INFLUENCE OF STRATEGIC MANAGEMENT DRIVERS
ON THE GROWTH OF COFFEE EXPORT PROCESSING
FIRMS IN RWANDA

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DOCTOR OF PHILOSOPHY
(Business Administration)

JOMO KENYATTA UNIVERSITY OF
AGRICULTURE AND TECHNOLOGY

2019
Influence of Strategic Management Drivers on The Growth of Coffee Export Processing Firms in Rwanda

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A Thesis Submitted in Partial Fulfillment for the Degree of Doctor of Philosophy in Business Administration (Strategic Management Option) in the Jomo Kenyatta University of Agriculture and Technology

2019
DECLARATION

This Thesis is my original work and has not been presented for a degree in any other University.

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DEDICATION

To my beloved husband Mayele Bwiri Willy and my beloved children Ruti Simbi Berenice and Izere Teta Mervine for your continued support and love. Your endurance throughout the period of my studies will always be remembered. Indeed, this is your victory. To my parents Hategakimana Deogratias, Mukabutera Adele, and my uncle Dr. Ndayambaje Pius who lead me throughout my life with light and hope. To you, I am forever indebted. To my beloved sisters and brothers, your endless love has been my encouragement throughout my studies. To all my relatives and my in-laws for your moral support.

To God be the Glory!
ACKNOWLEDGEMENT

First and foremost, I acknowledge that if it was not for the God Almighty, this study would not have been possible. I would like to express my special appreciation to my supervisors Prof. Gregory S. Namusonge, Dr. Fred Mugambi Mwirigi and Dr. Kule Julius Warren for their professional guidance, constant encouragement and commitment in taking me through this intellectual journey. Without their constructive critiques, assistance and recommendations, this work would not have been accomplished at this stage. To Prof. Thomas Kigabo Rusuhuzwa, Chief Economist at National Bank of Rwanda. Without your encouragement, I wouldn't have done my PhD studies.

My heartfelt thanks to Pierre Munyura, the former Chairman of CEPAR for his useful professional guidance. I am very indebted to Dr. Papias Musafiri Malimba, former Minister of Education, Rwanda, and current Deputy Vice Chancellor for Strategic Planning and Administration at University of Rwanda, and Dr. Uzziel Ndagijimana, Minister of Finance and Economic Planning. You have been my inspirational employers and mentors.

I wish to give my warmest thanks to my family members for their moral support and financial assistance, encouragement and understanding when I was not there for them during the period I was working on this research thesis; I will always cherish their love and support for both my research and my entire life. I wish I could acknowledge by their names all the people who have contributed to make this research possible, but even though their names are not mentioned here, they should be assured that their support is very much acknowledged.

May God Bless you all!
# TABLE OF CONTENTS

DECLARATION..................................................................................................................ii

DEDICATION...........................................................................................................................iii

ACKNOWLEDGEMENT..........................................................................................................iv

TABLE OF CONTENTS........................................................................................................v

LIST OF TABLES..................................................................................................................x

LIST OF FIGURES..............................................................................................................xii

LIST OF APPENDICES........................................................................................................xiii

LIST OF ABBREVIATIONS AND ACRONYMS.................................................................xiv

DEFINITION OF TERMS.....................................................................................................xvi

ABSTRACT............................................................................................................................xix

CHAPTER ONE ....................................................................................................................1

INTRODUCTION..................................................................................................................1

1.1. Background of the Study.............................................................................................1
1.2. Statement of the Problem............................................................................................9
1.3. Research Objectives..................................................................................................13
  1.3.1. General Objectives...............................................................................................13
  1.3.2. Specific Objectives...............................................................................................13
1.4. Research Hypotheses.................................................................................................13
1.5. Significance of the Study ........................................................................................................... 14
  1.5.1. Coffee Exporters and Processors ......................................................................................... 14
  1.5.2. Policy Makers ..................................................................................................................... 14
  1.5.3. Coffee Farmers ................................................................................................................... 15
  1.5.4. Community ........................................................................................................................ 15
  1.5.5. Scholars ............................................................................................................................. 15
  1.6. Justification of the Study ......................................................................................................... 15
  1.7. Scope of the Study .................................................................................................................. 16
  1.8. Limitation of the Study .......................................................................................................... 16

CHAPTER TWO ................................................................................................................................. 18

LITERATURE REVIEW .................................................................................................................... 18

  2.1. Introduction ............................................................................................................................... 18
  2.2. Theoretical Framework ........................................................................................................... 18
    2.2.1. Resource Based View Theory .......................................................................................... 18
    2.2.2. Dynamic Capabilities Theory ......................................................................................... 21
    2.2.3. Human Capital Theory .................................................................................................... 23
    2.2.4. Agency Theory .................................................................................................................. 26
    2.2.5. Stakeholder Theory .......................................................................................................... 28
    2.2.6. Growth theory ................................................................................................................... 30
  2.3. Conceptual Framework ........................................................................................................... 34
  2.4. Review of the Study Variables ............................................................................................... 36
    2.4.1. Strategic Value Addition .................................................................................................. 36
    2.4.2. Product and Markets Diversification ................................................................................ 37
    2.4.3. Business Environment .................................................................................................... 41
    2.4.4. Strategic Human Capital ............................................................................................... 48
    2.4.5. Growth of Coffee Export Processing Firms ..................................................................... 50
  2.5. Empirical Literature Review .................................................................................................. 52
  2.6. Critique of the Existing Literature Relevant to the Study ..................................................... 53
  2.7. Research Gaps ........................................................................................................................ 56
CHAPTER FIVE ........................................................................................................ 158

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS .......................... 158

5.1. Introduction .................................................................................................. 158

5.2. Summary of Findings ................................................................................. 158
5.2.1. Influence of Strategic Value Addition on the Growth of Coffee Export Processing Firms

5.2.2. Influence of Product and Markets Diversification on the Growth of Coffee Export Processing Firms

5.2.3. Influence of Business Environment on the Growth of Coffee Export Processing Firms

5.2.4. Influence of Strategic Human Capital on the Growth of Coffee Export Processing Firms

5.3. Conclusions

5.3.1. Influence of Strategic Value Addition on the Growth of Coffee Export Processing Firms

5.3.2. Influence of Product and Markets Diversification on the Growth of Coffee Export Processing Firms

5.3.3. Influence of Business Environment on the Growth of Coffee Export Processing Firms

5.3.4. Influence of Strategic Human Capital on the Growth of Coffee Export Processing Firms

5.4. Recommendations

5.4.1. Policy Implications

5.4.2. Managerial Implications

5.5. Areas for Further Research

REFERENCES

APPENDICES
LIST OF TABLES

Table 3.1: Population of the Study ................................................................................. 63
Table 3.2: Sample Size and Sampling Technique ................................................................. 65
Table 3.3: Dancey and Reidy’s Strength of Pearson’s Correlation Coefficient
   Categorization.............................................................................................................. 75
Table 3.4: Hypothesis Tests ............................................................................................... 78
Table 3.5: Variable Definition and Measurement ............................................................... 81
Table 4.1: Distribution of Respondents by Gender .............................................................. 83
Table 4.2: Distribution of Respondents by Category ......................................................... 84
Table 4.3: Reliability Test of Constructs ............................................................................ 85
Table 4.4: Validity Test Results ......................................................................................... 85
Table 4.5: Descriptive Statistics of Strategic Value Addition ............................................... 88
Table 4.6: Descriptive Statistics of Product and Markets Diversification ......................... 93
Table 4.7: Descriptive Statistics of Business Environment ............................................... 98
Table 4.8: Descriptive Statistics of Strategic Human Capital ............................................. 109
Table 4.9: Descriptive Statistics for Growth of Coffee Export Processing Firms .............. 118
Table 4.10: Volume and Revenues of Coffee Exports from 2014/2015 to
   2016/2017..................................................................................................................... 126
Table 4.11: Kolmogorov-Smirnov Test for Normality......................................................... 128
Table 4.12: Skewness and Kurtosis Normality Test .............................................................. 129
Table 4.13: Multicollinearity Test of the Study Variables ................................................. 130
Table 4.14: Regression Results for Strategic Value Addition ........................................... 131
Table 4.15: ANOVA Results for Strategic Value Addition Measures ................................ 132
Table 4.16: Coefficients showing Strategic Value Addition Measures ................................ 133
Table 4.17: Correlation showing Strategic Value Addition Measures ................................ 134
Table 4.18: Regression for Product and Markets Diversification Measures ................. 135
Table 4.19: ANOVA Results for Product and Markets Diversification Measures .......... 136
Table 4.20: Coefficients of Product and Markets Diversification Measures .................. 137
Table 4.21: Correlation of Product and Markets Diversification Measures .................... 138
Table 4.22: Regression Results for Business Environment Measures ........................... 139
Table 4.23: ANOVA Results for Business Environment Measures .................. 140
Table 4.24: Coefficients showing the Business Environment Measures .......... 141
Table 4.25: Correlation showing the Business Environment Measures ........... 142
Table 4.26: Regression Results for Strategic Human Capital Measures .......... 144
Table 4.27: ANOVA Results for Strategic Human Capital Measures ................ 144
Table 4.28: Coefficients showing the Strategic Human Capital Measures ........ 145
Table 4.29: Correlations showing the Strategic Human Capital Measures ...... 146
Table 4.30: Multiple Regression Model .................................................. 148
Table 4.31: Overall ANOVA Results for all the Study Variables .................... 149
Table 4.32: Regression of all the Study Variables-Goodness-of-Fit .............. 150
Table 4.33: Multiple Linear Regression Model Coefficients .......................... 151
Table 4.34: Correlations Matrix .............................................................. 154
Table 4.35: Summary of Hypotheses Test Results ...................................... 156
LIST OF FIGURES

Figure 2.1: Firm’s Internal and External Stakeholders ........................................ 28
Figure 2.2: Phases of Growth ........................................................................ 33
Figure 2.3: Conceptual Framework ............................................................... 35
Figure 2.4: Export Dynamics Tree ................................................................. 40
Figure 4.1: Revised Conceptual Framework ................................................. 155
LIST OF APPENDICES

Appendix I: Introductory Letter to the Respondents ........................................ 221
Appendix II: Questionnaire ................................................................................. 222
Appendix III: List of Coffee Exporters and Processors in 2016 in Rwanda...... 230
# LIST OF ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ANOVA</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>BE</td>
<td>Business Environment</td>
</tr>
<tr>
<td>CEPAR</td>
<td>Coffee Exporters and Processors Association of Rwanda</td>
</tr>
<tr>
<td>COMESA</td>
<td>Common Market for Eastern and Southern Africa</td>
</tr>
<tr>
<td>CWS</td>
<td>Coffee Washing Stations</td>
</tr>
<tr>
<td>EBA</td>
<td>Everything But Arms</td>
</tr>
<tr>
<td>ECOWAS</td>
<td>Economic Community Of West Africa States</td>
</tr>
<tr>
<td>EDPRS II</td>
<td>Economic Development and Poverty Reduction Strategy II</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>GCEPF</td>
<td>Growth of Coffee Export Processing Firms</td>
</tr>
<tr>
<td>GDP</td>
<td>Growth Domestic Product</td>
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<tr>
<td>GSP</td>
<td>Generalized Systems of Preferences</td>
</tr>
<tr>
<td>Hₐ₁</td>
<td>Alternative Hypothesis 1</td>
</tr>
<tr>
<td>Hₐ₂</td>
<td>Alternative Hypothesis 2</td>
</tr>
<tr>
<td>Hₐ₃</td>
<td>Alternative Hypothesis 3</td>
</tr>
<tr>
<td>Hₐ₄</td>
<td>Alternative Hypothesis 4</td>
</tr>
<tr>
<td>IFAD</td>
<td>International Fund for Agricultural Development</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>Kgs</td>
<td>Kilograms</td>
</tr>
<tr>
<td>MINECOFIN</td>
<td>Ministry of Finance and Economic Planning</td>
</tr>
<tr>
<td>MINEACOM</td>
<td>Ministry of Trade, Industry and East African Community Affairs</td>
</tr>
<tr>
<td>NAEB</td>
<td>National Agricultural Export Development Board</td>
</tr>
<tr>
<td>NES</td>
<td>National Export Strategy</td>
</tr>
<tr>
<td>%</td>
<td>Percent</td>
</tr>
<tr>
<td>PMD</td>
<td>Product and Markets Diversification</td>
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<tr>
<td>R²</td>
<td>Coefficient of Determination</td>
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<td>SADC</td>
<td>Southern African Development Community</td>
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<tr>
<td>SHC</td>
<td>Strategic Human Capital</td>
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<tr>
<td>SVA</td>
<td>Strategic Value Addition</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
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<td>------</td>
<td>----------------</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
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<tr>
<td>USD</td>
<td>United States Dollar</td>
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<tr>
<td>WTO</td>
<td>World Trade Organization</td>
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DEFINITION OF TERMS

**Strategy:** Strategy is the central, integrated, and externally oriented concept of how a firm will achieve its objectives (Hambrick & Frederickson, 2001). Strategy is the whole set of activities that emerge as a result of rational planning (David, 2009). Strategies can also be interpreted as a set of hypotheses of causes and effects (Kaplan & Norton, 2005).

**Strategic Management:** Strategic management is the managerial responsibility to achieve competitive advantage through optimizing internal resources while capturing external opportunities and avoiding external threats. Strategic management has now evolved to such a point that its primary value helps the organization to operate successfully in a competitive environment (Wheelen & Hunger (2012). Strategic management can also be seen as a combination of strategy formulation, implementation and evaluation (Dauda et al., 2010).

**Strategic Management Drivers:** Strategies don't happen in a vacuum. They are influenced by a variety of internal and external strategic management drivers. Strategic management drivers are forces that shape an organization's strategy. These are managerial decisions which help in achieving the set objectives or goals. There are critical success factors that are necessary to support the effectiveness and efficiency in achieving the organization’s goals (Garcia et al., 2012). Strategic management drivers involve the translation of business strategies into deliverable results (Uzel, 2015). They combine financial, strategic and operating principles to gauge how a company is able to meet its targets (Mshenga & Owuor, 2009).

**Value Addition:** Value Addition is the act of adding value to a product, in order to produce a high quality product that can fetch higher prices in the market place (Fleming, 2005).
**Export:** Export is a function of international trade whereby goods produced in one country are shipped to another country for future sale or trade (Stehrer, & Stollinger, 2013).

**Export Diversification:** Export diversification is the changing of a country's export structure. This can be attained by changing the existing basket of commodities or by embellishing them through innovation and technology. This goes with discovering new destinations or learning about how existing products can be improved (Gathani & Stoelinga, 2012).

**Business Environment:** This is a combination of internal and external factors that influence a company’s operating situation (Chavis et al., 2011).

**Strategic Human Capital:** Strategic human capital is about providing people of an organization with training and educational programs of various types that are relevant to their respective role, duties and responsibilities which are aligned to the organizational needs, in order to achieve its mission and objectives (Coff & Raffie, 2015).

**Growth:** Every firm is most concerned with its profitability. The more and the faster a business can grow, the better. In order for a business to grow and not run into problems with its financing, it has to grow at a sustainable growth rate. The sustainable growth rate in a business is the maximum growth rate a business can achieve. Therefore, growth means increase in sales turnover, increase in profitability levels, increase in the number of employees, production lines, services and total capitalization (Mbiti et al., 2015).

**Coffee Export Processing Firms:** These are firms which deal with processing coffee as well as exporting it on international market. Firms focus on high growth
export markets to not only grow, but also to enhance their competitiveness. Coffee processing is the firm’s process of converting the raw fruits of the coffee plant into the finished coffee. The methods used vary and can have a significant effect on the flavor of the finished coffee (Wintgens, 2012).
ABSTRACT

The purpose of this research which was highlighted in the general objective of this study was to determine the influence of strategic management drivers on the growth of coffee export processing firms in Rwanda. This study was guided by the following specific objectives which indicated the selected strategic management drivers of this study: (1) Determine the influence of strategic value addition on the growth of coffee export processing firms in Rwanda; (2) Identify the influence of product and markets diversification on the growth of coffee export processing firms in Rwanda; (3) Determine the influence of business environment on the growth of coffee export processing firms in Rwanda; and (4) Identify the influence of strategic human capital on the growth of coffee export processing firms in Rwanda. The study was based on resource based view theory, dynamic capabilities theory, human capital theory, agency theory, stakeholder theory, and growth theory. The study used descriptive and correlational research design. The target population of the study comprised of 91 respondents ranging from senior managers of coffee export processing firms to staff from the National Agricultural Export Development Board (NAEB), representatives from the Ministry of Finance and Economic Planning (MINECOFIN) and the Ministry of Trade and Industry (MINICOM), that are directly linked to activities related to coffee export and processing. Primary data was collected using questionnaires which were administered to a sample of 91 respondents because of the small number of the target population. Questionnaires which were administered through drop and pick method. The sampling techniques which were used were purposive sampling for staff under Ministries and NAEB, and a census for coffee export processing firms. Pilot study was carried on nine (9) respondents to check for the validity and reliability of the research instruments. Reliability was tested using Cronbach’s Alpha. Collected data was classified and tabulated according to research objectives. Afterwards, data were analyzed using SPSS. Descriptive statistics were used for preliminary analysis and inferential statistics such as Pearson’s correlation, ANOVA, linear and multiple regression analysis were used for further analysis. The research hypotheses were tested at 95% confidence level. For all the four independent variables, the alternative hypotheses were taken to hold, thus the conclusions drawn from the study findings are that strategic management drivers taken individually or combined, i.e. strategic value addition, product and markets diversification, business environment and strategic human capital, have a significant and positive influence on the growth of coffee export processing firms in Rwanda. Therefore, the study recommends the adoption of the selected strategic management drivers in order to enhance the growth of coffee export processing firms in Rwanda.
CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Strategic management which is concerned with making strategic decisions and taking corrective actions to achieve long-term targets and goals of an organization has gained importance due to its significant contributions to companies’ success. The environment in which organizations operate is constantly changing with different factors influencing the organizations. Iravo et al., (2013) state that one of the important questions in business has been why some organizations succeed and why others fail. Another research by Awino (2011) asserts that for an organization to be successful, it has to record high returns. Theuri et al., (2014) identify strategic planning, technological competitiveness, the level of market competition and corporate policies as key determinants of superior organizational performance.

Strategic management in an organization focuses on the issues of creating and sustaining competitive advantage (Bowman & Ambrosini, 2003). It is a process and a path guiding actions all over the organization (Dess et al., 2007). It is a collection of actions consisting of organizational analysis, decisions and actions to create and sustain competitive advantages. These competitive advantages support an organization to explore opportunities and minimize threats from the business environment.

All firms need to be helped by employees to successfully achieve their missions (Fred, 2011). It is thus important for any business to have a vision then develop strategies for its survival. Lack of strategies may lead to stagnation or death of an organization (Hassan & Mugambi, 2013). Strategic management process motivates all managers and employees to be dedicated to the organization. Therefore, the employees can be able to know what the company is doing, how the goals can be achieved and then they can make a greater commitment for the organization success. Managers and employees can understand each other and become more hard working and creative on a mission to help
firms succeed (Muogbo, 2013). Thus, strategic management makes an organization to be more proactive, in order to initiate and influence activities under its control.

Initially strategic management was mostly adopted by large firms but increasing risks, mistakes, and economic fluctuation should force today’s professional managers in all kind of organizations to take strategic management seriously in order to stay competitive in volatile environment (Wheelen et al., 2017). Most organizations therefore now recognize and realize the benefits of strategic management (David, 2005). A research by Wheelen et al., (2014) confirmed that in the current global competition, strategic management has evolved to help organizations to operate successfully in competitive environment. Today's business world is much complex and has uncertain conditions which influence the companies to create effective strategies for the dynamic market.

