Influence of Financial Literacy on the Growth of Family Businesses

The first objective of the study sought to determine the influence of financial literacy on the growth of family businesses in Kenya. The indicators of financial literacy were financial-economic knowledge and access to financial information while measures of growth were revenues and change in net-worth. Descriptive statistical methods were used to arrive at the results. Financial-economic knowledge and access to financial information greatly influenced revenues and change in net-worth of family businesses in Kenya. Inferential statistical methods also gave findings and deductions. Findings on correlation and regression analysis indicated that there was a significant and strong positive association between measures of financial literacy(financial-economic knowledge and access to financial information)and revenues and change in net-worth of family businesses. The financial literacy indicators were found to be statistically significant in explaining the influence of financial literacy on the growth of family businesses in Kenya.

5.2.2 Influence of Financing on the Growth of Family Businesses

The second objective of the study sought to analyze the influence of financing on the growth of family businesses in Kenya. The indicators of financing were access to credit and financial planning and leverage. Descriptive statistical methods were used to arrive at the results. Access to credit and financial planning and leverage greatly influenced revenues and change in net-worth of family businesses in Kenya. Inferential statistical methods also gave findings and deductions. Findings on correlation and regression analysis indicated that there was a significant and strong positive association between financing measures (access to credit and financial planning and leverage) and revenues and change in net-worth of family businesses. The financing indicators were found to be statistically significant in explaining the influence of financing on the growth of family businesses in Kenya.

5.2.3 Influence of Allocation of Financial Resources on the Growth of Family Businesses

The third objective of the study sought to evaluate the influence of allocation of financial resources on the growth of family businesses in Kenya. The indicators of allocation of financial resources were allocation of funds and income, and control of funds. Descriptive statistical methods were used to arrive at the results. Allocation of funds and income, and control of funds greatly influenced revenues and change in net-worth of family businesses in Kenya. Inferential statistical methods also gave findings and deductions. Findings on correlation and regression analysis indicated that there was a significant and strong positive association between allocation of financial resources measures (allocation of funds and income, and control of funds) and revenues and change in net-worth of family businesses. The allocation of financial resources indicators were found to be statistically significant in explaining the influence of allocation of financial resources on the growth of family businesses in Kenya.

5.2.4 Influence of Cash Management on the Growth of Family Businesses

The fourth objective of the study sought to establish the influence of cash management on the growth of family businesses in Kenya. The indicators of cash management were cash transactions, cash outflows and liquidity. Descriptive statistical methods were used to arrive at the results. Cash transactions, cash outflows and liquidity greatly influenced revenues and change in net-worth of family businesses in Kenya. Inferential statistical methods also gave findings and deductions. Findings on correlation and regression analysis indicated that there was a significant and moderate positive association between cash management and growth of family businesses. The cash management indicators were found to be statistically significant in explaining the influence of cash management on the growth of family businesses in Kenya.

5.2.5 Moderating Effect of Family Characteristics on the Growth of Family Businesses

The fifth objective of the study sought to determine the moderation effect of family characteristics (family financial management competency) on financial management practices (measures of financial literacy, financing, allocation of financial resources and cash management)and growth (revenues and change in net-worth) of family businesses in Kenya. Descriptive statistical methods were used to reach at the results.

The moderated regression analysis showed that there was statistically significant moderation effect of family characteristics (family financial management competency) on financial management practices (measures of financial literacy, financing, allocation of financial resources and cash management). Family characteristics (family financial management competency) greatly influenced revenues and change in net-worth of family businesses in Kenya. Inferential statistical methods also gave findings and deductions. Findings on correlation and regression analyses indicated that there was a significant positive association between family characteristics(family financial management competency) and measures of financial literacy, financing, allocation of financial resources and cash management of family businesses. Therefore, family characteristics (family financial management competency) as a moderating variable, was found to be statistically significant in explaining the influence of financial management practices and growth of family businesses in Kenya.

5.3 Conclusions

The conclusions were based on the objectives of the study, that is, the moderation effect of family characteristics (family financial management competency) on the financial management practices and growth of family businesses in Kenya.

5.3.1 Financial Literacy and Growth of Family Businesses

It can be concluded that financial literacy measures (financial-economic knowledge and access to financial information) had significant and positive influence on the growth (in revenues and change in net-worth) of family businesses in Kenya. The regression results reveal statistically significant positive linear relationship between financial-economic knowledge and access to financial information and revenues and change in net-worth of family businesses in Kenya. This was attributed by family members' prior and existing knowledge on financial management, their ability to undertake financial analysis and interpret them, and continuously accessing financial information to make better financial decision. There was statistically significant moderation effect of family characteristics (family financial management competency) on financial literacy measures (financial-economic knowledge and access to financial information) and revenues and change in net-worth of family businesses. It can therefore be concluded that financial literacy greatly influences the growth of family businesses in Kenya.

5.3.2 Financing and Growth of Family Businesses

It can be concluded that financing measures (access to credit and financial planning and leverage) has a significant and positive influence on the growth (revenues and change in net-worth) of family businesses in Kenya. The regression results reveal statistically significant positive linear relationship between financing (access to credit and financial planning and leverage) and revenues and change in net-worth) of family businesses in Kenya. This was attributed to access to credit for business operations and maintaining adequate levels of financial leverage (firms' capital structure) to avoid bankruptcy and maintain control of the business. There was statistically significant moderation effect of family characteristics (family financial management competency) on financing measures (access to finance and financial planning and leverage) and revenues and change in net-worth of family businesses. It can therefore be concluded that financing greatly influences the growth of family businesses in Kenya.

5.3.3 Allocation of Financial Resources and Growth of Family Businesses

It can be concluded that allocation of financial resources measures (allocation of funds and income and control of funds) had a significant and positive influence on the growth (revenues and change in net-worth of family businesses in Kenya. The regression results reveal statistically significant positive linear relationship between allocation of financial resources (allocation of funds and income and control of funds) and revenues and change in net-worth of family businesses in Kenya. This was as a result of proper allocation of funds and income, and control of funds flow through budgeting and cash flow management. There was statistically significant moderation effect of family characteristics (family financial management competency) on allocation of financial resources measures (allocation of funds and income and control of funds) and revenues and change in net-worth of family businesses. It can therefore be concluded that allocation financial resources greatly influences the growth of family businesses in Kenya.

5.3.4 Cash Management and Growth of Family Businesses

It can be concluded that cash management measures (cash transaction, cash outflows, and liquidity) had a significant and positive influence of on the growth (revenues and change in net-worth of family businesses. The regression results reveal statistically significant positive linear relationship between cash management measures (cash transaction, cash outflows, and liquidity) and revenues and change in net-worth of family businesses in Kenya. This was as a result of sales made through cash transactions, management of credits in terms of prompt payments to suppliers and maintaining enough levels of cash (liquidity) for financial emergencies. There was statistically significant moderation effect of family characteristics (family financial management competency) on cash management measures (cash transaction, cash outflows, and liquidity) and revenues and change in net-worth of family businesses in Kenya. It can therefore be concluded that cash management greatly influences growth of family businesses in Kenya.

5.3.5 Family Characteristics and Growth of Family Businesses

It can be concluded that family characteristics (family financial management competency) had statistically significant moderation effect on all the financial management practices (measures of financial literacy, financing, allocation of financial resources and cash management)and growth (revenues and change in net-worth) of family businesses. The regression results revealed statistically significant positive linear relationship between the moderating variable, family characteristics (family financial management competency), and all the independent variables (measures of financial literacy, financing, allocation of financial resources and cash management) and growth (revenues and change in net-worth) of family businesses. The size of the family who are mostly engaged in family business operations and better understand the financial management of the businesses, their education levels acquired (financial or non-financial), and their entrepreneurial (economic) values were the main attributes of family characteristics (family financial management competency) in this study that influenced growth (revenues and change in net-worth) of family businesses in Kenya.