Strategic management drivers provide tools for firms' survival, growth and help them to maintain a sustainable competitive advantage over their competitors (Gomezelj & Antončič, 2008). Firms use strategic management drivers to protect them from a very unpredictable business environment and ensure survival and growth (Dansoh, 2005; Pistrui et al., 2006). Firms which engage in strategic management are most likely to have higher sales growth, higher profit margin, higher return of assets, and higher employees growth. Strategic management drivers are involved in the translation of business strategies into deliverable results with the mediating role of strategy implementation in order to maximize organizational performance (Miriam & Wario, 2014).

Strategy is a pattern or plan that integrates an organization’s major goals, policies and action sequence into a cohesive way stating how an organization will achieve its long-term objectives (Burnes, 2004). Strategic management is long-term oriented, directed towards future growth potentials, substantial, holistic, and predominantly associated with the highest management level which determines the vision, mission, and culture of an enterprise (Pillania, 2008). It is an approach of specifying objectives of the organization, develop plans and policies to achieve those objectives, allocate resources and evaluate the strategy.
Strategic management is the combination of strategy formulation, implementation, and evaluation. Hence, strategic management is simply a set of managerial decisions and actions that result in the formulation and implementation of the strategy to achieve organization’s objectives (David, 2013). Thompson et al., (2007), define strategic management as a process where managers establish an organization’s long-term direction, set performance objectives, develop strategies to achieve those objectives in light of relevant internal and external circumstances, and execute chosen action plans (Thompson et al., 2007). Therefore, strategic management consists of analysis, decisions, and actions an organization carry out to create sustainable competitive advantages (Dess et al., 2007).

The strategic management process is continuous and dynamic and a change in one component can necessitate a change in the entire strategy (Fink & Ploder, 2009). Thus, managing strategy is concerned with ensuring that the selected strategies are put into action through the development of suitable strategies, structuring to support organization’s performance, resourcing strategies and managing strategic change (Johnson et al., 2008).

Empirical literature supports the need for export processing firms to engage in strategic management to achieve higher performance (Schraeder, 2002). However, with increasing challenges in the business environment, coffee export processing firms managers must have the ability to adapt and restructure their businesses to address constraints facing them and need to adopt superior strategic management drivers (Pillania, 2008).

Uzel (2012) states that there is intense competition in today’s business environment which requires managers to adopt strategic management drivers in order to improve firms' performance. Chen and Popovich (2003) state that firms that maintain long run performance are the ones that are able to build customer loyalty and retention as well as sustaining customers for competitive advantage.
In today’s business world of aggressive competition, firm growth is an ambiguous phenomena and it can be measured and interpreted in different ways. The growth of firms is something inherent to their actual existence. Throughout their life, firms must grow continuously if they want to sustain their competitive position within an environment where other rival firms may be growing at a faster pace (Johnson et al., 2008; Kazmi, 2002). While some surveys show that growth is not an objective for all firms, the ability of firms to grow is important, because it has been suggested that firms with low or negative growth rates are more likely to fail (Headd & Kirchhoff, 2007). A firm can emphasize activities that drive down its costs, respond aggressively to competitors, seek to provide maximal customer value, or seek to speed up the pace of technological innovations.

The research by Hakkert and Kemp (2006) indicates that firm growth refers to the increase in the organization attributes including profit and sales of an organization. Firm growth reflects the degree of success achieved in terms of stated objectives and as the objectives differ widely so does the concept of firm growth (Aggarwal, 2012). McGrath, et al., (2000) suggest that the strongest companies are those that recognize and understand the importance of both innovation and improvement. These companies never stop growing and are the true value growers.

High growth firms make use of external relations (Lechner, et al., 2006) and growth is a combination of environmental and leadership processes. Nevertheless, if a firm wishes to improve its relative position, then it will have to grow faster (Eisenhardt & Schoonhoven, 2002). Therefore, firms must seek continuous growth with the aim of increasing and maintaining their sales and profit levels, so that their survival can be guaranteed. However, this does not mean that the growth of firms takes place in an unplanned way; it actually occurs in a premeditated, organized way and is the fruit of conscious strategic decisions taken by a firm in the ever-changing business environment (Baum & Wally 2003).
Firm growth is the responsibility of the top managers who must concentrate on strategic planning, implementation and allocation of resources with the objective of pursuing organizational efficiency. Muia (2011) found out that firms can be encouraged to embrace growth strategy especially when pursuing the profitability and wealth objectives. Mengistie (2012) established that labor quality, assets, productivity, and leverage positively affect growth. Mulunga (2010) indicated that lack of regulatory and policy framework, lack of capital and high operational costs negatively affected the growth of MFIs in Namibia.

Maina (2011) found out that information technology, funds, technical skills and market research positively affect growth of MFIs. Much research effort has been targeted particularly at investigating the factors affecting firm growth, but to date there is no comprehensive theory to explain which firms will grow faster and how they will grow (Garnsey & Heffernan, 2011). Dispute all these studies, the research by Njeru et al., 2013) indicates that not all enterprises’ first and foremost objective was growth. Some enterprises are established merely to exploit a short-time opportunity.

On the other hand, the coffee export is an important economic activity in terms of income generation, employment creation and foreign exchange earnings. Indeed, coffee is at the forefront of other commodities in the world economy after oil (Giovannucci & Koekoek, 2003), and in today’s international coffee market, the production of better coffee wins the market (Baker, 2008). However, coffee industry suffers from quick variations in supply that, at times can cause extensive and radical fluctuations in price (Donnet et al., 2007).

The decline of coffee value may also be attributed to lower prices although it is possible that weather related factors can also play a role (Lewin et al., 2004). The coffee sector is also faced with major challenges such as cost effective and competition which have an overall effect on the industry’s economies of scale (Kate et al., 2008). The coffee industry should therefore adopt suitable strategic management drivers that will provide a long-term competitive advantage on international market.
International Coffee Organization Market Report of September 2017 (www.ico.org) highlighted that the total coffee production by all exporting countries was 149,077 thousand bags (60 kilograms) in 2014, 152,108 thousand bags (60 kilograms) in 2015, 157,694 thousand bags (60 kilograms) in 2016, and 158,930 thousand bags (60 kilograms) in 2017, with a slight increase of 0.8% from 2016 to 2017. The volumes of coffee production and exports from the world big coffee producing countries are as follows: In Brazil, the coffee production for 2016/2017 was estimated at 55 million bags (60 kilograms), up to 9.2% compared to the previous year. Coffee exports from Brazil in 2016/2017 was 29.3 million bags (60 kilograms) and declined by 7.3%.

The coffee production in Vietnam for 2016/2017 was estimated at 25.5 million bags (60 kilograms) and declined by 11.3% compared to the previous year. Coffee exports from Vietnam declined by 3.4% to 23.5 million bags (60 kilograms). Colombia has ended 2016/2017 with a total production of 14.5 million bags (60 kilograms). Coffee exports from Colombia rebounded by 9.6% to 12.4 million bags (60 kilograms). Indonesian production decreased by 6.7% to 11.5 million bags (60 kilograms) in 2016/2017. Coffee exports from Indonesia reached 9.8 million bags (60 kilograms), up by 78.9% compared to the same period in 2015/2016 (www.ico.org).

Rwanda has a long coffee tradition dating back to the beginning of the 20th century and it was introduced in Rwanda in 1904 by German missionaries. The first coffee exports were recorded around 1917 and for many years, coffee has been the major source of foreign currency in Rwanda (Schluter & Finney, 2001). Coffee was then enforced as a compulsory crop around 1930 and it gained high potential to grow, hence yielding good and supportive income to Rwandan rural farmers and exporters (Banjoko, 2015). Heavy government involvement in the coffee sector continued and in 1980s, as world coffee prices rose, coffee exports provided between 60% and 80% of Rwanda’s export revenues (Berlage et al., 2004). Rwanda coffee is therefore predominantly an export-oriented commodity with over 95% of the coffee produced in the country being exported (NAEB, 2015).
Since the late 1990s, the government of Rwanda has liberalized the coffee sector, removing a variety of barriers to trade, creating new incentives for groups and individuals to invest in coffee production and facilitating entrepreneurship in the coffee industry. Changes in the coffee sector began after 1994, when the government of Rwanda opened the market for coffee export to increased competition and began to focus on improving the value chain for coffee. However, in 2000, Rwandan farmers were producing semi-processed coffee for sale on international market. Farm gate prices paid to farmers were low (60 Rwandan francs per kilogram) and the prospects for farmers and exporters to increase income or profits were limited (Schluter & Finney, 2001).

In 2002, the first National Coffee Strategy was adopted whereby quality control systems, market information and innovative branding activities were core actions needed in sales and marketing. The Strategy also targeted the specialty coffee segment as it enjoys higher and more stable prices. This was because positioning Rwanda as a specialty coffee producer would best enable the coffee sector to contribute to the growth and prosperity of the country. During the period of 2002 to 2006, coffee has again become one of the country's foremost exports, with receipts growing at an average of 30% per year. In 2009, a second National Coffee Strategy was developed, which demonstrated that in order for the coffee sector to be reliable and consistent, Rwanda coffee traders must meet buyers’ expectations by building strong relationships with them (National Coffee Strategy, 2009).

Rwanda coffee production increased by 18%; from 16,924,952kg in 2014/2015 to 20,029,326kg in 2015/2016 (NAEB, 2015, NAEB, 2016). This increase was mainly due to improved use of agronomical practices. In 2016/2017, there was a decrease in coffee production by 8% because the coffee production was 18,502,442kg (NAEB, 2017). The production of fully washed coffee from July 2015 to June 2016, increased compared to the other coffee types; it accounted for 49% while semi-washed coffee represented 33.51% of the total coffee produced in 2015/2016. Its increase is attributed to the constant mobilization of farmers to supply coffee cherries to the coffee washing stations.
In 2016/2017, the fully washed coffee represented 52% of the total coffee produced and the target was to produce 71% by 2018 (NAEB, 2017).

The volumes of exported coffee also increased by 18% from 16,529,690kg in 2014/2015 to 19,560,636kg in 2015/2016 (NAEB, 2015, NAEB, 2016). In 2016/2017, there was a decrease in coffee exports by 5.4% because the quantity of coffee exports was 18,439,111kg (NAEB, 2017). In terms of export revenues, there was a decrease of value by 5% from USD $64,029,171 in 2014/2015 to USD $60,718,061 in 2015/2016. This decrease is normally attributed to a decrease by 20% of average export price per kilogram which was $3.87 in 2014/2015 and became $3.1 in 2015/2016. In 2016/2017, the coffee export revenues decreased by 4%; in that fiscal year, Rwanda received USD $58,526,023 in coffee exports while the target was to generate 67.8 million USD dollars.

Rwanda coffee is exported to different continents including Europe, America, Asia and Africa. Majority of Rwanda coffee is exported to the European countries. During the year of 2015/2016, 34% of the total coffee exported were sent to Switzerland, 26% to USA, 18% to Belgium, 10% to UK, 8% to Singapore and the other countries include Canada, Germany, Norway, Kenya, South Korea, China, and Japan ((NAEB, 2015/2016). During 2016/2017, Rwanda coffee was largely exported to the European market where more than 60% were exported to EU markets, 47% of the coffee volumes were exported to Switzerland while 20% to USA, 10% to Belgium, 7% to UK. Other countries such as Germany, Denmark, Kenya, Norway, Poland, Singapore, South Korea, Canada and Australia import low volumes (NAEB, 2016/2017).

With the liberalization of coffee to open international markets and increase market opportunities, exporters have more choice about to whom to sell and how to market their coffee. This increased openness is part of a larger government effort on exports in the country, as stated in Rwanda’s Vision 2020 and Economic Development and Poverty Reduction Strategy (EDPRSII) which are strategic guiding documents for economic transformation and change (IFAD, 2006).
The liberalization of the coffee sector has had a number of positive effects. First, farmers have increased income to shift some production from semi-washed to fully washed coffee (NAEB, 2015). In many areas, farmers are grouped in cooperatives to set up coffee washing stations where cherries are processed, so that they can improve the quality of coffee by producing fully washed coffee. The number of coffee washing stations increased from 271 in 2016 to 297 in 2017 (NAEB, 2016 and NAEB, 2017). Coffee exporters are also competing for opportunities to sell Rwanda coffee to foreign buyers. As a result, Rwanda should produce high quality coffee and as the demand for the country’s specialty coffee is increasing.

Despite the progress seen in Rwanda, the coffee export processing firms are still facing a number of challenges which the country needs to overcome (Boudreaux, 2011). Therefore, it is important for coffee processors and exporters to understand different ways that can improve the quality of coffee and this can be done by selecting the best strategic management drivers, in order to achieve a high level of sales growth and enhance profits, and become internationally competitive with a long-term perspective. Thus, it is against this background that the current study aims at determining the influence of strategic management drivers on the growth of coffee export processing firms in Rwanda.

1.2. Statement of the Problem

One of the strategies for Rwanda to achieve its strategic goals as stated in Vision 2020 and EDPRS II is to establish how the coffee export sector, among other export commodities, can be enhanced to generate external earnings capable of financing several other activities. This is because coffee is among the top five merchandise exports in Rwanda and plays a major role in the economy of the country, and contributes considerably to the monetization of the rural economy. Decision makers therefore need to understand key strategic success factors which should be used to add value to Rwanda coffee, in order to improve its quality and enhance the profitability of coffee export processing firms.
In 2016/2017, there was a decrease in coffee exports by 5% as the quantity of coffee exports was 18,439,111kg compared to 19,560,636kg in 2015/2016 (NAEB, 2017). In 2016/2017, the coffee export revenues also decreased by 4%; in that fiscal year, Rwanda received USD $58,526,023 in coffee exports compared to USD $60,718,061 in 2015/2016 and the target was to generate 67.8 million USD dollars in 2016/2017. It is also notable that Rwanda National Export Strategy implemented in 2009-2012 is not yet revised. Coffee export processing firms are therefore faced with many threats emanating from both local and global business environment and they are experiencing high degree of competition from coffee exporters from other advanced world coffee producing countries.

Several studies relevant to the research under study have been conducted but there are still no empirical evidence on whether strategic management drivers can influence the growth of coffee export processing firms in Rwanda. These studies include the following:

Loveridge et al., (2002) analyzed the impact of coffee washing stations (CWS) on coffee plantation and farmers' welfare in Rwanda. The results from this study were a good indicator of the positive impact of coffee washing stations to coffee growers’ income, to coffee plantation and to the welfare of coffee growers. Hermelo and Vossolo, (2007) found out that technology, diversification and productivity increase corporate growth in Ethiopia. Uzel et al., (2014) examined the effect of strategic management drivers on organizational performance of the Hotels in the Kenyan Coast. The study concluded that organizational structure, organizational culture, organizational communication, and organizational leadership in Kenya have an influence on hotel performance.

Bunyasi et al., (2014) examined the effect of access to business information on the growth of small and medium enterprises in Kenya. The study found out that access to business information had a significant effect on the growth of small and medium enterprises in Kenya. Namusonge (2014) argued about linking competencies with strategies: The case of small and medium-sized exporting firms in Kenya and found an important linkage between the two.
Murekezi et al., (2012) discussed whether organizational forms of the coffee supply chain matter in poverty reduction in Rwanda and the results demonstrated that there was no indication that farmers who sell to cooperative factories get more benefits than farmers selling to private processing plants. Oyedijo (2012) analyzed the effects of product and market diversification strategy on corporate performance and growth, and concluded that the financial performance and sales growth of firms in Nigeria were significantly affected by the mode of diversification used.

Guariso et al., (2012) did a research on "The Rwandan Coffee Sector: Out of the Ordinary". This research discussed about the transformation of Rwanda coffee from a supplier of ordinary coffee to a player on the market for specialty coffee. The study concluded that quality coffee needs careful processing methods. The study by Uzel (2012) established the effect of Strategic Value-based Management on the Performance of organizations in Kenya, specifically the performance of hotels in Kenyan Coast. This study indicated that value-based management had a positive effect on the performance of hotels.

Du and Temouri (2015) stated that the growth and the increase in resource acquisition capabilities provide a positive feedback loop, which continues until the organization matures. The firm can use these resources to reinvest for expansion, to gain more market control, and make even more profits. This positive feedback continues until limiting factors like an increase in competition or the depletion of resources takes effect. Much research efforts have been targeted particularly at investigating the factors affecting firms' growth, but it seems that not very strong factors have been identified, to explain which firms will grow or how they will grow (Garnsey et al., 2006).

Namusonge (2010) identified strategies used by businesses during the growth process, and also identified barriers and incidents which facilitate or hinder the growth of small and micro-enterprises during the growth process. Murekezi (2009) argued that growing a large number of staple crops was positively associated with household expenditures for both coffee growers and non-coffee farmers. Moreover, this research realized that
increasing farm size per capital, off-farm income opportunities and formal wage were associated with increasing household income.

Ramezani et al., (2002) did a study on the determinants of firm growth in an integrated way and classified the determinants into three dimensions: individual, organizational and environmental determinants. In this research, it was realized that firm growth is not static in nature. Murekezi and Loveridge (2009) discussed whether coffee reforms and coffee supply chain affect farmers’ income, with a case study of coffee growers in Rwanda and realized that low prices on the international coffee markets have worsened the economic well-being among coffee farmers. However, the study indicated that farmers benefited from coffee reforms by increasing their consumption over time.

Murekezi (2003) did a research on the profitability analysis and strategic planning of coffee processing and marketing in Rwanda: A case study of Maraba Association. The study indicated that investing in coffee processing and marketing by coffee growers' associations such as the Maraba association is profitable as long as there is a market for high quality coffee. In addition, strategic analysis and planning identify key success factors as well as strategies that should be implemented to enable the Maraba association to be successful in the future.

Most of these studies were either carried out in areas not related to coffee export processing firms or outside Rwanda. It was on the background of the above worrying trend that this study carried out a comprehensive study seeking to determine the influence of strategic management drivers on the growth of coffee export processing firms in Rwanda, to shed new light to the Government and other stakeholders on how effective strategic management drivers can turn around the growth of coffee export processing firms in Rwanda.
1.3. Research Objectives

The objectives of the study were divided into general and specific objectives as follows:

1.3.1. General Objective

The general objective of this study was to determine the influence of strategic management drivers on the growth of coffee export processing firms in Rwanda.

1.3.2. Specific Objectives

The study was guided by the following specific objectives:

1. Determine the influence of strategic value addition on the growth of coffee export processing firms in Rwanda;
2. Identify the influence of product and markets diversification on the growth of coffee export processing firms in Rwanda;
3. Determine the influence of business environment on the growth of coffee export processing firms in Rwanda;
4. Identify the influence of strategic human capital on the growth of coffee export processing firms in Rwanda.

1.4. Research Hypotheses

The study tested the following alternative hypotheses:

$H_{a1}$: There is a significant influence of strategic value addition on the growth of coffee export processing firms in Rwanda.

$H_{a2}$: There is a significant influence of product and markets diversification on the growth of coffee export processing firms in Rwanda.

$H_{a3}$: There is a significant influence of business environment on the growth of coffee export processing firms in Rwanda.

$H_{a4}$: There is a significant influence of strategic human capital on the growth of coffee export processing firms in Rwanda.
1.5. Significance of the Study

This study sought to establish the influence of strategic management drivers on the growth of coffee export processing firms and hence is expected to yield valuable information to be used by different stakeholders relevant to the study including the management in making strategic decisions, resulting in the growth of coffee export processing firms.