5.4 Recommendations

The recommendations were based on the objectives of the study, that is, Influence of financial management practices on the growth of family businesses in Kenya.

5.4.1 Financial Literacy and Growth of Family Businesses

It was concluded that financial literacy measures (financial-economic knowledge and access to financial information) greatly influenced the growth (in terms of revenues and change in net-worth) of family businesses in Kenya. These findings on family businesses extended the frontiers of knowledge by generating valuable insights for both academic and managerial action. Therefore, the results of this study are of interest to owners and managers of family businesses. The study showed that financial literacy was key to making better financial decisions which were assessed by managers' financial-economic

knowledge and their ability to access financial information which can be acquired through formal training. Therefore, it can be recommended that managers should be able to enhance their financial management practices through acquisition of financial information that is relevant for them to make informed financial decisions relating to their businesses.

5.4.2 Financing and Growth of Family Businesses

It was concluded that financing measures (access to credit and financial planning and leverage) greatly influenced the growth (in terms of revenues and change in net-worth) of family businesses in Kenya. For any business, family or non-family, access to credit or financing is important aspect to bridge the financial gap between the creditors and debtors as well as to increase the net worth of business assets. This study therefore, recommends business (family) managers to be able to understand financial market operations and adhere to the requirements placed by financial institutions when requesting for credit and be able to do proper financial planning and budgeting for their businesses. Business financing is key especially in achieving growth of family businesses as funds are allocated to projects/assets that increase the firms' value. It was noted from the study that financing was mostly done at less than 50% of the family business capital structure. This is recommended in order to avoid bankruptcy and maintain control of the firm.

5.4.3 Allocation of Financial Resources and Growth of Family Businesses

It was concluded that allocation financial resources (allocation of funds and income and control of funds) greatly influenced the growth (in terms of revenues and change in net-worth) of family businesses in Kenya. This study recommends for proper allocation of funds and income, and control of funds flow through budgeting and cash flow management that may result in the growth of family businesses. It is also recommended that funds obtained through financial institutions (commercial banks) should be optimally allocated to projects and assets that will increase the value of the firm hence

experience growth. Income (earnings) generated from the business to be used in clearing the most expensive debt before declaring any dividends or bonuses to shareholders. Proper financial planning and allocation of funds will lead to proper control of funds as financial tools are used e.g. budgets and cash flow statements.

5.4.4 Cash Management and Growth of Family Businesses

It was concluded that cash management (cash transaction, cash outflows, and liquidity) greatly influenced growth (revenues and change in net-worth of family businesses in Kenya. This was as a result of sales made through cash transactions, management of credits in terms of prompt payments to suppliers and maintaining enough levels of cash (liquidity) for financial emergencies. It can therefore be recommended that management should put stringent policies on cash management. As much as cash transactions are desired in family businesses, credit terms to loyal customers will increase business sales and revenues. It is also recommended that family businesses should refrain from holding too much cash for "family" emergencies. That will drain business cash flow in misappropriation of funds. Proper cash management will resultin maintaining optimum levels of cash purely for business purposes. This will eventually lead to continuous growth of such businesses.

5.5 Policy Recommendations

Family businesses, although passed on from generation to generation through succession, have unique features but operate just like any other business in the economy with financial goals (that is, maximizing profits or increasing value for the owners). This study would assist policy makers to separate "family" from business in terms of proper financial management of the business and to adhere to financial management practices required for running family businesses. That will, to a great extent, lead to less business failures in future as has been evident in the study area (Mombasa County) and other parts of Kenya.

5.6 Study's Contribution to Family Theory and Existing Knowledge

There is currently no framework or a theory of the family business to help researchers design adequate empirical research and to properly interpret the results of their investigations. Until recently, this developing academic field lacked depth in terms of theoretical foundations of the "Theory of the Family Firm". The findings of this study contribute to the existing body of knowledge but inclined towards family characteristics (family financial management competency) and financial management practices (financial literacy, financing, allocation of financial resources and cash management) influencing growth (in revenues and change in net-worth) of family businesses. Few studies had been done on family businesses in Kenya and African context generally.

Most of the studies, especially in Asia and the East, have been focusing more on succession issues rather than financial aspects of these family businesses. Thus, the findings of this study contribute in filling this knowledge gap by focusing on the financial management practices of family businesses and their growth. Key issues discussed and revealed in this study, under the wider financial management is financial literacy (financial-economic knowledge and access to financial information, financing (access to credit and financial planning and leverage), allocation of financial resources (allocation of funds and income and control of funds) and cash management (cash transactions, cash outflows and liquidity).

Therefore, the study builds further on the recent and existing empirical information in the field of financial management studies in explaining how effects of family characteristics (family financial management competency) may influence financial management practices and growth of family businesses.

5.7 Areas for Further Research

This research provides empirical evidence on the influence of financial management practices on the growth of family businesses in Kenya. This research, however, concentrated on only four aspects of financial management practices namely; financial literacy (financial-economic knowledge and access to financial information, financing

(access to credit and financial planning and leverage), allocation of financial resources (allocation of funds and income and control of funds) and cash management (cash transactions, cash outflows and liquidity). There are other aspects of financial management practices which can only be explored through further research, such as working capital management, debt management, Investment decision, etc. of family businesses.

A comparative research may also be done on the growth or financial performance of family and non-family businesses. This study focused only on family businesses in Kenya, more research should also be carried out along this topic especially to extend the research on perspectives of financial management related practices and to cover more geographical locations to other countries especially in Africa.

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APPENDICES

Appendix I: Introduction Letter

Nagib Ali Omar
Jomo Kenyatta University of Agriculture and Technology
Mombasa, Kenya.
Email: nagibomar13@gmail.com

Dear Sir/Madam

RE: REQUEST FOR RESEARCH DATA – INFLUENCE OF FINANCIAL MANAGEMENT PRACTICES ON THE GROWTH OF FAMILY BUSINESSES IN KENYA

I am a post graduate student at the Jomo Kenyatta University of Agriculture and Technology, Mombasa Campus, studying Doctorate of Business Administration (PhD) degree in Business Administration (Finance).

In partial fulfillment of the requirement of the stated degree I am conducting a study entitled **Influence of Financial Management Practices on the Growth of Family Businesses in Kenya**. You have been selected for this study and would greatly appreciate if you can complete the attached questionnaire. The information obtained will be used purely for academic purposes and findings of the study shall be made available upon your request.Kindly avail any other information or comment not included in the questionnaire that you think is important for this study.

Yours Faithfully,

Nagib Ali Omar
Cell No. 0720 927 858

Appendix II: Questionnaire

This questionnaire is to collect data for purely academic purposes. The study seeks to determine *the Influence of Financial Management Practices on the Growth of Family Businesses in Kenya (Mombasa County)*. Therefore, all information will be treated with strict confidence. I consider you as the most informed person in your business entity hence selected as my study respondent. Kindly take a few minutes and ANSWER all questions as indicated by either filling in the blank or ticking the option that applies. Your participation in facilitating this study is highly appreciated.

Part I: Respondent Information

1. Position in the Business

Chief Executive Officer [ ]

General Manager [ ]

Finance Manager [ ]

Other, Specify ……

2. Gender
    a. Male [ ]
    b. Female [ ]
3. Age
    a. Below 20 [ ]
    b. 20 - 29 years [ ]
    c. 30 – 39 years [ ]
    d. 40 – 49 years [ ]
    e. 50 – 59 years [ ]
    f. Above 60 years [ ]
4. Education
    a. Formal [ ]
    b. Informal [ ]
5. Formal Education
    a. Financial [ ]

b. Non-financial [ ]

6. Education Level achieved
   a. High school [ ]
   b. College [ ]
   c. Bachelor's Degree [ ]
   d. Master's Degree [ ]
   e. PhD [ ]
   f.Other (specify) ……..

Part II: General Information about the Business

7. Type of Business
   a. Private Limited Liability Company [ ]
   b. Private Partnership Company [ ]
   c. General Partnership [ ]
   d. Sole proprietorship [ ]
   e. Other (please specify)
      …….