1.5.1. Coffee Exporters and Processors

Coffee processors and exporters were selected for this study in order to help them identify efficient and effective strategic management drivers which would respond to the growth of their firms. Therefore, this study enables coffee processors and exporters to make informed decisions that will enhance the growth of coffee export processing firms and come up with policies which can ensure the sustainability of superior firm performance and organizational success in the face of global competition. effectively pay attention to boost superior performance of their firms. In addition, the study is expected to help coffee processors and exporters to revive appropriate internal and external strategies in relation to marketing their coffee on local, regional and international markets and increase their profits.

1.5.2. Policy Makers

The study findings acted as a guide to policy makers to come up with policies, and in making sound decisions that translate business strategies into deliverable results in order to maximize the growth of coffee export processing firms and create more economic value. This study will assist policy makers and work as a reference for future policies involving strategic management and coffee export processing firms. It provided important information on how the Government of Rwanda through the relevant Ministries like MINICOM, MINECOFIN and Public Institutions like NAEB can effectively capitalize on the coffee export sector towards the achievement of objectives related to coffee exports in the national policies like Vision 2020 and National Strategy for Transformation (NST1).
1.5.3. Coffee Farmers

This study provided necessary information which would help farmers in improving the production, productivity and the quality of coffee produced. Farmers were made aware that coffee processed in coffee washing stations is more beneficial to the farmers themselves, coffee processors and exporters, and the country as a whole.

1.5.4. Community

A crisis in the coffee sector creates social imbalances as most of coffee farmers live in rural areas, and this is a general downturn in the rural economy, and potential for instability. Once the coffee production is increased, coffee product and markets diversification looked into, business environment improved, human capital capacity enhanced, then the whole community will gain. This study therefore provided necessary information to the community about the influence of the identified strategic management drivers on the growth of coffee export processing firms in Rwanda.

1.5.5. Scholars

This study adds to the existing body of academic knowledge in the area of strategic management in general, while specific emphasis was put on the link between strategic management drivers and the growth of coffee export processing firms in Rwanda. The study findings formed a solid background for scholars interested to further do research in this area. Researchers would thus use this study as a springboard for further research to determine the link between strategic management drivers and the growth of coffee export processing firms in Rwanda.

1.6. Justification of the Study

Coffee export processing firms were selected because coffee is at the forefront of other commodities in the world economy after oil (Giovannucci and Koekoek, 2003). In Rwanda, coffee export is one of the major economic drivers, therefore a study on the
The influence of strategic management drivers on the growth of coffee export processing firms in Rwanda can significantly add value to coffee export processing firms themselves, policy makers and the country as a whole.

Up to 2016, there were 78 coffee export processing firms registered in Rwanda which had contributed immensely to the national economic development and in the current hyper-competitive era and ever changing business environment, there was an urgent need to carry out a comprehensive study in this area to enable coffee export processing firms in Rwanda to be more profitable and achieve sustainable competitive advantage. Hence this study aimed at seeking to determine the influence of strategic management drivers on the growth of coffee export processing firms in Rwanda.

1.7. Scope of the Study

This study covered all coffee export processing firms in Rwanda. The study was confined only to the four study variables which included: strategic value addition, product and markets diversification, business environment and strategic human capital so as to address the study objectives. The main reason for focusing on coffee export processing firms is because coffee export is a major contributor to the GDP and it is also one of the major flagship of Vision 2020. Coffee export processing firms operate in the global competitive environment. The managers of coffee export processing firms and other stakeholders with relevant activities provided an in-depth knowledge and practices, in relation to the influence of selected strategic management drivers on the growth of coffee export processing firms in Rwanda.

1.8. Limitation of the Study

Coffee export processing firms experience many problems both financial and non-financial. The choice of the research problem limited the scope of the study to strategic management drivers. There were other related problems that would have been studied but the influence of strategic management drivers on the growth of coffee export processing firms in Rwanda was found imperative. The access to some Chief Executive
Officers (CEOs) of coffee export processing firms was limited; therefore the researcher faced a challenge of the time taken to return the questionnaires because most of the respondents did not fill them within the expected time, and some of them even assigned knowledgeable and experienced technical staff to fill the questionnaire.

The researcher dealt with this challenge by finding the respondents physically through several visits and several phone calls. Some respondents also had reservations about the questionnaire as they felt that their privacy was being interfered with. This was handled by taking time to explain to them and assuring them that the results would be used for academic purposes only, and that the information provided would be treated confidentially. Where necessary in some cases, the researcher sat with respondents so that she reads questions one by one and then they were answered by respondents within a short time.

The target population was limited to the Chief Executive Officers of coffee export processing firms and other staff from NAEB, MINECOFIN and MINICOM who deal with activities related to coffee processing and exports in their day to day duties and responsibilities, the study left out farmers, technical staff from coffee export processing firms and other stakeholders who would have enhanced the inquiry and improved results of the study. Though those people would have given their own opinion and experience, the target population was assumed to have sufficient information relevant to the study.

Besides, the study was limited to coffee export processing firms in Rwanda, but other researchers can carry out research on coffee export processing firms in other countries. Only six (6) strategic management theories were used in the study, however, there are many other theories relevant to the study that can be used by other researchers to expand the knowledge in the area of study.
CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter reviews the relevant literature on study variables, and considers the theoretical framework based on variables of interest. The independent variables, namely strategic value addition, product and markets diversification, business environment and strategic human capital are linked, through a conceptual framework, to the dependent variable which is the growth of coffee export processing firms. The chapter also provides an empirical review of the study variables. The literature review is guided by the research objectives. Reviewed literature was further critiqued to get the research gaps that the researcher will attempt to address and at the end of this chapter, a summary of the literature review will be given.

2.2. Theoretical Framework

The study considered the relevant strategic management theories that supported the study variables in advancing the logical argument of the relevance of strategic management drivers in influencing the growth of coffee export processing firms in this era of technological advancement and globalization. Theories are analytical tools for understanding, explaining, and making predictions about a given subject matter (Barney et al., 2001). To achieve the objectives of this research, the study was anchored on the following theories: the resource based view theory, dynamic capabilities framework, human capital theory, agency theory, stakeholder theory, and growth theory.

2.2.1. Resource Based View Theory

The resource based view theory of the firm was originally developed by Wernerfelt in 1984 and the significance of this contribution is evident in its being awarded the strategic management journal best paper prize in 1994 for reasons such as being truly seminal, and an early statement of an important trend in the field (Fahy, 2000). Halawi et al., (2000) has reasoned that the principal contribution of the resource based view of
the firm has been a theory of competitive advantage. The resource based view of the firm predicts that certain types of resources owned and controlled by firms have the potential and promise to generate competitive advantage and eventually superior firm performance (Ainuddin et al., 2007). It starts with the assumption that the desired outcome of managerial effort within the firm is a sustainable competitive advantage.

A sustainable competitive advantage can be obtained if the firm effectively deploys its unique resources in its product-markets. Therefore, the resource based view theory emphasizes strategic choice, as well as on the firm’s management with the important tasks of identifying, developing and deploying key resources to maximize returns (Makadok, 2001). Lin (2003) has further suggested that technology transfer can be a significant source of competitive advantage for firms in developing countries with limited research and development resources.

Molina et al., (2004) has further advanced an integrative framework on the determinants of competitive advantage in global competition namely creation and innovation, competition, cooperation and co-option, whereas Rodriguez Perez & De Pablos (2003) explained that the competitive advantage of an organization lies to a great extent in its ability to identify and transfer strategic knowledge between its geographically dispersed and diverse locations.

The resource based view theory stipulates that in strategic management, the fundamental sources and drivers to firms’ competitive advantage and superior performance are mainly associated with the attributes of their resources and capabilities which are valuable and costly to copy (Barney, 2001a; Mills et al., 2003; Peteraf & Bergen, 2003). Bowman and Ambrosini (2003) state that firm resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc that enable the firm to conceive and implement strategies that improve its efficiency and effectiveness. The theory asserts that a firm gains sustainable competitive advantage when it implements strategies which cannot be copied by competitors. Resources that qualify to
be sources of competitive advantage must be rare, strategic, inimitable, non-substitutable, and appropriate (Ling & Jaw, 2011).

Furthermore, other studies have indeed provided support on the importance of having a good strategy to attain competitive advantage from the resource based view theory (Hult & Ketchen, 2001; Ramsay, 2001; Adner & Helfat, 2003; Powell, 2001; Porter & Kramer, 2006). They mentioned that the resource based view theory has indeed provided an avenue for organization to plan and execute its organizational strategy via examining the position of its internal resources and capabilities towards achieving competitive advantage (Kristandl & Bontis, 2007; Sheehan & Foss, 2007).

As for the continued relevancy and validity of the resource based view theory on sustainable competitive advantage, Priem & Butler (2001) emphasized that greater understanding of the dynamics of resource development continues to be essential in advancing resource based view theory of competition. Though resource based view has had its critics, it is still relevant and valid in conceptually explaining and underpinning the notion of firm’s sustainable competitive advantage. Peteraf and Bergen (2003) propose a market-based and resource-based framework to identify direct and indirect competitors.

This theory is relevant to the specific objectives of the study which are: -to determine the influence of strategic value addition on the growth of coffee export processing firms; to identify the influence of product and markets on the growth of coffee export processing firms; to determine the influence of business environment on the growth of coffee export processing firms; and to identify the influence of strategic human capital on the growth of coffee export processing firms. This is because resource based view of the firm predicts that certain types of resources owned and controlled by firms have the potential and promise to generate competitive advantage and eventually superior firm performance (Ainuddin et al., 2007).
2.2.2. Dynamic Capabilities Theory

There are various definitions of dynamic capabilities, but the original definitions referred to the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environment (Teece & Al-Aali, 2011). Helfat et al., (2007) define dynamic capability as the capacity of an organization to purposefully create, extend, or modify its resource base. Similarly, Helfat & Peteraf (2003) suggest that dynamic capabilities involve adaptation and change as it builds, integrates, or reconfigures other resources and capabilities. Einsenhardt & Martin (2000) describe dynamic capabilities as the firm’s process that utilizes resources, specifically the processes to integrate, reconfigure, gain and release resources to match and even create market change.

Zollo & Winter (2002) define dynamic capabilities as learned and stable pattern of collective activity through which organization systematically generates its operating routines in pursuit of improved effectiveness. Despite these different perspectives, they share similarities where all definitions tend to assume dynamic capabilities as firm-specific process, activities or routines, and also put the inimitability of the firm capacity to build and reconfigure the resource base as the key to attain competitive advantage.

Barreto (2010) emphasized that the dynamic capabilities approach consists of five main elements that emphasize its major theoretical underpinnings. First, they categorized the nature of the concept as being an ability or capacity, stressing the critical role of strategic management. Second, they specified the role of the capability as being to integrate or coordinate, build, and reconfigure internal and external competences. Third, it focused on a particular type of external context, namely rapidly changing environment. Fourth, it is assumed that dynamic capabilities are typically built rather than bought and that their creation and their evolution are embedded in organizational processes that are shaped by firms’ asset positions and the evolutionary paths they have adopted in the past. Fifth, it emphasized that dynamic capabilities are heterogeneous across firms because they rest on firm-specific paths, unique asset positions, and distinctive processes.
The dynamic capabilities paradigm is perhaps best represented by Teece’s (2007) dynamic capabilities framework, which stated that the term “dynamic capabilities” highlights two key aspects that were previously oversimplified. First, the term dynamic refers to changing business environment that requires the capacity to renew competences and innovative responses. Secondly, the term capabilities is seen as the manner in which firms appropriately adapt, integrate, and reconfigure their internal and external skills, resources and competences in order to respond to a changing environment.

Ambrosini & Bowman (2009) pointed out that it is essential to consider the changing nature of the external environment and hence the role of strategic management, which is principally about adapting, integrating and configuring internal and external organizational skills, resources and functional competences toward the changing environment so as to respond to changing technologies and markets and escape the zero-profit condition.

Teece (2007) argued that dynamic capabilities are the foundation of enterprise-level competitive advantage in regimes of rapid technological change. Augier & Teece (2007) added that the dynamic capabilities framework was not only to give emphasis to traits and process needed to achieve good position in a favorable environment, but it also endeavors to explain new strategic considerations and the decision-making disciplines needed to ensure how the business could be reconfigured when the market and/or the technology inevitably is changed once again.

In rapidly changing environment, competitive success arises from the continuous development and reconfiguration of firm specific assets (Teece, 2007). Since it composites an internal and external strategic factors, this most recent paradigm provides a valuable point of view in securing competitive advantage of the firm. Hence Eisenhardt & Martin (2000) suggest that to enable the concept of dynamic capabilities to be useful for strategic management, as a field of study, and for practitioners, it should be fully researched in the near future.
This theory is linked to the variables of interest because resources such as adequate finance and competent human resources are crucial for the effectiveness of market entry strategy management practices in a rapidly changing environment (Wade & Hulland, 2004).

This theory is adopted in this study as it analyzes internal and external resources and competences toward the changing environment so as to respond to changing technologies and markets. This theory is relevant to the specific objectives of the study which are: to determine the influence of strategic value addition on the growth of coffee export processing firms; to identify the influence of product and markets on the growth of coffee export processing firms; to determine the influence of business environment on the growth of coffee export processing firms; and to identify the influence of strategic human capital on the growth of coffee export processing firms. This is because the dynamic capabilities framework involves the infrastructure interrelations, human resource management, finance, and technological interrelations. Those activities are included in every function of the value chain (Ireland et al., 2009).

2.2.3. Human Capital Theory

Human Capital Theory was proposed by Schultz (1961) and developed extensively by Becker (1964). Schultz (1961) in an article entitled “Investment in Human Capital”, introduced his theory of Human Capital and argued that both knowledge and skills are a form of capital, and that this capital is a product of deliberate enterprise growth. The concept of human capital implies an investment in people through education and training. Schultz compares the acquisition of knowledge and skills to acquiring the means of production. Schultz argues that investment in education and training leads to an increase in human productivity, which in turn leads to a positive rate of return and hence growth of businesses.

According to Goldin (2014) human capital theory has a notion that there are investments in people (education and training) and that investment increases individual productivity.
From education and training, Jehanzeb and Bashir (2013) observe that human capital development generates benefits for the individual and the organization. For the individual, the benefits lie in acquiring soft and technical skills required by the organization to enhance efficiency and for the organization, human capital makes it solvent and competitive in the market.

Armstrong (2012), Odhong et al., (2014) stated that human capital theory helps to determine the impact of people on the business and their contribution to shareholder value. It demonstrates that human resource practices that produce value for money in terms, for example, of return on investment. According to Dae-bong (2009), human capital theorists believe that education and earning power are correlated, which means, theoretically, that the more education one has, the more one can earn, and that the skills, knowledge and abilities that education provides can be transferred into the work in terms of productivity.

Human capital refers to the knowledge, expertise, and skills one accumulates through education and training (Severine & Lila, 2009; Marimuthu et al., 2009; Armstrong (2014), Odhong et al., (2014), Jelena et al., (2012) conducted a study on the impact of knowledge management on organizational performance. The aim of this study was to show that through creating, accumulating, organizing and utilizing knowledge, organizations can enhance organizational performance.

Tahir, Yousafzai, Jan and Hashim (2014) observe that companies invest in their employees to take advantage of the human capital management which was closing skills gap that was a critical area of human resource development and helps a firm to continuously penetrate the market. A review of a number of earlier studies by Marimuthu et al., (2009) on the benefits of human capital development found out that human capital development has a positive correlation with organizational performance. Accordingly, human capital development results in higher performance and sustainable competitive advantage, higher organizational commitment and enhanced retention and contributes significantly in the strategic planning on how to create competitive advantage.
This theory emphasizes the value addition that people contribute to an organization. It regards people as assets and stresses that investments by organizations in people will generate worthwhile returns. Human capital theory proposes that sustainable competitive advantage is attained when the firm as a human resource pool cannot be imitated or substituted by its rivals. For the employer, investments in training and developing people are a means of attracting and retaining competent people (Becker, 2009).

The returns are expected to be improvements in performance, productivity, and the capacity to innovate that should result from enlarging the skills base and increasing levels of knowledge and competence. Schuler & Jackson (2007) suggest that the general message in persuasive skills, knowledge and competence are key factors in determining whether organizations and firms will prosper or not. According to Hessels & Terjesen (2008), human capital refers to an individual’s knowledge, skills and experiences. Moreover, highly educated people may leverage their knowledge and the social contacts generated through the education system to acquire resources required to create their venture (Shane, 2000).

In addition to education, special human capital attributes such as capabilities that they can directly apply to the job in the firm, may be of special relevance in explaining enterprise growth (Colombo & Grilli, 2010). The strategic human capital can as well be attained through precise trainings and previous experience. These kinds of specific human capital attributes also include knowledge of how to manage a firm (Wright et al., 2001).

The human capital theory is relevant to the specific objective of the study which is: to determine the influence of strategic human capital on the growth of coffee export processing firms. This is because investment in human capital leads to greater output and human capital is described as a key element in improving a firm’s assets in order to increase productivity as well as sustain competitive advantage. The human capital theory will help coffee export processing firms to identify the skills, capabilities, knowledge and experience required for them to prosper in a rapidly changing environment. Strategic human capital forms one of the fundamental drivers to firms’ competitive advantage and
superior performance. Therefore, the theory forms the background upon which the influence of strategic human capital on the growth of coffee export processing firms will be analyzed.

### 2.2.4. Agency Theory

Agency theory is a strategic management approach where one individual (the agent) acts on behalf of another (the principal) and is supposed to advance the principal’s goals (Dobbin & Jung, 2010). The agency theory stresses the underlying important relationship between the shareholders or owners and the agents or managers in ensuring the success of the organization. Gosling & Mintzberg (2003) contends that strategies emanate from the agency theory as it is the agents that are judged with the responsibility of strategic formulation by other stakeholders who have direct control over the firm. Gibbons (2004) calls the agency theory the simplest possible theory of strategic management; one boss (or principal) and one worker (or ‘agent’).

Ackermann and Collin, (2004) contend that the agency theory is indeed the critical element in strategy formulation since for all organizations, the nature of strategy will be most contingently influenced by the agents. Ackermann and Collin (2004) further indicated that most important outcomes of strategy making for organizations is that of developing a way of better managing the link between the competing demands of different stakeholders. He concludes that stakeholders determine the ability of an organization to achieve its aspirations.

Krueger (2004) in his paper of strategic management and management by objectives stated that the plethora of strategic management is the agency theory in practice at all levels of the strategic management process. He confirmed that starting from the corporate strategy to operational strategy, the objectives designed at all these levels must be supervised by the agents or managers for the organization to achieve its objectives. Management by objectives which observes that organization must formulate objectives at all strategic hierarchy levels was also cited by Henry et al., (2014) who indicated that for these objectives to be achieved, there has to be
collaborative efforts between the managers as agents and subordinates. Strategic management programs require top managers to provide clear and visible support to the program; without that support of the manager as the agent, the synthesis between the individual and the organization goals does not develop.

Bonazzi & Islam (2007) observe that strategy formulation relies upon a team approach that flows from the corporate level to the functional level of the firm. The process relies on input from all levels of management (top to bottom and bottom up). His paper shows that at the stage of strategy formulation, the Chief Executive Officer should as the agent not be single minded but should involve other stakeholders and agents of strategy formulation at all levels of the organization. The manager as the agent should therefore embrace synergy by searching for information resulting in an evaluation of the task to be carried out (strategy formulation) and secondly he proposes a strategy to the board (by identifying the principles to be followed), for their agreement and then carries out the agreed task (strategy implementation) in order to gain competitive advantage.

The theory is relevant to the specific objective of the study which is: to determine the influence of strategic human capital on the growth of coffee export processing firms. The agency theory is very relevant to this study because it shows the synergy and involvement of owners, managers and employees of each coffee export processing firms toward the firm's survival and sustainable competitive advantage.

A firm is said to have a sustained competitive advantage when it is able to implement a value creating strategy not simultaneously being implemented by any potential competitors and that other firms are unable to duplicate the benefits of this strategy. Therefore, this theory forms the background upon which the relationship between human capital and coffee export processing firms will be analyzed.
2.2.5. Stakeholder Theory

Stakeholders are considered to be entities that are affected in various ways by the undertakings of an organization. The stakeholder theory has first been depicted in detail by R. Edward Freeman as an approach to strategic management in 1984, which basically considers multiple stakeholders when it comes to decision making, and focuses on value creation for these groups which have a stake in the firm (Laplume et al., 2008). Friedman and Miles (2006) argued that organizations should consider the interests of stakeholders because they influence the performance of firms in various ways.

A firm is therefore an interrelationship of various stakeholders who influence the organization both externally and internally. Hence, organizations should develop tactics to respond to the needs of stakeholders in order to prevent the negative effects of stakeholders’ activities, because they have a very big influence on the core activities of an organization (Fassin, 2009). Stakeholders are those groups within or outside an organization that can affect or are affected by the achievement of an organization’s objectives or affects strategic decision making within an organization (Mansell, 2013).

The principle by Mansell is summarized in the figure 2.1 as follows:

![Stakeholder Diagram](attachment:image.png)

**Figure 2.1. Firm’s internal and external stakeholders**

Source: Mansell (2013)
Thus, there are groups within and outside the organization, which are affected by the organization, are interested in the organization’s success, or affect the organization in some way (Maury & Pajuste, 2005). Furthermore, managing stakeholders and their interests enhances organizational profits (Parmar et al., 2010). To determine firms’ stakeholders, one needs to assess which groups are impacted by the firms’ actions and decisions, and which groups do influence the firms, and there is no one major stakeholder with priority over the others (Choi & Wang, 2009; Freeman et al., 2007).

Moreover, stakeholder theory mainly states that a business’s survival is dependent on the management of stakeholder relationships, of which business is made up. A business’s job is to maximize value for its stakeholders (Friedman and Miles, 2006; Thomsen et al., 2012). Additionally, the management of stakeholder relationship is considered a moral endeavor (Phillips et al., 2003). Hence an obligation for companies arises to minimize negative externalities, and act in the best interest of stakeholders, as long as it does not hinder the business’s success (Branco & Rodrigues, 2006). Adopting stakeholder relationships as a unit of analysis enhances the organization’s effectiveness. Organizations should therefore develop strategies for stakeholder management such as leading, collaborating, defending, educating and motivating stakeholders (Bosse et al., 2009).

Alhaji & Yuseff (2012) argue that the stakeholder theory is good in explaining the purpose of corporate governance by describing different stakeholders that constitute an organization. The managerial importance of stakeholder management has been accentuated in various studies (Jawahar & McLaughlin, 2001; Rowley & Moldoveanu, 2003) that demonstrate that just treatment of stakeholders is related to the long-term survival of the organization. Establishing the strategic importance of stakeholder groups then helps organizations determine what the nature of their stakeholder management strategies should be.

This theory shows that for coffee export processing firms to prosper and reach a sustainable growth rate, there is need to enforce the relationship between all coffee
actors. While the firm's growth is the ultimate goal of each firm, a sustainable growth rate requires that the quality of coffee is attained at each level of the coffee value chain. Thus, the theory focuses on all the specific objectives: - to determine the influence of strategic value addition on the growth of coffee export processing firms; to identify the influence of product and markets on the growth of coffee export processing firms; to determine the influence of business environment on the growth of coffee export processing firms; and to identify the influence of strategic human capital on the growth of coffee export processing firms.

Stakeholder theory is concerned with the nature of the relationships between a firm and its stakeholders in terms of both processes and performance for the firm and its stakeholders as all stakeholders have intrinsic value, which directly affects firm's performance. The theory asserts that coffee export processing firms should always seek to provide a balance between the interests of all its stakeholders.

### 2.2.6. Growth Theory

The growth of firms is something inherent to their actual existence. Throughout their life, firms must grow continuously if they want to sustain their competitive position within an environment where other rival firms may be growing at a faster pace (Thomson & Strickland, 2007). A growth-oriented firm is not only able to attract the most talented executives but it would also be able to retain them. Muia, (2011) found out that firms can be encouraged to embrace the growth strategy especially when pursuing the profitability and wealth objectives. While some surveys show that growth is not an objective for all firms, the ability of firms to grow is important, because it has been suggested that firms with low or negative growth rates are more likely to fail (Colombelli et al., 2014).

King and McGrath (2002) suggest that the strongest companies are those that recognize and understand the importance of both innovation and improvement. These companies never stop growing and are the true value growers. High growth firms make use of
external relations (Lechner, et. al., 2006) and growth is a combination of environmental and leadership processes (Klette & Griliches, 2000).

Mengistie (2012) established that labor quality, asset, productivity, and leverage positively affect growth. Mulunga (2010) also found out that lack of regulatory and policy framework, lack of capital and high operational costs negatively affected the growth of microfinance institutions in Namibia. Aggarwal (2012) identified cultural, institutional, economic, geographic and legal framework as factors that foster the growth of microfinance institutions. Bigsten & Gebreeyesus, (2009) also examined the relationships between firm growth and firm size, age, and labor productivity. Mwobobia (2012) identified lack of finance, discrimination, multiple duties and lack of education as negatively affecting corporate growth.

Muia (2011) identified profitability, industry concentration, sales growth, stock market index, and Gross Domestic Product as the major factors influencing growth of firms in Kenya. Maina (2011) found out that information technology, funds, technical skills and market research positively affect growth of microfinance institutions. Namusonge (2010) identified strategies used by businesses during the growth process, and identified barriers and incidents which facilitate or hinder the growth of Small and Micro Enterprises during the growth process. Coad (2009) affirmed that firm’s growth is a stochastic process and is randomly distributed across firms, and that it is independent of firm-specific characteristics such as firm size and firm age. Not only firm-specific characteristics, principally size and age, but also other characteristics, such as research and development, innovation, strategy and finance, affect firm growth.

As firms keep growing, so does their ability to acquire resources. This means that the more they grow, the more capacity in resource acquisition they have and the more resources they can access. This growth and the increase in resource acquisition capabilities provide a positive feedback loop, which continues until the organization matures (Schimke, 2011). The firm can use these resources to reinvest for expansion, to gain more market control, and make even more profits. This positive feedback will
continue until limiting factors like an increase in competition or the depletion of resources takes effect (Ansoff & McDonald, 2003).

Mbiti et al., (2015) stated that growth means increase in sales turnover, increase in profitability levels, increase in the number of employees, production lines, services and total capitalization. However, not all enterprises' first and foremost objective was growth (Njeru, Namusonge & Kihoro, 2013). Some enterprises are established merely to exploit a short-time opportunity.

Zhou and Wit (2009) have studied the determinants of firm growth in an integrated way and classified the determinants into three dimensions: individual, organizational and environmental determinants. Firm growth is not static in nature. Firms grow in many different ways and the patterns of growth can vary significantly and have different causes (Delmar, et al., 2003). Research on firm growth has identified three major strategic choices for firm growth; undertaking internal expansion, conducting mergers and acquisitions, and developing trust-based network relationships.

Further, a firm’s growth and survival depend on its capacity to learn and adapt its strategies to the changing environment (Johnson, et al., 2008). A firm can grow by expansion of the current activities which is referred as “organic growth”. Firms can also grow by acquiring existing businesses. Trust-based relationships are based on interpersonal relationships to form networks and alliances.

Different types of growth have different implications for the firm managers and also have different impact on the firm performance. Firms that grow organically show a smoother growth pattern over time compared to firms that grow mainly through acquisitions. Firms early in their life cycle and small firms tend to take the organic growth path whereas mature and large firms predominantly grow by acquiring existing businesses (, et al., 2006).

In the same way, Gilbert et al., (2006) highlighted that growth is a function of the decisions an entrepreneur makes, such as how to grow internally or externally and
where to grow in domestic market or international market. Mateev & Anastasov (2010) found that firms’ growth is related to its size as well as other specific characteristics like financial structure and productivity. Lorunka et al., (2011) further highlighted that apart from human capital resources, the growth of an enterprise can be predicted on the basis of commitment of the person starting a new enterprise. Muthaih & Venkatesh (2012) suggest that many factors contribute in the organization’s growth, and similarly, there are many barriers to growth.

Masurel & Monfort (2006) has also pointed out that reinforcement skills, self-commitment, risk-taking capacity, vision, and administrative mastery are required in the first few stages of an enterprise development. Once an enterprise reaches its prime stage, the manager needs to be results-oriented and should show proper planning and coordination skills. At the maturity stage, the enterprise should be backed by systems to achieve the target. Figure 2.2 summarizes the phases of growth by Masurel & Monfort (2006).

![Figure 2.2. Phases of growth](image_url)

**Figure 2.2. Phases of growth**

Source: Masurel and Monfort (2006)

Masurel & Monfort (2006) suggest that the growth of an organization is a result of many discrete efforts. As suggested by Blundel & Hingley (2001), growth may be achieved quickly, slowly, or not at all. It depends on the strength of the growth aspirations and growth-enabling factors of an enterprise. Leitch et al., (2010) also observe that three questions related to growth have been addressed at least to some extent: why, how, and how much. They further suggest that there is still a lot of scope of exploration on growth as internal process of development. Chen et al., (2008) suggest that the enterprise at different life cycle stages should focus on strengthening
capabilities. The growth theory is relevant and very key to this study which will determine the influence of strategic management drivers on the growth of coffee export processing firms. This theory is therefore relevant to the dependent variable; growth of coffee export processing firms. This is in relation to the assertion that firms must grow continuously if they want to sustain their competitive positions.

2.3. Conceptual Framework

Considering the views of Robson (2011), conceptual framework is the system of concepts, assumptions, expectations, beliefs, and theories that supports and informs your research. This study looked at the Influence of Strategic Management Drivers on the Growth of Coffee Export Processing Firms in Rwanda. The conceptual framework was derived from the theoretical framework of this study which were resource based view theory, dynamic capabilities framework, human capital theory, agency theory, stakeholder theory, and growth theory.

According to Zikmund (2010), a concept is an abstract or general idea inferred or derived from specific instances. A conceptual framework is a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation. Kothari, (2014) defines a conceptual framework as a hypothesized model identifying the model under study and the relationship between the dependent and independent variables. He defines an independent variable also known as the explanatory variable as the presumed cause of the changes of the dependent variable, while a dependent variable refers to the variable which the researcher wishes to explain. The goal of a conceptual framework is to categorize and describe concepts relevant to the study and map relationships among them.

The conceptual framework also refers to a graphical representation of the theorized interrelationships of the variables of a study (Odhiambo & Waiganjo, 2014). It is a diagrammatical representation that shows the relationship between independent variables and dependent variable (Jabareen, 2009). Mugenda (2008) also defines conceptual framework as a concise description of the phenomenon under study.
accompanied by a graphical or visual depiction of the major variables of the study. The conceptualization of variables is important because it forms the basis for testing hypothesis and coming up with generalizations in the findings of the study.

In this study, the independent variables were the conceptualized strategic management drivers; these are strategic value addition, product and markets diversification, business environment and strategic human capital. The conceptual framework further explained the sub-variables which were the measures that were tested in the questionnaire in order to reject or fail to reject (accept) the alternative hypotheses which were stated in this study. The dependent variable is the growth of coffee export processing firms. The indicators for each variable are clearly shown in the conceptual framework of this study. Figure 2.3 represents the relationship between the independent and dependent variables.

### Independent Variables

- **Strategic Value Addition**
  - Continuous Improvement of High Quality Coffee
  - Export-Oriented Coffee Processing

- **Product and Markets Diversification**
  - Product Diversification
  - Markets Diversification

- **Business Environment**
  - Infrastructure Development
  - Access to Finance
  - Regional and International Integration

- **Strategic Human Capital**
  - Intellectual Capital
  - Technical Skills
  - Experience

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### Dependent Variable

- **Growth of Coffee Export Processing Firms**
  - Sales Growth
  - Profits

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**Figure 2.3. Conceptual Framework**
2.4. Review of the Study Variables

This section discusses or reviews clearly how the study variables were explained in other studies. There are so many strategic management drivers which influence the growth of coffee export processing firms. However, some drivers are more crucial than others because when applied, they steer organizations to greater profitability (Namusonge et al., 2012). Hence, the strategic management drivers highlighted in this study were strategic value addition, product and markets diversification, business environment, and strategic human capital, and the dependent variable was the growth of coffee export processing firms.

2.4.1. Strategic Value Addition

Value addition is simply the act of adding value to a product, whether you have grown the initial product or not. It involves taking any product from one level to the next. Kim and Lalancette (2013) argued that value addition refers to product improvement as a result of growth in knowledge, skills and other attributes the employees have gained due to experience in the respective field over time. Value addition of coffee goes with improving the quality of coffee. Quality of coffee is a key factor for Rwanda’s access to the world coffee market. Belling (2000) highlighted that the price paid for different coffee qualities depends on the type of coffee, bean size (screen), processing, color, taste, and the reputation of the country of origin. Obtaining a price premium thus depends as much on the ability to get a quality coffee (Ponte, 2002). Quality attributes such as aroma, taste, cleanness, and so on may be improved through proper production and processing methods (Belling, 2000).

Coffee quality may seem subjective, since it is related to how it tastes and smells, and preferences and sensitivities can vary widely depending on international market of your choice. However, several researchers looked into which of the approximately 800 chemical compounds present in fully washed coffee were linked most strongly to aroma and perceived quality (Farah et al., 2006), and they found that the processing methods were very important (Bytof et al., 2000; Knopp et al., 2006).
Research on coffee quality has traditionally focused on varieties and environment (Vaast et al., 2006 and Silva et al., 2005), along with the processing methods (Arya & Rao, 2007), as the largest impacts on coffee quality (Bytof et al., 2000). Coffee quality is also dependent not only on post-harvest practices but also on picking time. Rwanda coffee is processed in "wet" form. For coffee to be processed in "wet", coffee farmers need to supply their coffee in fresh red-berries of a certain level of ripeness. Therefore, farmers should be sensitized on the best time of picking coffee cherries at the right ripeness to ensure good quality of processed coffee. Equally important is the timely delivery of coffee cherries to the washing stations before they are spoiled.

Coffee washing stations were established in Rwanda in 2000, and there was an increased interest from the private sector and cooperatives to establish more washing stations. At that time, Rwanda started with two (2) washing stations and the number has been increasing to the extent that there were 271 in 2016 and they increased up to 297 in 2017 (NAEB, 2016 and NAEB, 2017). In 2016/2017, the fully washed coffee in Rwanda represented 52% of the total coffee produced and the target is to produce 71% by 2018 (NAEB, 2017).

Rwanda has also been conducting the Cup of Excellence competition since 2008 and the competitions are very much related to the quality of Rwanda coffee; firms enter their coffee into the competitions and a panel of international coffee buyers tastes the coffee under competition and ranks them according to their quality attributes. The winning coffee is sold on auction where they have previously fetched up to USD $55 per kilogram of coffee. These competitions have raised the awareness of Rwanda coffee quality on the international market (NAEB, 2015). Rwanda coffee uniqueness in quality should therefore be emphasized so that Rwanda creates a visual identity for its coffee at regional and international markets.

2.4.2. Product and Markets Diversification

Product diversification is the growth engine for markets in terms of market size, and consumer mix world over. Product diversification implies several product lines are
developed for same or different markets and customers which ultimately increase revenues to the business (Charles, 2012). Export diversification has been at the center of the debate on how developing countries can improve economic performance and achieve high income. It may be argued that export diversification affects economic growth positively, but it may also be the case that rich countries are more able to diversify their production structures. The empirical evidence on this regard shows a non-linear relationship between income and product diversification (Imbs & Wacziarg, 2003). This has been extended to measures of export diversifications by Klinger & Lederman (2004).

Export diversification is often constrained by limited domestic capital, technology and market knowledge. Sometimes, it is easier to develop new products for the existing markets than to invest in business development for new markets. The advantage is that you already have a customer base and know what they want. The strategy leverages your knowledge of customer needs to offer products that complement those you already supply; as different markets matter for different prices. Other ways to penetrate the market could be by finding new customers for your product or by getting current customers to use more of your products (Free Management, 2015). Another objective of diversification is to reduce dependence upon one or a limited number of geographical destinations for export products (Cadot et al., 2007). The essence of strategy lies in creating tomorrow’s competitive advantages faster than the competitors (Kotler & Armstrong, 2008).

Market information on product and process requirements is key to being able to produce the right value for the right market (Trienekens, 2011). In this regard, finding value adding opportunities is not only related to the relaxation of market access constraints in existing markets, but also to finding opportunities in new markets and in setting up new market channels to address these markets. Baldwin and Harrigan (2007), Kang (2006), Campbell and Hopenhayn (2005) have shown that the market size matters for exporting a large number of fully washed coffee. To better compete on regional and international markets, coffee export processing firms should export coffee to identified destinations;
firms can learn about the regional and international markets they should export to, acquire the required capabilities to export to new destinations, and innovate to produce better products enabling them to compete on the regional and international markets.

The bulk of Rwanda coffee exports is concentrated in Bourbon Arabica coffee for the vast majority of its export revenues. Robusta coffee only accounts for 1% of the total exported coffee and brings in much smaller amounts of foreign earnings (Banjoko, 2015). There is therefore an evident need to diversify the coffee processed in Rwanda by conducting soil testing to see if Rwanda can cultivate other varieties of Arabica like it is the case in other regional countries. This is because the requirements for Bourbon Arabica are totally different from the requirements of other varieties of Arabica coffee in terms of soil and climate.

There is also a need to focus more on specialty coffee, which is expensive on the international markets, when compared with the price of ordinary coffee. Another type of coffee processed is roasted coffee. Roasting coffee transforms the chemical and physical properties of green coffee beans into roasted coffee products. The roasting process is what produces the characteristic flavor of coffee by causing the green coffee beans to change its taste. This is done by adding new features to existing products which finally increase sales (Guariso et al., 2012). Some customers might not have purchased Rwanda coffee in the past because those features found in roasted coffee were missing.

If Rwanda through export processing firms can identify such missing features and add them to its products, the size of its targeted market may increase. The price for roasted coffee almost doubles that of fully washed coffee (Gresser & Tickell, 2002). Coffee export processing firms should therefore be able to diversify its products without the development costs of a completely new product. Firms can diversify its products in one or more of the following ways: (i) Process: Increase efficiency and effectiveness of internal processes so that these are significantly better than those of rivals (for example, roasted coffee versus fully washed coffee); (ii) Product: Introduce new products or improve old products more quickly than rivals; (iii) Functional: Increase value added by
changing the mix of activities conducted within the firm or moving the locus of activities to different links in the value chain (Daft, 2010).