8. Kind of business
   a. Family business, owned and managed [ ]
   b. Family business, owned, but not managed [ ]
   c. Non-family business [ ]
   d. Other (please specify) ……

9. Industry (Tick as many fields as you consider describing your business
   a. Trading, Shop & Retail [ ]
   b. Transport, Storage and Communications [ ]
   c. Agriculture, Mining and Natural Resources [ ]
   d. Tourism, Hotel and Restaurants [ ]

e. Financial, Professional and Technical Services [ ]

f.Education, Health and Entertainment [ ]

g. Manufacturing, Industrial and Plant [ ]

h. Other (please specify) ……

10. Age of the business

a. Below 3 years [ ]

b. Between 3 – 5 years [ ]

c. Between 6 – 10 years [ ]

d. Above 10 years [ ]

11. Number of employees

a. Below 20 [ ]

b. Between 21 – 50 [ ]

c. Between 51 – 100 [ ]

d. Between 101 – 200 [ ]

e. Above 200 [ ]

12. Business Sales (in Kenya Shillings per Month)

a. Below 250,000 [ ]

b. Between 251,000 – 500,000 [ ]

c. Between 500,001 – 750,000 [ ]

d. Between 750,001 – 1,000,000 [ ]

e. Above 1,000,000 [ ]

Part III: Financial Management Practices and Growth of Family Businesses

(On a scale of 1 – 5, please tick where appropriate; where

1= Strongly Disagree, **2** = Disagree, **3** = Undecided, **4** = Agree, and **5** = Strongly Agree)

A. Financial Literacy	1	2	3	4	5
1. Basic financial knowledge provides financial awareness in in managing business finances					
2. The ability to understand financial information enables managers to make effective financial decisions					
3. Pursuance of financial studies enables to understand more about business financial matters.					
4. Family members are called upon for financial advice before making a financial decision.					
5. Financial management practices (i.e. Cash flow management, financial planning, etc.) involve a certain level of numeracy and interpretation skills.					
6. Financial knowledge is useful in analyzing the business financials (cash flow statements, budgets, etc.)					
7. Financial-economic knowledge acquired in higher education has a beneficial impact in financial decisions.					
8. Family members who are good financial managers acquire financial knowledge through formal trainings.					
9. Accessibility to financial knowledge by family members enables the firms to set realistic financial goals.					
10. Financial knowledge acquired has enabled the financial manager to practice financial management functions					

B. Financing	1	2	3	4	5
1. It is difficult for family businesses to access external finances for business operations					
2. Lack of familiarity with the financial market has led to less accessibility to credit for family business					
3. Restrictions placed by financial institutions has led to less accessibility to credit as an external source of funds					

4. High cost of finance has resulted in family firms to refrain from accessing external financing for business operations					
5. Planning for funds has enabled family firm to understand when to seek for financing for the business					
6. The firm is able to plan for the funds obtained from external sources.					
7. Financial planning has enabled the firm to manage the firms' cash flows from business operations					
8. Family business activities are financed by debt.					
9. The firm has lower levels of debt at less than 50% of the firm's capital structure.					
10. External debt acquired is used for long-term investment purposes.					

C. Allocation of Financial Resources	**1**	**2**	**3**	**4**	**5**
1. Funds are invested in long-terms projects that lead to the growth of the family firm					
2. Funds are utilized in management of firm's equipment and assets.					
3. Funds are allocated for expansion of existing business.					
4. Income generated from the business is used to clear expensive debt.					
5. Income from firm's operations is retained for growing the business.					
6. A portion of the income generated by the business is set aside for future cash flow requirements (i.e. emergencies).					
7. Cash flow statements are used to control flow of funds.					
8. The firm has budgets that are used to control use of funds.					
9. Funds flow as per the financial plan set by the management.					
10. Proper allocation of financial resources has led					

to the growth of family business					

D. Cash Management	**1**	**2**	**3**	**4**	**5**
1. Cash transactions are in line with the firm's cash budgets.					
2. The firm prefers to hold liquid cash for daily business transactions.					
3. Cash transactions are preferred than giving credit terms to customers.					
4. Payments to suppliers are normally made on cash basis.					
5. Other mode of payments to suppliers usually incur bank charges and internal costs.					
6. The time used for processing payments is in line with supplier's terms.					
7. Disbursement limits are usually set for payments made from the firm.					
8. The firm is able to meet short-term liquidity obligations towards its suppliers.					
9. The firm is liquid enough to meet creditors demand.					
10. The firm operates with enough cash to deal with financial emergencies.					

E. Family Characteristics	**1**	**2**	**3**	**4**	**5**
1. The family has active members in management of business activities.					
2. The family network to focus activities on information provision for family business growth.					
3. Family forums are essential in coming up with policies on business operations.					
4. Family members have attained basic formal education.					
5. Informal education (on the job training) is also important in running the family business.					
6. Family members who have financial education provide better financial decisions to be					

undertaken.					
7. Family members who attained formal education are fully engaged in managing the firm activities.					
8. Family members are business-minded and entrepreneurial.					
9. Family members have strong capabilities for managing wealth in order to achieve growth.					
10. Family members seek steady long-term growth to avoid risking family's wealth.					

F. Growth of family-led businesses	**1**	**2**	**3**	**4**	**5**
1. Revenues from the operations have been increasing every year.					
2. Increased revenues from the firm is a result of proper financial management practices.					
3. Revenues from the firm are re-invested for growth purposes.					
4. Ploughing back of income has resulted in the growth of the family business.					
5. Payment of interest on loan reduces the profits of the firm.					
6. Family members are more concerned with future growth than short-term profitability.					
7. Family firms increase its value by investing more in long-term assets.					
8. Family businesses prefer less debt in order to increase net value or the firm.					
9. Family firms' net worth has been increasing as the firm experiences stable growth.					
10. Business growth has been as a result of proper financial management practices undertaken by the firm.					

THANK YOU

Appendix III: Rotated Component Analyses

1. **GROWTH**

Rotated Component Matrix[a]

Opinion Statement	Component	
	1	2
Revenues from the operations have been increasing every year.	.868	.152
Increased revenues from the firm is a result of proper financial management practices.	.831	.230
Revenues from the firm are re-invested for growth purposes.	.893	.185
Ploughing back of income has resulted in the growth of the family business.	.786	.263
Payment of interest on loan reduces the profits of the firm.	.506	.548
Family members are more concerned with future growth than short-term profitability.	.503	.558
Family firms increase its value by investing more in long-term assets.	.308	.843
Family businesses prefer less debt in order to increase net value or the firm.	.035	.880
Family firms' net worth has been increasing as the firm experiences stable growth.	.184	.894
Business growth has been as a result of proper financial management practices undertaken by the firm.	.290	.652

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Rotated Component Matrix[a]

Opinion Statement	Component	
	1	2
Revenues from the operations have been increasing every year.	.875	.151
Increased revenues from the firm is a result of proper financial management practices.	.847	.242
Revenues from the firm are re-invested for growth purposes.	.897	.178
Ploughing back of income has resulted in the growth of the family business.	.784	.248
Family firms increase its value by investing more in long-term assets.	.311	.830
Family businesses prefer less debt in order to increase net value or the firm.	.047	.883
Family firms' net worth has been increasing as the firm experiences stable growth.	.201	.904
Business growth has been as a result of proper financial management practices undertaken by the firm.	.316	.680

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

2. Financial Literacy

Rotated Component Matrix[a]