Regional and international trade cooperation is another important channel which helps in creating new opportunities for market diversification, which can occur through three major channels: new products to old markets; new products to new markets, and old products to new markets ((Balaam & Veseth, 2001). Therefore, coffee exporters and the Government of Rwanda should always look for new market opportunities for Rwanda coffee and should conduct intensive publicity and other promotion activities about Rwanda coffee so as to keep it known worldwide. The development and promotion of local consumption of coffee will create alternative markets for Rwanda coffee. Local markets will help to retain the value of coffee locally and in turn improve farmers’ incomes.

Diversification of markets usually requires a country to acquire new skills, new techniques, and new facilities. This results in the country entering new markets where it had no presence before. When existing accessible markets no longer offer scope for expansion, it is time to look for new markets (Nye, 2004). To analyze and better understand these dynamics, the following summarized framework can serve the purpose.

**Drivers of exports growth (firm view and macro view)**

![Diagram](image)

**Figure 2.4. Export dynamics tree**

Source: Gathani & Stoelinga (2012).
Gathani and Stoelinga (2012) stated that: (i) the three main vectors of export growth are destination discovery, product discovery, and firm-level productivity; (ii) incremental improvements happen both at the firm and macro-levels; and (iii) policy makers need to develop an understanding of all three dynamics to determine how to best support future exports growth. Therefore, Rwanda should tap into the unexploited potential markets to boost its coffee exports.

2.4.3. Business Environment

Export growth first depends on the ability of firms to produce goods of sufficient quality and quantity to be supplied to potential markets. This requires an environment that supports and encourages firms to rapidly invest and increase output through productivity gains. Policy makers and multinational organizations have increasingly focused on a sound investment on business environment as a strategy for economic development (Stern, 2002; Batsos & Nasir, 2004). The environment in which organizations operate is constantly changing with different factors influencing the organizations. For them to deliver efficiently, they must learn to appreciate the present challenges and cope with the increasingly competitive environment which calls for firms to rethink strategically (Pearce & Robinson, 2005).

a) Regional and International Trade Integration

In an increasingly globalized world, it is becoming more important to have a clear strategy of how to benefit from the globalization and the benefits of global economic integration have become increasingly evident over the last decades (Depken & Sonora, 2005). The growth of regional cooperation has been recognized as one of the major developments in recent international relations (Haokip, 2012).

Increased movement of goods, services, people and capital across international borders has helped many developing countries achieve fast and sustained economic growth. Globalization of the world economy, especially in the area of trade, has made the world
more interconnected and integrated (Ahn, 2011). Trade agreements are either bilateral, involving only two countries, or multilateral, involving more than two countries. It is therefore important that African companies adapt to the new way international companies are organized, and thus benefit the most from international trade (Bourename, 2002).

In Rwanda’s efforts to enhance its export growth, there is a realization for the need to trade with other countries in the region and all over the world, and regional and international economic integration is one of the six pillars of Rwanda’s Vision 2020. It is through this realization that Rwanda has concluded a number of related agreements in regard to regional and global economic integration. Rwanda is a member of the World Trade Organization (WTO) and belongs to a number of regional economic communities (Herbst, 2007).

In addition, Rwanda has bilateral trade agreements with various countries and related agreements meant to enhance Rwanda’s trade capabilities for sustainable development. First and foremost, it is very important to note that such agreements aim at liberalizing trade between two countries and ensuring that business transactions between those two countries are smooth. The bilateral agreements that Rwanda has concluded include those on investment promotion, avoidance of double taxation, trade and business facilitation, among others (Gray & Jonathan, 2012). Besides, Rwanda has concluded bilateral framework trade agreements to facilitate movement of goods and persons.

The pacts to facilitate cross border trade are directly benefiting the citizens of the signing countries. The purpose of such agreements is to allow faster and more businesses between the two countries, which should benefit both. It strengthens trade and economic cooperation with potential economic partners, exploring and securing foreign markets for Rwanda’s products and promoting exports from Rwanda. Currently, Rwanda is in the process of negotiating more bilateral agreements with its potential trade and economic partners.
The negotiations process is handled by the relevant government institutions/ministries, which are the Ministry of Trade and Industry, the Ministry of Finance and Economic Planning and the Ministry of Cooperation and Foreign Affairs. Rwanda is also a beneficiary under the European Union’s Everything But Arms ’EBA’ initiative as well as many other Generalized Systems of Preferences (GSP) schemes with key countries, including Canada, China, India and Japan and many others (Solingen, 2008). Full utilization of the benefits therein is yet to be effectively achieved, thus, deepening and strengthening regional and international trade cooperation and its implementation could be a significant channel for encouraging the growth of coffee export processing firms in Rwanda. The regulatory environment for doing business in Rwanda is another indicator of broad-based export competitiveness and business environment.

b) Access to Finance

Export financing is the provision of any form of financing that enables an export activity to take place and which may be made directly to the supplier, to facilitate procurement of items for immediate sale and/or for storage for future activities, or it could be provided to the buyer, to enable him/her meet contract obligations (Aterido et al., 2013). Access to finance has been identified as a dominant constraint facing exporters, especially for small and medium size enterprises. Commercial banks are the largest financing source for external businesses (Berger & Udell, 2006), including working capital loans. However, available evidence indicate that commercial banks in developing economies would rather invest their funds in less risky ventures than to place such funds in the development of the export sector (Arvis & Shakya, 2009). The rigid requirements of the commercial banks for serving the loans impedes access to export finance as well as the high cost of debt. Financial constraints are cited as an important obstacle to firms’ investment in general and in particular to their desire to venture into export business. These include expenses of upgrading product quality, changing packaging, and establishing marketing channels, among other expenses.
It is well established that many firms, especially small firms have significant exporting potential, however, relatively few of them have undertaken export because of financial constraints. This phenomenon could be attributed to firms’ difficulty in accessing the needed funds for export. Greenaway et al., (2005) highlight that an important determinant of firms’ investment and participation in the export market is finance. They therefore highlighted that firms that have better access to financial resources are capable of meeting expenses and costs associated with the export business and are more likely to increase their involvement on the international market.

c) Infrastructure Development

Inadequate infrastructure and poor transport network make it difficult for manufacturing companies to participate in global and just in time production because they cannot guarantee timely delivery of goods or ensure reliability or flexibility in the supply of goods. Some of the delays are due to poor infrastructure in both transit countries and in national economies since they have to sell at world prices, set without taking into consideration the transport costs (Limão & Venables, 2001).

Developing countries are highly responsive to the quality of transport and trade-related infrastructure issues whereby an improvement of 10% in the transport and trade-related infrastructure quality index has the potential of increasing countries’ agricultural exports by 30% (Baier & Bergstrand, 2007). Therefore, in order for countries to be competitive in the arena of global trade, the availability of enough infrastructures with the required quality is very crucial. Regional economic bodies such as SADC and COMESA, can also play an important role in facilitating improvement in cross border transport networks.

Infrastructure development is a key element of countries’ ability to produce and move goods from one area to another or from one country to another. Weak infrastructure is therefore a major impediment to exports, competitiveness and sustainable development in most African countries, particularly land-locked countries like Rwanda. Infrastructure
development can also play a significant role in minimizing the cost of exports. Efficient infrastructure and associated services are critical to the competitiveness of Rwandan exports on the world market. Transport costs are an important barrier to trade and have an important effect on exports (Calderón & Servén, 2008). Problems of access to quality transport services thus manifest themselves in the form of reduced profit margins and reduced competitiveness. At the macroeconomic level, they result in failure to develop a country's international trade potential (Duval, 2006).

Trade performance and competitiveness are affected by both international transport costs (costs of moving goods between countries) and internal transport costs (costs of moving goods within a country). High transport costs for moving goods from points of production to final destinations is therefore an important barrier. Although African countries have been struggling to mobilize resources to facilitate construction and upgrading of roads, bridges, ports, airports, railways and other related facilities, there is still a long way to go as most African countries have hardly been able to put in place the transport infrastructure that would meet their development needs (Anderson & Wincoop, 2004).

Electricity supply is another infrastructure problem driving up exporters’ costs. Despite more efforts that Rwanda is currently putting in place, power energy is another infrastructure challenge; insufficient power energy for productive use, high costs and unreliable energy services constrain economic activity and significantly hinder business operation and growth. Frequent power outages stop production and drive up operational costs. Rwanda therefore needs to expand access to reliable energy services if it is to increase its coffee productivity, enhance competitiveness and hence promote coffee export growth. Rwanda should make renewed efforts to bring about a major expansion of its already well identified energy potential. This can take place through the implementation of different projects to enhance infrastructure development (Olugbeng et al., 2013).
Hermelo and Vassolo (2007) study indicated that investment in new technology and diversification by geographic markets were the factors explaining the firm's growth on the small and medium sized firms of Tucumán, Argentina. New technologies improve efficiency, enable greater production, and are a source of profit for firms. They reduce costs and broaden market share. Firms that adopt greater levels of technological sophistication can be expected to grow more rapidly than a similar firm that doesn't. In fact, firms with high levels of technological advancement tend to report high levels of firms’ performance (Colombelli et al., 2014).

Information and Communication Technology (ICT) can facilitate the growth of coffee export by enabling governments and other stakeholders to simplify, harmonize and standardize trade management processes in order to address inefficiencies and lack of coordination which lead to delays, costs and unreliability. This will help to reduce trade costs and expedite trade flows while ensuring the effective management of statutory processes (Zhou & Wu, 2010). Their ability to do this is rooted in three capacities of ICT to: (i) enhance efficiency (enabling people and organizations to manage processes more quickly, reliably and cheaply than they could previously manage them); (ii) enhance coordination (enabling them to integrate processes with those of other people and organizations in ways that were not previously possible); and (iii) enhance information and knowledge (enabling them to access more information and other resources than previously, thereby improving decision-making). Information Technology and Communication can therefore contribute to addressing infrastructure challenges.

Koellinger (2005) advanced an argument that the key to understanding the impacts of ICT on performance is to view ICT as an enabler of innovation. This conceptualization of new technologies as possible enablers of innovation allows a market-based approach to study the relationship between ICT and performance. It also allows investigating why different firms that invest in the same technology may exhibit different payoffs. In addition, this concept allows us to argue that ICT remains of strategic relevance for firms as long as it enables innovation.
Devaraj and Kohli (2000) support the argument as evidenced by previous empirical studies that technology is positively associated with firm-level growth and this has a positive effects on revenue growth. Koellinger (2005) found a positive relationship between ICT and growth. The study findings are also supported by Adei (2004) who argues that information and communications technology has played a tremendous role in all areas of today’s organizations’ success and is expected to drive organizations to greater and efficient performance. It provides the opportunity for organizations to be in any location on the globe, even in the remotest of locality and establish transactions within a short time.

According to Czenter (2002) organizations are expected to take advantage of the ICT revolution to establish a virtual presence in the international economy as an e-business on the internet. Onwuka and Eguavoen (2007) expressed that, advances in computer technology enable traders to meet demand for financial instruments such as swaps and futures with relative ease and that through ICT organizations increase their performance by their virtual expansion through the internet thus, expanding their market reach and domination. Further, according to Onwuka and Eguavoen (2007), it will be difficult for a corporation to become a significant player in the global market place without an extensive use of information and communications technology. Technological innovation includes the development of new business methods to achieve desired objectives. ICT will lead to high organizational performance which is characterized by high financial income, continuous sustainable innovations, satisfied customers and a motivated human resource (Epstein, 2004).

Sabri et al., 2004) established a positive relationship between ICT and the performance of firms. ICT positively influences employee performance because it is the human capital that spearheads innovations. All types of ICT will be totally dependent on the human resource of the organization who will design, run and review the programs (Zaheer et al., 2011). Wong et al., (2007) confirmed a positive relationship between innovation and organizational performance and therefore when an organization achieves
competence in making a certain product, it can add value to the product by investing in the latest and modern technology.

Rwanda is far away from the Port of Mombasa and from Dar-Es-Salaam and faces significant costs in getting its goods to international markets. The high transport costs of imports from African countries inflate the prices of capital goods and intermediate inputs, thereby increasing the cost of industrial production. Consequently, any additional effort to integrate African countries into the global trading system by improving the competitiveness of their exports should consider and analyze the effect of transport costs (Rwanda Trade Policy, 2010).

**2.4.4. Strategic Human Capital**

Human capital can be conceptualized as skills, knowledge, and experience, which are vested in people in an economy. The notion of human capital was pioneered by Schultz in 1961 who, while talking about “moral issue of education as an investment in man” suggested that its outcome and consequences ought to be treated as a form of capital. In addition to serving as the driving force in production, human capital is required for generating and maintaining technical progress and for technology absorption in the form of knowledge externalities (Lall, 2001). Shury et al., (2008) argued that people should be seen as the only true agents in business; all tangible physical products, assets as well as intangible relations, are results of human action and depend ultimately on people for their continued existence.

Marr (2008) postulated that intellectual capital is the key factor for the company success and important levers for value creation. Hsu and Fang (2010) revealed that intellectual capital is becoming a crucial factor for a firm’s long-term profit and performance that identify their core competence as invisible assets rather than visible assets. Njihia et al., (2013) highlighted that strategic human capital is one of the organization drivers which helps the organization in monitoring performance, identifying the areas that need attention, by enhancing motivation, improving communication and strengthening accountability.
Halpen (2008) also concluded that strategic human capital can increase organization performance and pointed out that human capital is an accumulation of the expertise and abilities of an employee gained from experience, training and education during his working periods to create qualified human resources with added value known as human capital which is a part of intellectual capital. Baptiste (2001) in his study acknowledged that human resource is one of the important assets in a company which can be strategically developed and improved through education and training. According to Bontis and Fitz-enz (2002), human capital is a combination of knowledge, talent and experience of an employee and comprises of five (5) key components, that is individual capability, individual motivation, leadership, organizational climates and workgroup effectiveness. Each component has its own role in creating company’s human capital which eventually determines company value.

There are so many benefits associated with training. Cole (2002) summarizes these benefits as follows: (i) High morale: Employees who receive training have increased confidence and motivation; (ii) Low cost of production: training eliminates risks because trained personnel are able to make better and economic use of materials and equipments thereby reducing and avoiding waste; (iii) Low turnover: training brings a sense of security at the workplace which in turn reduces labor turnover; (iv) Change management: training helps to manage change by increasing the understanding and involvement of employees in the change process and also provides the skills and abilities needed to adjust to new situations; (v) Provide recognition, enhanced responsibility and the possibility of increased pay and promotion; (vi) Help to improve the availability and quality of staff.

Experience of managers is part of the human capital and comprises technological, commercial, organizational and managerial skills and knowledge that managers accumulate during their careers (Barkema & Shvyrkov, 2007). Such capabilities may serve as an important input factor of a firm. As intellectual assets are not easily imitable by rivals, they presumably result in a competitive advantage of firms possessing them. Knowledge about how to profitably innovate typically requires a good understanding of
relevant technologies and evolving markets. Knowledge about past industry conditions enhances managers' capability to understand current and predict future industry dynamics (Kor & Sundaramurthy, 2009). Furthermore, the literature on start-ups also suggests that firm-specific experience is particularly valuable to improve the firm performance (Klepper, 2001, Agarwal et al., 2004, Dahl & Reichstein, 2007, Filatotchev et al., 2009). Likewise, firms that have skilled and experienced people grow faster (Kor & Sundaramurty, 2009).

2.4.5. Growth of Coffee Export Processing Firms

The growth of firms is something inherent to their actual existence. Growth is regarded as the second most important goal of a firm, the most important being firm survival (Clark et al., 2001). Throughout their life, firms must grow continuously if they want to sustain their competitive position with an environment where other firms may be growing at a faster pace (Kavale et al., 2016). Bigsten et al., (2004) stated that export growth is critical for any country for a variety of reasons: At the macro level: i) exports help generate foreign earnings; ii) export receipts are vital to finance imports; iii) the negligible purchasing power of many developing countries calls for the need to explore larger market scales; iv) exports contribute to employment and growth of national product.

At micro level, it is now well established that: i) exporting firms are more efficient than their counterparts selling primarily on domestic markets; ii) exporting firms serve as conduit for technology transfer, and in generating technological spillovers with positive backward and forward linkages to domestic economy; iii) manufactured exports are particularly highly employment intensive, especially when inputs (capital, raw materials and labor) are sourced locally; iv) exporting firms are more productive than domestically oriented firms and help achieve higher growth.

There are benefits, beyond expanding markets, associated with exporting. Few countries have managed to develop rapidly on the basis of exports of primary products alone. A more diverse structure of exports reduces vulnerability to demand shocks and price
swings in overseas markets. A diverse base also creates greater opportunities in regional and global markets. Production volumes will be increased predominantly by improving yield amongst existing coffee farms.

At the company level, exporting firms in both developed and developing countries tend to be more productive than non-exporting firms, with much of the research suggesting causality running from exporting to efficiency, particularly in the African context. There are a number of possible explanations for this: first, the gains from exporting are large because of the wide knowledge and experience gaps between domestic firms and those on international markets. In this context, exporting offers scope for increased discipline of competition, and contact with foreign buyers provides scope for learning. Bigsten et al., (2016) find that the productivity gains for firms from exposure to exporting, in terms of value-added are 20-25% in the short run and up to 50% in the long run. Increasing the number of firms exposed to exporting can therefore benefit the host country in terms of a more competitive private sector as well as increased export revenue.

Melitz (2003) stated that countries which are growing at a rapid rate, by definition, produce more goods and services and thus export more. Researchers such as Reppas & Christopoulos (2005) contend that output growth causes higher exports. Kim and Lin (2009) examine the relationship between exports and economic growth by focusing on the technological level of exports. His empirical results imply that the technological level of exports, rather than openness or mere trade volume, matters for long-run firms’ performance.

Love and Chandra (2005) seek to bridge an important gap in the trade-growth literature and use Johansen’s multivariate co-integration framework taking the terms of trade as an additional variable for Bangladesh. Their findings suggest that the direction of both long and short-term causality is from income to exports. A direct test of Love and Mansury (2009) on the relationship between export trade and total factor productivity was also carried out, confirming a positive relationship between them. Astorga (2010) analyzes
the six largest Latin American economies within a two-equation framework and finds that physical and human capitals are key determinants of export growth.

2.5. Empirical Literature Review

Odhuon et al., (2010) asserted that the only worthy growth measure is access to finance. This measure is an indicator of organizational success and sustainability because it is the reason for the existence of firms. The financial success of an organization is a measure of a firm’s growth because it depicts the ability of an organization to operate above all its costs. However, Ittner and Larcker (2003) claimed that firm’s growth should not be measured by financial performance but also operational and market indicators. Firm's growth should also be measured using sales growth and profits (Banker et al., 2005).

Gichunge (2007) examined the effect of strategic management on organizational performance of medium sized manufacturing enterprises in Kenya. It examined the extent to which strategic management is adopted by medium sized manufacturing enterprises in Kenya and investigated the effect of various administrative and legal factors on the extent to which strategic management are adopted. It also determined the relationship between the level of competition and adoption of strategic management.

Ongori et al., (2013) investigated why hotels and restaurants in Kisii County were drastically declining in performance and even closing down at alarming rate and management practices that could enhance sustainable performance. The study reviewed strategic plans, employee skills and knowledge and customer satisfaction as key determinants to firm's sustainable competitive advantage. It also revealed existence of gaps in strategic management of organizations. The study concludes that the future direction of organizations was determined by management practices and how people working in that organization interact and collaborate with each other, with customers and other stakeholders. The study signified the importance of training on the performance of organizations.
Bloom et al., (2011) contend that firms adapting strategic management were more profitable, more productive, grow faster and survived longer. Fwaya et al., (2012) studied the relationship between strategic management drivers and firm performance in the Kenyan hotel industry and established that strategic management drivers are results of firm performance and generally have a strong positive relationship between themselves and also with hotel performance.