Opinion Statement	Component	
	1	2
Basic financial knowledge provides financial awareness in in managing business finances	.902	.336
The ability to understand financial information enables managers to make effective financial decisions	.905	.349
Pursuance of financial studies enables to understand more about business financial matters.	.846	.415
Family members are called upon for financial advice before making a financial decision.	.903	.220
Financial management practices (i.e. Cash flow management, financial planning, etc.) involve a certain level of numeracy and interpretation skills.	.794	.449
Financial knowledge is useful in analyzing the business financials (cash flow statements, budgets, etc.)	.528	.726
Financial-economic knowledge acquired in higher education has a beneficial impact in financial decisions.	.422	.818
Family members who are good financial managers acquire financial knowledge through formal trainings.	.331	.907
Accessibility to financial knowledge by family members enables the firms to set realistic financial goals.	.288	.920
Financial knowledge acquired has enabled the financial manager to practice financial management functions	.265	.887

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Rotated Component Matrix[a]

Opinion Statement	Component	
	1	2
Basic financial knowledge provides financial awareness in in managing business finances	.906	.330
The ability to understand financial information enables managers to make effective financial decisions	.909	.344
Pursuance of financial studies enables to understand more about business financial matters.	.851	.411
Family members are called upon for financial advice before making a financial decision.	.906	.207
Financial management practices (i.e. Cash flow management, financial planning, etc.) involve a certain level of numeracy and interpretation skills.	.799	.434
Financial-economic knowledge acquired in higher education has a beneficial impact in financial decisions.	.433	.798
Family members who are good financial managers acquire financial knowledge through formal trainings.	.343	.905
Accessibility to financial knowledge by family members enables the firms to set realistic financial goals.	.299	.926
Financial knowledge acquired has enabled the financial manager to practice financial management functions	.275	.897

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Rotated Component Matrix[a]

Opinion Statement	Component	
	1	2
Basic financial knowledge provides financial awareness in in managing business finances		.913
The ability to understand financial information enables managers to make effective financial decisions		.910
Family members are called upon for financial advice before making a financial decision.		.916
Family members who are good financial managers acquire financial knowledge through formal trainings.	.900	
Accessibility to financial knowledge by family members enables the firms to set realistic financial goals.	.938	
Financial knowledge acquired has enabled the financial manager to practice financial management functions	.916	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

b.

2. Financing

Rotated Component Matrix[a]

Opinion Statement	Component	
	1	2
It is difficult for family business to access external finances for business operations.	.889	.212
Lack of familiarity with the financial market has led to less accessibility to credit for the family business	.878	.331
Restrictions placed by financial institutions has led to less accessibility to credit as an external source of funds	.698	.334
High cost of finance has resulted in family firms to refrain from accessing external financing for business operations	.242	.785
Planning for funds has enabled family firm to understand when to seek for financing for the business.	.889	.212
The firm is able to plan for the funds obtained from external sources.	.878	.331
Financial planning has enabled the firm to manage the firms' cash flows from business operations	.164	.867
Family business activities are financed by debt.	.231	.851
The firm has lower levels of debt at less than 50% of the firm's capital structure.	.378	.650
External debt acquired is used for long-term investment purposes.	.452	.701

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Rotated Component Matrix[a]

Opinion Statement	Component	
	1	2
It is difficult for family business to access external finances for business operations.	.891	.202
Lack of familiarity with the financial market has led to less accessibility to credit for the family business	.886	.315
Restrictions placed by financial institutions has led to less accessibility to credit as an external source of funds	.710	.312
High cost of finance has resulted in family firms to refrain from accessing external financing for business operations	.262	.787
Planning for funds has enabled family firm to understand when to seek for financing for the business.	.891	.202
The firm is able to plan for the funds obtained from external sources.	.886	.315
Financial planning has enabled the firm to manage the firm's cash flows from business operations	.180	.895
Family business activities are financed by debt.	.247	.877
The firm has lower levels of debt at less than 50% of the firm's capital structure.	.409	.573

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 3 iterations

Rotated Component Matrix[a]

Opinion Statement	Component	
	1	2
It is difficult for family business to access external finances for business operations.	.893	.198
Lack of familiarity with the financial market has led to less accessibility to credit for the family business	.894	.296
Restrictions placed by financial institutions has led to less accessibility to credit as an external source of funds	.719	.276
High cost of finance has resulted in family firms to refrain from accessing external financing for business operations	.281	.774
Planning for funds has enabled family firm to understand when to seek for financing for the business.	.893	.198
The firm is able to plan for the funds obtained from external sources.	.894	.296
Financial planning has enabled the firm to manage the firm's cash flows from business operations.	.200	.911
Family business activities are financed by debt.	.267	.891