Odhuon et al., 2010) studied key performance indicators in Kenya’s hospitality industry and established financial performance measures as the only drivers of hotel performance. The researchers however recommended studies on other drivers of hotel performance and also their application to other organizations outside the hotel industry. Muthoka (2014) studied the effects of strategic management drivers on organizational performance in the tourism sector in Kenya and recommended a study on non-financial drivers of hotel performance.

Most studies done considered financial measures alone as good predictors of firm growth and firm performance. However, some empirical studies have shown contradictory results. These include the study by Akan et al., (2006) which analyzed generic strategies and concluded that Porter’s model did not describe or fit empirical reality. These strategies were not the routes by which a hotel could create a superior profit. Similarly, Akan et al., (2006) criticized Porter’s theories arguing that they were based on imprecisely developed concepts, and generalizations from them were thus forced based on particular competitive situations.

2.6. Critique of the Existing Literature Relevant to the Study

The dreams of every firm is growth, prosperity, and sustainability (Xu, 2000). However, sustained long-run growth of export trade cannot be reached without better human capital investment through regular short-term or in-job training opportunities. For strategic management drivers to be sufficiently plausible to act as the main conceptual framework for firms’ growth, it is very essential to demonstrate more substantial long-
term vision and strategic intent amongst the business managers (De Jorge & Castillo, 2011).

A study by Uzel (2013) concluded that there was a need for the hotels in Kenyan Coast to employ strategic management drivers in their operations as this improves their level of performance. Although the study found out that strategic management drivers improves hotel performance, the study did not come up with any optimum point at which the hotels should employ them. The study also did not come up with a way of combining the various forms of strategic management drivers’ mix. Askarany and Yazdifar (2012) did a study on the diffusion of six proposed strategic management tools in both manufacturing and non-manufacturing organizations in New Zealand. This study was on the strategic management tools and not on the strategic management drivers.

One of the criticisms advanced on the resource based view is that it stands on analytic statements that are true by definition and not able to be tested (Kraaijenbrink et al., 2010). This study seeks to show that value creation can be tested through related product diversification strategy. It also seeks to agree with the assertion that value is determined endogenously through the business’ internal activities based on the resources available at its disposal.

Fahy (2000) has reasoned that studies concerning resource based view have concentrated on the attributes of resources to attain competitive advantage (Yoo & Choi, 2005, King et al., 2003, Priem, 2007). However, more efforts are needed to extend the resource based view from merely examining the resource attributes (Peteraf & Barney, 2003; Rodriguez & Rodriguez, 2005) to analyzing the extent of the relationship between these resources and other related variables towards achieving competitive advantage (Armstrong & Shimizu, 2007). By moving towards this direction, such a study will not only improve the rigour of the resource based view but also sustain the continued relevance of the resource based view in strategic management (Ainuddin et al., 2007; Foss & Knudsen, 2003.)
The dynamic capabilities perspective (Teece, 2007) has drawn increasing attention from management scholars, but it is not without criticism. Arend and Bromiley (2009) address some criticisms related to its lack of clarity or coherent theoretical foundation, oversimplified dynamics of strategic change, unresolved measurement issues and weak empirical support.

Manguru (2011) did a study on the influence of strategic management practices on performance of Naivas Limited and found that the organizations apply strategic management practices in their operations which has a lot of influence on market conditions, employee knowledge and diversification of production line. Their success rests upon effective strategic management practices. Despite focusing on strategic management practices, this study did not focus on the coffee export processing firms and also not on the strategic management drivers.

Arasa and K’Obonyo (2012) established a significant relationship between strategic planning and performance in the insurance sector firms in Kenya but did not indicate the strategic drivers which effect the firm's performance. Munir et al., (2011) conducted a study on the strategic responses adopted by the banking sector but failed to address how the strategic responses adopted impact on the performance of the organization.

Hermelo and Vassolo (2007), Bulitia et al. (2014) and Khalaji (2014) findings were that investment in technology was the most important factor determining competitive advantage of a company. This may not be so considering that technology must be appropriate for the region and environment in which the industry is operating and this technology has to be managed by employees. If employees are not competent, then the investment in the new technology may not determine the competitive advantage of the firm.

Iravo et al., (2013) studied the factors affecting performance of hotels and restaurants in Kenya and concluded that factors for successful and sustainable performance of hotels and restaurants rely on top management ability to strategically analyze both external and
internal environment. The study recommended the hiring of competent managers who could drive strategy into actionable results. Aswani (2010) examined the effect of marketing strategies on performance of insurance companies in Kenya. However, this study did not consider the statistics to establish whether these strategies lead to improved performance.

Wang and Bowie (2009) in their findings reported that the biggest threat to companies is that firms were seeking profits instead of developing their relationship with customers. They however failed to identify the key areas of customer relationship management dimensions. While some surveys show that growth is not an objective for all firms, the ability of firms to grow is important, as it has been suggested that firms with low or negative growth rates are more likely to fail (Headd & Kirchhoff, 2007)

Adamu et al., (2011) determined the influence of diversification on the performance of some Nigerian construction firms and this study revealed that undiversified firms outperform the highly diversified firms in terms of return on total assets and profit margin. It was therefore concluded that diversification does not necessarily lead to an improvement in profitability.

Oyedijo (2012) analyzed the effects of product and market diversification strategy on corporate financial performance and growth in Nigeria. The study concluded that the financial performance and sales growth of firms in Nigeria were significantly affected by the mode of diversification used and recommended that Nigerian firms that were seeking a sustainable fast growth and superior performance should pursue a related product-markets diversification strategy.

2.7. Research Gaps

Muthoka et al., (2017) did a study on strategic management drivers and performance of the Kenya owned tourism state corporations: The mediating role of strategy implementation. The findings of the study indicated that information technology drivers, strategic planning drivers, change management drivers and organizational leadership
drivers have a positive effect on performance in the tourism state corporations in Kenya. Uzel et al., (2014) examined the effect of strategic management drivers on organizational performance of the hotels in the Kenyan Coast. The study concluded that organizational structure, organizational culture, organizational communication, and organizational leadership in Kenya have an influence on hotel performance. Though the two studies were close to the current study, the independent and dependent variables were different from the variables of the current study. Besides, these studies were limited to tourism state corporations and hotels in Kenya, which is a different study area when compared with the current study area of coffee export processing firms in Rwanda.

Wanjau and Ogolla, (2013) conducted a study on factors affecting value addition in the leather industry. In this study, the research area was different from the one in the current study. Uzel (2012) studied the use of value-based management tools in hotels in Coast Province, Kenya and suggested further research on the strategic management drivers of performance in hotels. This study had different aims and objectives and focused on different target population. Fwaya et al., (2012) studied the relationship between drivers and results of performance in the Kenyan hotel industry and recommended a study on the non-financial drivers of hotel performance. This study was limited to the hotel industry in Kenya.

Namusonge et al., (2012) identified financial drivers as the only drivers of hotel performance and the current study seeks to bridge the knowledge gap by introducing the adoption of financial and non-financial strategic management drivers on the growth of coffee export processing firms in Rwanda in order for coffee export processing firms to position themselves to survive in the ever changing competitive environment.

et al., (2010) reported that increase in sales may be associated with increase in technology or equipments. However, this study did not put emphasis on human capital which is key to sales increase. Chandler et al., (2009) also stated that managers frequently may prefer to sub-hire rather than investing in human capital development. These findings differ from the assertion of the current study which emphasizes on the
importance of human capital development through investing in in-job trainings and formal education.

Mckelvie and Wiklund (2010) highlighted that growth may be a measure of performance, although not inevitably of success, since growth does not necessarily result in profit. The study stated that sales do not automatically imply profit increase due to possible variations in costs and that growth may be associated to profit if unit costs are reduced or a stronger position in the market is affirmed. In fact, the relationship between growth and profit is not conclusive. The current study therefore intends to fill the pertinent research gaps and add value to the existing literature by examining whether sales growth and profits could be the determinants of the growth of coffee export processing firms in Rwanda.

Several studies relevant to the current study have previously been conducted and focused on Rwanda such as the impact of economic liberalization in Rwanda coffee sector: A better Brew for Success (Bourdreaux, 2013), whether organizational forms of the coffee supply chain matters in poverty reduction in Rwanda (Murekezi et al., 2012), whether coffee reforms and coffee supply chain affect farmers’ income, with a case study of coffee growers in Rwanda (Murekezi and Loveridge, 2009), profitability analysis and strategic planning of coffee processing and marketing in Rwanda: A case study of coffee growers’ association-Maraba association in Rwanda (Murekezi, 2003), and Essays on the effects of coffee market reforms, supply chains, and income improvement in Rwanda (Murekezi, 2009). However, no study has been done to investigate the influence of strategic management drivers on the growth of coffee export processing firms in Rwanda and that is what necessitated the focus of this research area.

A study like this one cannot deal with all strategic management drivers which have an influence on the growth of coffee export processing firms. Hence, this study only responded to tackle gaps in the literature and to therefore fill the existing contextual and conceptual gaps by investigating the influence of the following strategic management drivers; strategic value addition, product and markets diversification, business
environment and strategic human capital, on the growth of coffee export processing firms in Rwanda.

2.8. Summary

This chapter has identified the resource based view theory, dynamic capabilities framework, human capital theory, agency theory, stakeholder theory, and growth theory as the theoretical framework of this study. Furthermore, the empirical review of strategic management drivers was identified. This chapter goes further and points out on critiques of the existing literature on strategic management drivers and firms’ growth. More so, this study identified and explained the research gaps which need to be addressed in the current study.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter describes the methodology that was used to conduct this study. Based on the theoretical review, the conceptual framework and empirical study highlighted in Chapter two, this chapter three covers the research design and research methodology used to test the study variables (Sekaran, 2010). In particular, issues related to research design, target population, sample size, sampling procedure, research instrument, data collection procedure, data analysis techniques, the methodology for testing the hypotheses and operationalizing research variables. Furthermore, reliability and validity procedures used for testing the research instrument are discussed.

3.2. Research Design

Research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data (Kothari, 2012). According to Creswell (2014), research designs are plans and procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis in order to achieve the objectives of the study. Similarly, Mugenda (2008) refers to research design as the process that the researcher will follow from the inception to the completion of the study.

Research design is the blueprint for conducting the study that maximizes control over factors that could interfere with the validity of the findings (Burns & Grove, 2011). Kothari (2004) describes research design to involve decisions regarding what, where, when, how much, by what means concerning an inquiry or a research study in order to generate answers to the research problem and test the hypotheses. Creswell and Clark (2011) state that a research design is a framework for conducting a research and provides a clear plan on how the research will be conducted and helps the researcher in sticking to the plan.
This study adopted a mixed research design which includes qualitative and quantitative research to establish the associations among the study variables, to verify results and enable greater accuracy in measurement. An inclusion of qualitative research component enriched the study by providing opportunities for probing managers on issues that needed more insights. The distinction between qualitative and quantitative research is framed in terms of using words (qualitative) rather than numbers (quantitative). In this research, qualitative data were collected by use of a questionnaire to get the opinions, perceptions and experiences of the managers in coffee export processing firms and staff from MINECOFIN, MINICOM and NAEB. Quantitative methods were used to analyze the data because it establishes associations among study variables and determines reliability and validity of data to test hypothesis of the study (Uzel, 2015).

The advantage of using both designs is that they complemented each other and there was a possibility of getting more valid results than when only quantitative data are collected (Creswell et al., 2011). The purpose of this form of research is that a combination of qualitative and quantitative approach provides a better understanding of a research problem than either research approach used alone. According to Sekaran and Bougie (2009), a researcher should use more than one design to enhance the study. The two research designs were therefore used to achieve the optimal results as recommended by Saunders et al., (2009).

In this research, descriptive cross-sectional and correlational designs used a purposive sampling technique for coffee export processing firms and a census for staff from MINECOFIN, MINICOM and NAEB, to obtain the empirical data to determine the linkages between variables. This is a method of collecting information by administering a questionnaire to a sample of individuals (Orodho, 2003). This method was used because it allows statistical inferences to broader population and permits them to generalize their findings to real-life situations, thereby increasing the external validity of the study (Nachmias & Nachmias, 2005). Yang (2008) stated that descriptive survey focuses on the research design and is concerned with addressing the particular
characteristics of a specific population of subjects, either at a fixed point in time or at varying times for comparative purposes.

Correlation research is basically concerned with assessing relationships among variables based on the premise that if a statistically significant relationship exists between two variables, then it is possible to predict one variable based on the information available on another variable (Mugenda, 2008). For qualitative data, the researcher relied on the views of respondents; asked broad, general questions; collected data consisting largely of views, opinions, perceptions and experiences from the respondents; and then described and analyzed those views. This was to ensure that any subsequent assessments of the attributes of that population were accurate and the findings were generalized; in other words, they had population validity (Johnson et al., 2008).

### 3.3. Target Population

Kothari (2012) indicates that a population is a group of events, people or items of interest with a common observable attributes. Newing (2011) describes a population as the set of sampling units or cases that the researcher is interested in. Mugenda and Mugenda (2003) assert that the target population is an entire group of individuals or objects having a common observable characteristic, and to which a researcher wants to generalize the results of the study. Mugenda (2005) highlights that the target population is a number of individuals about which a researcher is interested in describing or making a statistical inference. Sekaran et al., (2001) state that population includes all elements that meet certain criteria for inclusion in a study.

Sekaran and Bougie (2010) state that the word population refers to the entire group of people or things of interest that the researcher wishes to investigate. In this study, 78 coffee export processing firms registered in 2016 in Rwanda were obtained from NAEB, 13 staff from the Ministry of Finance and Economic Planning (MINECOFIN), Ministry of Trade and Industry (MINICOM), and National Agricultural Export Development Board (NAEB) were obtained from the organizational structures of MINICOM, MINECOFIN and NAEB. Since the research is on the influence of strategic
management drivers on the growth of coffee export firms, the questionnaires were
distributed to Chief Executive Officers of 78 coffee export processing firms because
they occupy a strategic position, as well as 13 staff; 1 Chief Economist from
MINECOFIN, 2 senior staff from external trade at MINICOM, and 10 staff from NAEB
whose direct duties and responsibilities are related to coffee export and processing.
Table 3.1 represents the population of the study.

<table>
<thead>
<tr>
<th>Categories of Population</th>
<th>Target Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Staff from</td>
<td></td>
</tr>
<tr>
<td>MINECOFIN</td>
<td>1</td>
</tr>
<tr>
<td>MINICOM</td>
<td>2</td>
</tr>
<tr>
<td>NAEB</td>
<td>10</td>
</tr>
<tr>
<td>b) Coffee Processors and Exporters</td>
<td>78</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>91</strong></td>
</tr>
</tbody>
</table>

3.4. Sampling Frame

The sampling frame describes a list of all population units from which the sample was
selected (Cooper & Schindler, 2013). It is a physical representation of the target
population and comprises all the units that are potential members of a sample (Kothari,
2013). According to Mugenda (2008), the list may be obtained from a source or
generated by the researcher. The list of the population or sample frame is where the
sample is drawn.

The sampling frame should be reliable, comprehensive, correct and appropriate (Kothari,
2011). Sekaran and Bougie (2013) describe the sampling frame as a physical
representation of all the elements in the population from which the sample is drawn.
Thus, the sampling frame describes the list of all population units from which the sample
was selected (Cooper & Schindler, 2006). It is a physical representation of the target
population and comprises all the units that are potential members of a sample (Kothari, 2004). In this study, the number (78) and names of coffee exports and processing firms were obtained from NAEB. Staff (13) from the already mentioned two Ministries; MINECOFIN, MINICOM, and NAEB were obtained from their respective organizational structures and the only element which was considered was their position related to coffee export and processing activities. In each coffee export processing firm, the Chief Executive Officers were the respondents for this study because they were at a strategic level and knowledgeable about the activities of coffee export processing firms which can enhance a sustainable competitive advantage. This ensures that the sampling frame is accurate, current, complete and relevant, for the attainment of the study objectives.

3.5. Sample Size and Sampling Technique

This section describes the sample size and the sampling technique that were used in the study. A sample is a number of items selected from the universe and should neither be too large nor too small (Kothari, 2011). Leedy and Ormrod (2010) denote that particular entities selected comprise a sample. By the fact that the size of the population from coffee processors and exporters was small as well as the size of the selected staff from the two mentioned Ministries and NAEB, the sample size was the same as the target population; thus the respondents were 91 drawn from 78 coffee export processing firms and 13 staff from MINECOFIN, MINICOM, and NAEB.
Therefore, the sample size and the sampling technique are illustrated in table 3.2 as follows:

**Table 3.2. Sample size and sampling technique**

<table>
<thead>
<tr>
<th>Categories of respondents</th>
<th>Target Population</th>
<th>Sample Size</th>
<th>Sampling Techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Staff from MINECOFIN</td>
<td>1</td>
<td>1</td>
<td>Purposive Sampling</td>
</tr>
<tr>
<td>MINICOM</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>NAEB</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>b) Coffee Processors and Exporters</td>
<td>78</td>
<td>78</td>
<td>Census</td>
</tr>
</tbody>
</table>

Data gathering is crucial in research, as the data is meant to contribute to a better understanding of a theoretical framework. It then becomes imperative that selecting the manner of obtaining data and from whom the data will be acquired be done with sound judgment, especially since no amount of analysis can make up for improperly collected data (Bernard, 2002). The researcher decides what need to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience (Mohamed et al., 2010).

In this study, non-probability purposive sampling techniques were used to select staff from the two mentioned Ministries and NAEB. Purposive sampling techniques involve selecting certain units or cases based on a specific purpose rather than randomly (Tashakkori & Teddlie, 2009). This is also supported by Patton (2002) who presented typologies of purposive sampling techniques. This author stated that purposive sampling techniques have been referred to as non-probability sampling or purposeful sampling or qualitative sampling. Among the categories of purposive sampling techniques, this study
used the one called sampling special or unique cases which are employed when individual case itself, or a specific group of people is a major focus of the investigation.

For coffee processors and exporters, the sampling technique named census was used because those processors and exporters are not many; this sampling technique implies that the sample is likely to be more representative (Saunders et al., 2009). This is also supported by Sapsford and Victor (2006) who confirmed that when the target population is small, using a census is the only way to be sure that everyone’s opinions have been taken into consideration. A census eliminates sampling error and provides data on all individuals in the population.

3.6. Data Collection Instruments

Both primary and secondary data were collected for this study.

3.6.1. Primary Data

The instrument for primary data collection in this research was a questionnaire with a list of questions to be answered by the 91 sampled respondents. A questionnaire consists of a set of well-formulated questions to probe and obtain responses from respondents (Panneerselvam, 2010). Self-administered questionnaires are suitable for many respondents due to time efficiency, they are free of bias since they are respondent-only based, increase rate of response and help the researcher accumulate and summarize responses easily (Kimutai, 2014). The questionnaire contained closed ended questions primarily for quantitative analysis as well as few open ended questions which were analyzed qualitatively.

A five point Likert scale was used to measure interval data where one point score meant that the respondent disagreed (agreed at a very low extent) with the statement and a five point score meant that the respondent strongly agreed (agreed at a very great extent) with the statement (Kimutai, 2014). Therefore, 5=Very great extent; 4=Great extent; 3=Moderate extent; 2=Low extent and 1=Very low extent. Likert-type of scale is considered more reliable since the respondents answer all statements in it (Wanjau,
Likert-style rating scale was also chosen because it communicates interval properties to the respondents and therefore produce data that can be assumed to be related to an interval scale.

This is supported by Creswell (2012) who defines data collection instruments as a means by which information is obtained from the selected subjects of an investigation. Barladi and Enders (2011) also explain that questionnaires are an important data collection tool. In addition, the use of questionnaires is justified because they provide an effective and efficient way of gathering information needed for a given study. Furthermore, questionnaires facilitate easier coding and analysis of the data collected. Questionnaires have advantages of low cost, reduction in biased error, greater anonymity, considered answers and consultations and finally accessibility to a wide geographical contact at minimal cost (Nakai & Weiming (2011).

The research instrument was developed based on the constructs identified in the conceptual framework. The questionnaire was then organized into six sections in order to bring out the information required: Section 1 elicited Personal information; section 2 provided information on Strategic value addition; section 3 brought out information on Product and markets diversification; section 4 elicited information on Business environment; section 5 provided information on Strategic human capital; and finally, section 6 looked at Growth of coffee export processing firms.

3.6.2. Secondary Data

Secondary data involves the data collected using information from other published sources (Dawson, 2009). These are datasets that are already in existence, collected by other researchers but which are relevant to the research being conducted. These are the data that has been used elsewhere in other related studies. In this study, secondary data were obtained from the review of documents related to coffee exports, books, reports, annual reports and journal publications. It also included information collected from
Government policies, reports, and other forms of documented data whose source can be verified.

3.7. Data Collection Procedure

The data sources that were employed in this study consisted of both primary and secondary data. Primary data is the data which is collected for the first time and thus happen to be original in character (Kothari, 2004). Secondary data involves the data collected using information from other published sources (Dawson, 2009). The analysis of the secondary data was to shed more light on the influence of strategic management drivers on the growth of coffee export processing firms in Rwanda.

The instrument used by the researcher to collect data was a questionnaire which was a list of questions to be answered by the respondents. In order to increase the response rate, the researcher included an introductory letter addressed to the respondents detailing who was conducting the study, the purpose of the study, why it was important that the respondents answered the questionnaires and assuring the respondents that their responses would be held in strict confidence and used only for the intended purpose.

The questionnaires were hand delivered to the respective respondents by the researcher or with the help of the research assistant because the research was done countrywide. The research assistant was first briefed in regard to the structure of the questionnaire for the purpose of ensuring that he understood the subject matter for which he would make clarifications to the respondents if need be. For some respondents, the response was instant while for others, the questionnaires were dropped and picked after they were filled, at a time that was conveniently arranged between the researcher and the respondents. A follow up was made through phone calls or physical visits.

3.8. Pilot Study

Cooper and Schindler (2013) indicated that a pilot test is conducted to detect weaknesses in the design of the research instruments and to provide proxy data for the selection of a probability sample. Pilot testing provides an opportunity to detect and remedy a wide
range of potential problems within a research instrument. Conducting a pilot testing ensured that appropriate questions and the right statements were asked, the right data was collected, and that the data collection methods would work properly.

The term of pilot study, however, is defined as a small scale test of the methods and procedures to be used on a large scale (Porta, 2008). Kothari (2004) argues that before using questionnaires as a data collection tool, it is always advisable to conduct a pilot study of the questionnaires. This helps to bring into the light the weaknesses (if any) of the questionnaires and the experience gained in this way can be used to effect improvement. This was also confirmed by Orodho (2004) who stated that a pilot study is a smaller part of a large study that is conducted in order to prepare for the study and also provides a basis for the design.

All aspects of the questionnaire were pre-tested including the question and statement content, wording, sequence, form and layout, question and statement difficulty and instructions. Cooper and Schindler (2011) indicate that a pilot test is conducted to detect weaknesses in the design of a questionnaire. A pilot study also allows the researcher necessary revisions prior to the distribution of the questionnaire to the sample population (Neuman, 2007).

Dikko (2016) argues that a pilot study is a mini version of the main research, and according to Simon (2011) the purpose of piloting is to resolve reliability and validity of the instruments and to check for ambiguities that would prevent respondents' comprehension. Simon (2011) reiterates the importance of pilot study as giving advance warning regarding weaknesses in the research instrument.

The researcher carried out the pilot testing of the questionnaire for validity and reliability on a small and similar group to the one that will be used to collect data on the entire sample population. This was done in order to correct any errors which may have been made. The rule of thumb is that 10% of the sample should constitute the pilot test (Cooper & Schindler, 2014, Creswell, 2003). Therefore, a sample size of nine (9)
respondents was used in the pilot study which is almost 10% of the sample size of 91 respondents for the actual study. The proposed pilot study of seven (7) coffee processors and exporters, one (1) staff from MINICOM and one (1) staff from NAEB, was within the recommendation by Creswell (2003). The pilot study was conducted in order to detect if there were flaws, limitations, or other weaknesses within the questionnaire before distributing it to the entire sample population. Thereafter, the original questionnaire was adjusted to ensure that questions clearly communicated to the respondents to render the expected response.

3.8.1. Validity of Research Instruments

Validity is the extent to which an instrument measures what it is supposed to measure (Lakshmi & Mohideen, 2013). According to Drost (2011), validity is concerned with the meaningfulness of research components. Construct validity and content validity were relevant in this study. Construct validity is a measure of the degree to which data obtained from an instrument meaningfully and accurately reflects or represent a theoretical concept (Mugenda & Mugenda, 2003). Construct validity assesses whether a questionnaire has been designed in a manner that will elicit the required information from the respondents. This process allows weaknesses in the questionnaire to be detected so that they can be removed before the final questionnaire is prepared.

Measurement was done through content and criterion validity (Oso & Onen, 2005). A variable is considered to have content validity if there is general agreement from the literature that the independent variables have measurement items that cover all aspects of the variable being measured. Criterion validity is also known as predictive validity or external validity. It is concerned with the extent to which a particular variable predicts or relates to other variables. In this study, the criterion related validity of the conceptual framework was determined by examining the Bivariate Pearson Correlation Coefficients computed for all the independent variables and the dependent variable.
Testing the validity of the research instrument was an important activity because ambiguous and vague questions were revealed as respondents interpreted them differently; the corrections and feedback obtained from the pilot study were used to revise the questionnaire in order to confirm its validity. Thus, a pilot study was undertaken to nine (9) respondents, to test the validity of the questionnaire. This comprised seven (7) coffee processors and exporters, one (1) staff from MINICOM and one (1) staff from NAEB.

### 3.8.2. Reliability of Research Instruments

A measuring instrument is reliable if it provides consistent results (Kothari, 2011). Reliability refers to the consistency of the measure of concept (Bryman, 2012). The reliability of a measure concerns its ability to produce similar results when repeated measurements are made under identical conditions. The more variability that you observe, the less reliable in the measure (Bordens & Abbott, 2014). The reliability of a scale indicates how free it is from random error. Patton (2002) also defines reliability as the best available approximation to the truth of a given inference. The two commonly used indicators of a scale's reliability are test-retest reliability and internal consistency. The test-retest reliability of a scale is assessed by administering it to the same people on two different occasions, and calculating the correlation between the two scores obtained. High test-retest correlations indicate a more reliable scale.

Internal consistency is the degree to which the items that make up the scale are all measuring the same underlying attribute (Creswell, 2014). Internal consistency was measured using the statistic Cronbach's coefficient Alpha. This statistic provides an indication of the average correlation among all of the items that make up the scale. Costello and Osborne (2005) stated that Cronbach’s Alpha can be written as a function of the number of test items and the average inter-correlation among the items.
The formula for the standardized Cronbach’s Alpha is as follows:

\[ \alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N - 1) \cdot \bar{c}} \]

N is equal to the number of items, c-bar is the average inter-item covariance among the items and v-bar equals the average variance. If you increase the number of items, you increase Cronbach’s Alpha. Additionally, if the average inter-item correlation is low, alpha will be low. As the average inter-item correlation increases, Cronbach’s Alpha increases as well (holding the number of items constant).

Cronbach's Alpha reduces the time required to compute a reliability coefficient using other methods (Mugenda & Mugenda, 2003). Sekaran and Bougie (2010) as well highlighted that Cronbach's Alpha coefficient ranges between 0 and 1 with higher alpha coefficient values of 0.7 and above being more reliable, reaching 1 when there is no variable error at all in the measurement. It was therefore realized that the questionnaire to be used in this study had a good internal consistency because it had overall Cronbach's Alpha coefficient of 0.759, which was a good indication that the questionnaire was reliable.

3.9. Data Analysis and Presentation

Qualitative as well as quantitative methods of data analysis were used to analyze the research variables. In qualitative studies, the researcher was interested in analyzing information in a systematic way in order to come up with useful conclusions and recommendations. The researcher obtained detailed information about the phenomena being studied, and then tried to establish patterns, trends and relationships from the information gathered. Data collected was analyzed using descriptive statistics, mainly percentages.

In quantitative studies, the descriptive statistical tools helped in describing the data and determining the respondents' degree of agreement with the various statements under
each variable. Quantitative analysis went further to test the selected strategic management theories in the theoretical framework of the study and prove or disapprove it. For this kind of study, there was need to go further and test hypotheses.

Sekaran and Bougie (2010) define data analysis as a mechanism for reducing and organizing data to produce findings that require interpretation by the researcher. Elamin (2008) states that data analysis is a creative process characterized by an intimate relationship of the researcher with the respondents and data generated. Kothari (2004) emphasize that analysis of data in a general way involves a number of closely related operations which are performed with the purpose of summarizing the collected data and organizing them in such a way that they answer the research questions of “what”.

Cooper and Schindler (2011) define data analysis as cleaning, transforming and modeling data in order to highlight useful information to draw conclusions and to support decision making. After completing the questionnaires, the collected data was edited for accuracy, uniformity, consistency and completeness, organized, summarized, coded and tabulated before final analysis. The statistical package for social science, SPSS was used for data analysis. The variables names within the database file referred to the numbers of each research question in the questionnaire. The data was divided into several sub-topics in accordance with the structure of the questionnaire. Descriptive statistics and inferential statistics were used to analyze the data.

3.9.1. Descriptive Statistics

Descriptive statistics was used to summarize both the primary and the secondary data to enable meaningful description and interpretation. It was used to describe the characteristics of collected data. This is supported by Mugenda and Mugenda (2003), who state that descriptive analysis involves a process of transforming a mass of raw data into tables with percents, mean, standard deviation, charts, cumulative percents, and frequency distribution which are a vital part of making sense of the data.
The descriptive analysis of the data was presented by use of percentage and by using mean whereby a mean score between 1.5 and 2.4 indicated disagreement in responses (very low extent), a mean score between 2.5 and 3.4 indicated neutral responses, a mean score between 3.5 and 4.4 represented agreed responses at great extent while a mean score above 4.4 represented agreed responses at a very great extent. The descriptive analysis of the data was also presented using standard deviation where a standard deviation below 0.7 represented most convergence of the respondents to the mean, a standard deviation between 0.7 and below 0.9 represented more convergence, a standard deviation between 0.9 and below 1.1 represented moderate convergence and a standard deviation of 1.3 and above represented less convergence. Standard Deviation (SD) provides an indication of how far the individual responses to a given statement vary or deviate from the mean.

Qualitative data was analyzed using percentages to address the qualitative information obtained from coffee export processing firms and staff from MINECOFIN, MINICOM and NAEB through a questionnaire. As one of today’s most extensively employed analytical tools, content analysis has been used fruitfully in a wide variety of research applications (Neuendorf, 2016).

### 3.9.2. Inferential Statistics

Inferential statistics was used in the study to enable the researcher to reach conclusions about the relationship between the variables. Data were measured using inferential statistics which are Karl Pearson’s coefficient of correlation, the Analysis of Variance (ANOVA) and linear and multiple regression analysis. Correlation analysis was carried out to gauge if there was any relationship between each independent variable (strategic value addition, product and markets diversification, business environment and strategic human capital) and the growth of coffee export processing firms; it assesses the direction and strength of the relationship between independent variables and the dependent variable.
A linear regression analysis was used to measure the relationship between each independent variable and the dependent variable, and the multiple regression analysis was conducted to establish the relationship between all independent variables and the dependent variable. For these tests, ANOVA and F-test were determined. Analyses were done involving each independent variable separately to test individual influence on the dependent variable. An analysis to determine the combined influence of all independent variables on the dependent variable was also done. The p-value for the F-statistic was applied in determining the robustness of the model.

The conclusion was based on the basis of p-value whereby if the p-value is less than 0.05 or F-statistic greater than the p-value then it was concluded that the model is significant and has good predictors of the dependent variable. If the p-value is greater than 0.05 then the model was not significant and cannot be used to explain the variations in the dependent variable. The hypotheses were tested at 95% confidence level whereby significant differences were recorded at an alpha level of 0.05 (p<0.05) (Churchill and Iacobucci, 2002). Dancey and Reidy's (2008) Pearson correlation coefficient categorization was used to assess the strength of the relationship between the variables as shown in table 3.3. below:

<table>
<thead>
<tr>
<th>Value of the Correlation Coefficient</th>
<th>Strength of Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Perfect</td>
</tr>
<tr>
<td>0.7-0.9</td>
<td>Strong</td>
</tr>
<tr>
<td>0.4-0.6</td>
<td>Moderate</td>
</tr>
<tr>
<td>0.1-0.3</td>
<td>Weak</td>
</tr>
<tr>
<td>0</td>
<td>Zero</td>
</tr>
</tbody>
</table>

Source: Dancey & Reidy (2008)

The multiple regression model was adopted for the study to test the relationships between variables; to establish the relationships between the independent variables
which are Strategic value addition (SVA), Product and Markets diversification (PMD), Business environment (BE) and Strategic Human capital (SHC), and the growth of coffee export processing firms (GCEPF) which is the dependent variable, therefore the model was as follows:

\[
GCEPF = \beta_0 + \beta_1 SVA + \beta_2 PMD + \beta_3 BE + \beta_4 SHC + \varepsilon
\]

Where:

- \(GCEPF\) = growth of coffee export processing firms (dependent variable);
- \(\beta_0\) = the value of dependent variable when all independent variables are zero. This is also called the “intercept of the model” or constant.
- \(\beta_1 - \beta_4\) = Regression coefficient for each independent variable.
- \(\beta_1 \text{SVA}\) = Change in the growth of coffee export processing firms resulting from influence in strategic value addition (independent variable).
- \(\beta_2 \text{PMD}\) = Change in the growth of coffee export processing firms resulting from influence in product and markets diversification (independent variable).
- \(\beta_3 \text{BE}\) = Change in the growth of coffee export processing firms resulting from influence in business environment (independent variable).
- \(\beta_4 \text{SHC}\) = Change in the growth of coffee export processing firms resulting from influence in strategic human capital (independent variable).
- \(\varepsilon\) = Random or Stochastic Term.

The regression model is most appropriate for the study as there are several independent study variables which are known and predict the dependent variable. This multiple regression model is more appropriate as it is also used to understand which among the independent variables are related to the dependent variable, and the model explores the forms of these relationships. Analysis of data using regression model has been used previously by Aduda (2011) in a study which investigated the relationship between executive compensation and firm performance in the Kenyan banking sector.

Ngugi (2001) used a regression analysis in a study on the empirical analysis of interest rates spread in Kenya while Khawaja and Mulesh (2007) used a regression analysis to

3.9.3. Hypothesis Testing

A hypothesis is a statement or assumption concerning a population. The procedure which, on the basis of sample results, enables us to decide whether a hypothesis is to be accepted or rejected is called Hypothesis testing or Test of Significance (Pivetti & Melotti, 2013)). A hypothesis has to be verified then accepted or rejected for decision making. In hypothesis testing the researcher makes some inference about population parameters like the mean, the proportion etc. However, if the population is not normal or normality assumption is not proper, then parametric tests cannot be done (Mugenda and Mugenda, 2002).

Hypotheses were tested using Analysis of variance (ANOVA). The ANOVA technique was also used to test the linearity of the regression line fitted to the data and hence its preference. The parameters given in the ANOVA table are the sum of squares, mean square, degree of freedom, F-statistic and significance level. The F statistic and significance level were used to test and decide whether to reject or fail to reject the hypothesis.

There are two types of statistical hypotheses; Null hypothesis, denoted by Ho and Alternative hypothesis denoted by H₀ or H₁. The stated alternative hypotheses as highlighted in table 3.4 were tested at 95% confidence level (α = 0.05), whereby; when P-value ≥ 0.05 the observed difference is not significant and when P-value ≤ 0.05 the observed difference is significant. Based on the above assertion, the study either rejects
the null hypothesis and supports the alternative hypothesis, or fails to reject null hypothesis, and thus the null hypothesis is accepted. A set of four hypotheses were developed to guide the study and those hypotheses were tested at 95 percent confidence level ($\alpha = 0.05$) as shown in table 3.4:

**Table 3.4. Hypothesis Tests**

<table>
<thead>
<tr>
<th>Hypothesis statement</th>
<th>Hypothesis test using</th>
<th>Model and anticipated results</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_a1$: There is a significant influence of strategic value addition on the growth of coffee export processing firms in Rwanda.</td>
<td>- Karl Pearson's Correlation coefficient to test the partial correlation between the variables - F-test (ANOVA) to test the overall robust of simple regression</td>
<td>$GCEPF = \beta_0 + \beta_1SVA + \varepsilon$</td>
</tr>
<tr>
<td>$H_a2$: There is a significant influence of product and markets diversification on the growth of coffee export processing firms in Rwanda.</td>
<td>- Karl Pearson's Correlation coefficient to test the partial correlation between the variables - F-test (ANOVA) to test the overall robust of simple regression</td>
<td>$GCEPF = \beta_0 + \beta_2PMD + \varepsilon$</td>
</tr>
<tr>
<td>$H_a3$: There is a significant influence of business environment on the growth of coffee export processing firms in Rwanda.</td>
<td>- Karl Pearson's Correlation coefficient to test the partial correlation between the variables - F-test (ANOVA) to test the overall robust of simple regression</td>
<td>$GCEPF = \beta_0 + \beta_3BE + \varepsilon$</td>
</tr>
<tr>
<td>$H_a4$: There is a significant influence of strategic human capital on the growth of coffee export processing firms in Rwanda.</td>
<td>- Karl Pearson's Correlation coefficient to test the partial correlation between the variables - F-test (ANOVA) to test the overall robust of simple regression</td>
<td>$GCEPF = \beta_0 + \beta_4SHC + \varepsilon$</td>
</tr>
</tbody>
</table>
3.10. Diagnostics Tests

Before the regression analysis is done, the researcher conducted diagnostic tests as recommended by Malhotra and Dash (2011) and Njuguna (2013) to assess for the model's underlying statistical assumptions. The normality of data distribution was assessed by examining its skewness and kurtosis statistic (Kline, 2005). The Kolmogorov-Smirnov test was also used to test the normality of the dependent variable. Since the study used multiple regression equation, a multi-collinearity among the study variables was tested by computing the Variance Inflation Factors (VIF) and the Tolerance (Green, 2000). Results obtained have been interpreted and discussed in chapter four.

3.11. Definition and Measurements of Variables

Various indicators were used to measure the study variables. Measurement of variables was done for independent, and dependent variables. Panneerselvam (2010) defines measurement as the assignment of a number to an object which reflects the degree of possession of a characteristic by that object. This study used closed-ended questions and few open-ended questions for independent variables and so the Likert scale was the most suitable for closed-ended questions. The respondents were asked to rate the extent to which the study variables influenced the dependent variable.