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

3. Allocation of Financial Resources

Rotated Component Matrix[a]

Opinion Statement	Component	
	1	2
Funds are invested in long-terms projects that lead to the growth of the family firm	.166	.920
Funds are utilized in management of firm's equipment and assets.	.247	.898
Funds are allocated for expansion of existing business.	.173	.942
Income generated from the business is used to clear expensive debt.	.511	.462
Income from firm's operations is retained for growing the business.	.331	.815
A portion of the income generated by the business is set aside for future cash flow requirements (i.e. emergencies).	.574	.581
Cash flow statements are used to control flow of funds.	.876	.294
The firm has budgets that are used to control use of funds.	.940	.225
Funds flow as per the financial plan set by the management.	.935	.203
Proper allocation of financial resources has led to the growth of family business	.880	.170

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Rotated Component Matrix[a]

Opinion Statement	Component	
	1	2
Funds are invested in long-terms projects that lead to the growth of the family firm	.173	.929
Funds are utilized in management of firm's equipment and assets.	.250	.905
Funds are allocated for expansion of existing business.	.177	.948
Income from firm's operations is retained for growing the business.	.326	.810
Cash flow statements are used to control flow of funds.	.874	.294
The firm has budgets that are used to control use of funds.	.946	.233
Funds flow as per the financial plan set by the management.	.943	.214
Proper allocation of financial resources has led to the growth of family business	.885	.179

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

4. Cash Management

Rotated Component Matrix[a]

Opinion Statement	Component		
	1	**2**	**3**
Cash transactions are in line with the firm's cash budgets.	.189	.883	.132
The firm prefers to hold liquid cash for daily business transactions.	.153	.816	.295
Cash transactions are preferred than giving credit terms to customers.	.098	.225	.906
Payments to suppliers are normally made on cash basis.	.108	.188	.910
Other mode of payments to suppliers usually incur bank charges and internal costs.	.226	.658	.210
The time used for processing payments is in line with supplier's terms.	.528	.636	.067
Disbursement limits are usually set for payments made from the firm.	.688	.498	-.039
The firm is able to meet short-term liquidity obligations towards its suppliers.	.912	.219	.121
The firm is liquid enough to meet creditors demand.	.937	.174	.125
The firm operates with enough cash to deal with financial emergencies.	.889	.177	.127

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Rotated Component Matrix[a]

Opinion Statement	Component		
	1	**2**	**3**
Cash transactions are in line with the firm's cash budgets.	.194	.905	.103
The firm prefers to hold liquid cash for daily business transactions.	.185	.879	.234
Cash transactions are preferred than giving credit terms to customers.	.102	.239	.902
Payments to suppliers are normally made on cash basis.	.105	.183	.921
Other mode of payments to suppliers usually incur bank charges and internal costs.	.231	.636	.220
The firm is able to meet short-term liquidity obligations towards its suppliers.	.918	.226	.105
The firm is liquid enough to meet creditors demand.	.952	.198	.097
The firm operates with enough cash to deal with financial emergencies.	.907	.209	.093

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Family Characteristics

Component Matrix[a]

Opinion Statement	Component 1
The family has active members in management of business activities.	.791
The family network to focus activities on information provision for family business growth.	.857
Family forums are essential in coming up with policies on business operations.	.887
Family members have attained basic formal education.	.869
Informal education (on the job training) is also important in running the family business.	.797
Family members who have financial education provide better financial decisions to be undertaken.	.894
Family members who attained formal education are fully engaged in managing the firm activities.	.781
Family members are business-minded and entrepreneurial.	.757
Family members have strong capabilities for managing wealth in order to achieve growth.	.841
Family members seek steady long-term growth to avoid risking family's wealth.	.865

Extraction Method: Principal Component Analysis.

a. 1 components extracted.