The Likert scale, developed by Rensis Likert, which is essentially an interval scale, was designed to examine to what extent the respondents agree with the statement. Chimi and Russel (2009) elucidated that Likert scale is used in nearly all fields of scholarly and business research: when the value sought is a belief, opinion or effect; when the value sought cannot be asked or answered definitely and with precision; and when the value sought is considered to be of such a sensitive nature that the respondents would not answer except categorically in large ranges. The 5-point Likert scale ranged from “Very low extent” which was represented by 1 to “Very great extent” which was represented
by 5. The indicators were analyzed in order to determine the effect of independent variable on the dependent variable (Limo, 2014).

3.11.1. Measurement of Independent Variables

The study used four independent variables that are strategic value addition, product and markets diversification, business environment, and strategic human capital. Each independent variable was measured by evaluating respondents' opinions and related them to the growth of coffee export processing firms. The indicators used for strategic value addition were Continuous improvement of high quality coffee, and Export-oriented coffee processing. Product and markets diversification had the following indicators: Product diversification, and Markets diversification. The indicators used for business environment were Infrastructure development, Access to finance, Regional and international integration. Strategic human capital had the following indicators: Intellectual capital, Technical skills, Experience.

3.11.2. Measurement of Dependent Variable

The dependent variable for the study was measured by determining Sales growth, and Profits. These indicators were paramount in determining the growth of coffee export processing firms. The measurements of variables in this study were conceptualized as provided in table 3.5:
### Table 3.5. Variable Definition and Measurement

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Variables</th>
<th>Variable Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategic Value</strong></td>
<td>- Continuous Improvement</td>
<td>Overall, on a scale of 1 to 5; where 5 represents the highest score and 1 is the least extent.</td>
</tr>
<tr>
<td><strong>Addition</strong></td>
<td>- Export-Oriented Coffee processing</td>
<td></td>
</tr>
<tr>
<td><strong>Product and Markets</strong></td>
<td>- Product Diversification</td>
<td>Overall, on a scale of 1 to 5; where 5 represents the highest score and 1 is the least extent.</td>
</tr>
<tr>
<td><strong>Diversification</strong></td>
<td>- Markets Diversification</td>
<td></td>
</tr>
<tr>
<td><strong>Business Environment</strong></td>
<td>- Infrastructure Development</td>
<td>Overall, on a scale of 1 to 5; where 5 represents the highest score and 1 is the least extent.</td>
</tr>
<tr>
<td></td>
<td>- Access to Finance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Regional and International Integration</td>
<td></td>
</tr>
<tr>
<td><strong>Strategic Human Capital</strong></td>
<td>- Intellectual Capital</td>
<td>Overall, on a scale of 1 to 5; where 5 represents the highest score and 1 is the least extent.</td>
</tr>
<tr>
<td></td>
<td>- Technical Skills</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Experience</td>
<td></td>
</tr>
<tr>
<td><strong>GCEPF</strong></td>
<td>- Sales Growth</td>
<td>Overall, on a scale of 1 to 5; where 5 represents the highest score and 1 is the least extent.</td>
</tr>
<tr>
<td></td>
<td>- Profits</td>
<td>Change in sales growth (High or low)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change in profits (High or low)</td>
</tr>
</tbody>
</table>
CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1. Introduction

This chapter provides information on the findings of the study, and discussion of the results using the techniques which were specified in chapter three. Specifically, the data analysis was in line with specific objectives where patterns were investigated, interpreted and implications drawn on them. The chapter contains the research response rate, demographic characteristics of the study variables, descriptive statistics of the study variables, inferential statistics mainly correlation of variables, regression analysis, hypothesis testing and a summary of the chapter.

4.2. Response Rate

In this research, out of 91 questionnaires administered to the respondents, a total of 91 questionnaires were completed and returned, which represents 100% of a response rate. This response rate is considered to be very satisfactory to make conclusions of the study. This is in agreement with Mugenda and Mugenda (2003) who observed that a response rate of 50% is adequate for analysis and reporting, a response rate of 60% and above is considered to be good, and a response rate of 70% and above is excellent. This also collaborates with Draugalis et al., (2008) with an assertion that a response rate of 50% is adequate, while a response rate of 70% and over is very good. Thus, a response rate of 100% was excellent and therefore enough for the study to proceed to the data analysis, presentation, interpretation and discussion.

The recorded high response rate was attributed to the data collection procedures, whereby the researcher pre-notified the potential respondents of the intended survey on phone (coffee export processing firms and concerned staff of NAEB, MINECOFIN and MINICOM), then questionnaires were distributed and completed ones were sometimes picked immediately from respondents or the researcher made a follow up through phone calls or physical visits to prompt the respondents to fill the questionnaires.
4.3. Demographic Characteristics

The study sought to establish the demographic data of the respondents. The researcher did a general analysis of the demographic data got from the respondents which included gender and category of respondents.

4.3.1. Distribution of Respondents by Gender

The descriptive statistics of the study indicated that the majority of the respondents; 81.3% of the respondents were males while the remaining 18.7% were females as indicated in table 4.1:

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>74</td>
<td>81.3</td>
</tr>
<tr>
<td>Female</td>
<td>17</td>
<td>18.7</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100.0</td>
</tr>
</tbody>
</table>

These results illustrate that majority of coffee export processing firms’ owners are males. It should be noted that after getting inputs from the pilot study, the questionnaire was modified and then distributed to all 91 respondents. The consideration of gender perspective in this study is because there is always recognition of gender issues in formulating all Government of Rwanda policy strategies.

Anderson et al., (2013) conducted surveys to establish the gender-related variation in risk-aversion activities and concluded that female is less competitive as compared to male. They established that women were less overconfident than their male counterparts. Therefore, female avoid challenging and risky situations. By creating opportunities for women enrolled in business to learn new skills, and connect with new global markets, they
can thrive financially (Rwanda Agri-Exports, 2015), thus the importance of enhancing women's participation in the coffee export sector.

4.3.2. Distribution of Respondents by Category

The sample of the study was composed of individuals who were involved in coffee processing and export activities, and have most reliable information which is beneficial to the study. This is summarized in the table 4.2 which indicates that 85.7% of the respondents are coffee processors and exporters, 3.3% of the respondents are the staff of MINICOM and MINECOFIN, while 11.0% are staff of NAEB.

Table 4.2. Distribution of respondents by category

<table>
<thead>
<tr>
<th>Category of Respondents</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coffee Processors and Exporters</td>
<td>78</td>
<td>85.7</td>
</tr>
<tr>
<td>Staff of Ministries</td>
<td>3</td>
<td>3.3</td>
</tr>
<tr>
<td>Staff of NAEB</td>
<td>10</td>
<td>11.0</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.4. Reliability Test Results

Reliability refers to the stability of the measure used to study the relationships between variables and its ability to produce consistent and stable measurements (Ghauri & Grönhaug, 2005). It is the extent to which results of a study are consistent over time and there is an accurate representation of the total population under study (Golafshani, 2003). The measurement of the reliability helps the researcher to gauge the goodness of the variables of measurement (Sekaran, 2010).

For reliability analysis, Cronbach's Alpha coefficient was calculated by application of SPSS and therefore, Cronbach's Alpha coefficient was used to measure the internal consistency of the variable measures. Cronbach's Alpha value is widely used to verify
the reliability of the constructs. The study involved questionnaires from 9 respondents, who were purposely selected to participate in the pilot study. Streiner (2003) stated that the value of the Cronbach's Alpha coefficient ranges from 0 and 1.00 where a high value shows a high level of consistency among the items, and further argued that the value of Alpha coefficient is influenced by the number of items in a scale; it increases as the number of items increases.

Hair et al., (2011) indicate that the values of Cronbach's Alpha are interpreted as follows: Alpha greater than 0.9: Excellent; Alpha between 0.8-0.9: Very Good; Alpha between 0.7-0.8: Good; Alpha between 0.6-0.7: Acceptable; Alpha between 0.5-0.6: Poor; and Alpha less than 0.5: Unacceptable. With the overall Cronbach's Alpha coefficients of 0.759 for all the constructs, this study is considered to be reliable; all variables had alpha coefficients greater than the Cronbach's Alpha coefficient of 0.70 which is acceptable. The reliability test of all the constructs is illustrated in table 4.3 below:

Table 4.3. Reliability test of constructs

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach’s Alpha</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic value addition</td>
<td>0.812</td>
<td>Reliable</td>
</tr>
<tr>
<td>Product and markets diversification</td>
<td>0.757</td>
<td>Reliable</td>
</tr>
<tr>
<td>Business environment</td>
<td>0.739</td>
<td>Reliable</td>
</tr>
<tr>
<td>Strategic human capital</td>
<td>0.728</td>
<td>Reliable</td>
</tr>
<tr>
<td>Overall Cronbach’s Alpha</td>
<td>0.759</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Table 4.3 indicates that all the variables are above the minimum threshold. The findings indicate that Strategic value addition had a Cronbach's Alpha coefficient of 0.812 which is very good, Product and markets diversification had a Cronbach's Alpha coefficient of 0.757 which is good, Business environment had a Cronbach's Alpha coefficient of 0.739 which is good, and Strategic human capital had a Cronbach's Alpha coefficient of 0.728 which is also good, with an overall Cronbach's Alpha coefficient of 0.759; thus the study
was reliable.

4.5. Validity Results

Validity is the extent to which an instrument measures what it is supposed to measure (Lakshmi & Mohideen, 2013). According to Drost (2011), validity is concerned with the meaningfulness of research components. The purpose of validity was to determine whether the research truly measured that which it was intended to measure or how truthful the results were (Patton, 2002). Validity is the degree to which data collection techniques or analysis procedures yield consistent findings; and thus, confirming that the results obtained from the analysis of the data actually represented the phenomenon under study (Borg & Gall, 2007). The results for the validity are shown in Table 4.4.

Table 4.4. Validity Test Results

<table>
<thead>
<tr>
<th>KMO and Bartlett's Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)</td>
</tr>
<tr>
<td>Bartlett's Test of Approx. Chi-Square Sphericity</td>
</tr>
<tr>
<td>Df</td>
</tr>
<tr>
<td>Sig.</td>
</tr>
</tbody>
</table>

The results from the analysis show a KMO of 0.799 which is within the range between 0 and 1. A value of KMO close to 1 indicates that the pattern of correlations are relatively compact and so factor analysis should yield distinct and reliable factors, and therefore the research instrument was valid. Bartlett’s test is valid when the level of significance is less than 0.05. The analysis of validity of the research instrument showed a high level of significance at 0.000 which is less than 0.05, thus another confirmation that the research instrument was valid.
4.6. Descriptive Results of the Study Variables

Descriptive analysis focuses on describing the basic feature of the data in a given study (Cooper & Schindler, 2011). All the study variables have been described as follows:

Descriptive analysis focuses on describing the basic feature of the data in a given study (Cooper & Schindler, 2011). In this study, the researcher interpreted the percentage of respondents, the mean and the standard deviation. Specifically, the researcher interpreted the mean and related it to the degree of agreement of the highlighted statement or the reality in coffee export processing firms such that a mean below 1.5 represents a very low extent; a mean of 1.5 to 2.4 represents low extent; a mean of 2.5 to 3.4 represents moderate extent; a mean of 3.5 to 4.4 represents great extent; and a mean above 4.4 represents very great extent.

The standard deviation from the mean represents the level of convergence of the respondents on the mentioned statement such that a standard deviation below 0.7 represents most convergence; a standard deviation of 0.7 to below 0.9 represents more convergence; a standard deviation of 0.9 to below 1.1 represents moderate convergence; a standard deviation of 1.1 to below 1.3 represents less convergence; and a standard deviation of 1.3 and above represents least convergence. Results of the descriptive statistics are shown from Table 4.5 to Table 4.9. using a Likert scale of 1-5 where 5= Very great extent; 4=Great extent; 3=Moderate; 2= Low extent; 1 = Very low extent, M= Mean, SD= Standard deviation and % = Percentage of the respondents.

4.6.1. Influence of Strategic Value Addition on the Growth of Coffee Export Processing Firms

The first objective of the study was to determine the influence of strategic value addition on the growth of coffee export processing firms in Rwanda. Table 4.5. illustrates the descriptive statistics associated with strategic value addition, which was assessed through five factors including continuous improvement of high quality coffee, tight quality control of coffee processing, quality and access to the world coffee markets,
sensitization of coffee farmers on quality and importance of coffee washing stations on quality coffee.

Table 4.5. Descriptive Statistics of Strategic value addition

<table>
<thead>
<tr>
<th>Continuous improvement of high quality coffee</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tight quality control of coffee processing</td>
<td>73.6</td>
<td>25.3</td>
<td>1.1</td>
<td>0</td>
<td>0</td>
<td>4.73</td>
<td>0.473</td>
</tr>
<tr>
<td>Quality and access to the world coffee markets</td>
<td>81.3</td>
<td>14.3</td>
<td>4.4</td>
<td>0</td>
<td>0</td>
<td>4.77</td>
<td>0.518</td>
</tr>
<tr>
<td>Sensitization of coffee farmers on coffee quality at the production level</td>
<td>46.1</td>
<td>48.4</td>
<td>5.5</td>
<td>0</td>
<td>0</td>
<td>4.41</td>
<td>0.596</td>
</tr>
<tr>
<td>Importance of coffee washing stations on the quality of coffee processed</td>
<td>39.6</td>
<td>49.4</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>4.29</td>
<td>0.655</td>
</tr>
<tr>
<td>Overall mean and standard deviation</td>
<td>4.58</td>
<td>0.584</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the results in Table 4.5, the computed Likert item mean scores ranged from 4.29 to 4.77; four Likert item means were 4.4 and above which indicated that the respondents agreed at a very great extent that continuous improvement of high quality coffee, tight quality control of coffee processing, access to the world coffee markets and sensitization of farmers on quality coffee, had a significant influence on the growth of coffee export processing firms.

The lowest Likert item mean was 4.29 but still illustrating that coffee washing stations to a great extent had a significant influence on the quality of the finished coffee, and hence enhance the growth of coffee export processing firms. All the standard deviation scores were below 0.7 and ranged from 0.473 to 0.655 indicating most convergence of the respondents on all the mentioned statements.

The overall mean of 4.58 indicated to a very great extent that the respondents were in agreement that there is a significant and positive influence of strategic value addition on the growth of coffee export processing firms; this is also shown by the overall standard
deviation of 0.584 which is not large and represented the most convergence of the respondents on this statement. Hence, strategic value addition should be treated as a critical issue for the success and growth of coffee export processing firms.

Specifically, the results of the descriptive statistics displayed in table 4.5 indicated that 97.8% of the respondents were in agreement that continuous improvement of high quality coffee has a significant and positive influence on the growth of coffee export processing firms while 2.2% were neutral. The Likert item mean of 4.75 which is high and the standard deviation of 0.508 indicating that most of the responses were close to each other emphasized that continuous improvement of high quality coffee should be given an important consideration by coffee export processing firms.

The findings collaborate with those of Belling (2000) who observed that quality attributes may be improved through proper production and that the processing methods are important in improving the quality of coffee. This is also supported by Bytof et al., (2000) and Knopp, et al., (2006), who explained that the maintenance and improvement of quality are crucial in sustaining the quality of coffee in the long run and add value to the product.

In regard to the tight quality control of coffee processing, 98.9% of the respondents were in agreement that tight quality control of coffee processing has an influence on the growth of coffee export processing firms while 1.1% were neutral. The Likert item mean of 4.73 which is high, and the standard deviation of 0.473 which is small highlighted the significant influence of tight quality control of coffee processing on the growth of coffee export processing firms.

The study was in agreement with the findings by Belling (2000) who stated that the price paid to different coffee qualities depends on the type of coffee, bean size, processing, color, taste, and the reputation of the country of origin. Obtaining a price premium thus depends as much on the ability to get a quality coffee (Ponte, 2002). The results also relate with the research by Arya and Rao (2007) on coffee quality which focused on
coffee processing methods and quality control. Thus, the Department in charge of Quality at NAEB should always focus on coffee quality control with a key objective of continuously improving the quality of coffee, which in turn facilitates the coffee marketing system to be standard based.

For quality and access to the world coffee markets, 95.6% of the respondents were in agreement that access to the world coffee markets has a significant influence on the growth of coffee export processing firms while 4.4% were neutral. The Likert item mean of 4.77 which is high, and the standard deviation of 0.518 which indicates that data are close to the mean, were good indicators of a significant and positive influence of access to the world coffee markets on coffee quality, hence contributing to the growth of coffee export processing firms.

The study findings are supported by Leroy et al., (2006a) who argued that coffee quality, in the present context of over-production worldwide, has to be considered as the main selection criterion to access international markets. The results by Behailu et al., (2008) also indicated that it has been repeatedly mentioned at various forum that providing good quality coffee is the only way out and viable option to get into the world market and to remain competitive. The International Standard Organization (2015) established that quality is considered as the ability of a set of inherent characteristics or attributes of a product, system or process to fulfill the requirements of customers and other interested parties. Coffee quality also deals with taste and flavour, and the best quality attracts many international markets.

Jena et al., (2012) emphasized that as certification is often a costly process that might limit benefits for producers, setting up cheaper local certification schemes that would be credible on international markets and that would benefit local producers directly should be considered. Furthermore, as many of these international certification schemes require collaboration with international institutions, further capacity building of staff in coffee export processing firms is required.
Results on sensitization of coffee farmers on quality indicated that 94.5% of the respondents agreed that the sensitization of coffee farmers on how they should improve the quality of coffee has an influence on the growth of coffee export processing firms while 5.5% were neutral. The Likert item mean of 4.41 indicates to a great extent that the respondents were in agreement that the sensitization of coffee farmers is necessary for the improvement of the quality of coffee, and the standard deviation of 0.596 underlines that the sensitization of coffee farmers on quality has an influence on the growth of coffee export processing firms.

The findings corroborate with those of Leroy et al., (2006) who emphasized that the harvesting method itself affects coffee quality. Therefore, farmers need to be sensitized about how they should take care of their coffee trees and the quality of cherries that should be harvested. This also relates to the study by Yigzaw (2005) who emphasized that coffee grown with heavy application of nitrogen fertilizer has poorer, lighter and thinner quality.

Wintgens (2009) stated that good growth conditions usually have a positive effect on bean size and flavor. The research by Farah et al., (2006) highlighted that researchers should look into which of the chemical compounds present in roasted coffee are linked most strongly to aroma and perceived quality. Furthermore, Bytof et al., (2000) and Knopp et al., (2006) emphasized that each step of the processing methods is important.

In regard to the importance of coffee washing stations on the quality of coffee processed, 89% of the respondents were in agreement that coffee washing stations have a significant influence on the growth of coffee export processing firms, and 11% were neutral. The Likert item mean of 4.29 indicated to a great extent that coffee washing stations are very important because that is where the coffee cherries are processed, and the standard deviation of 0.655 was a good indication that data were close to the mean; thus illustrating the influence of coffee washing stations in improving the quality of coffee, and its positive impact on the growth of coffee export processing firms.
The findings concurred with those of Alemayehu et al., (2008) who highlighted that inadequate processing methods were responsible for the widespread failure to maintain the inherent quality of coffee produced. The study by Behailu et al., (2008) also indicated that the final quality of coffee among other factors is greatly dependent upon the fermentation process which is done in the coffee washing stations.

A study by Wollni and Zeller (2007) established that coffee washing stations play an important role in improving the quality of coffee at different levels. Through their research findings, they reported that coffee washing stations are considered as the means for producing high quality coffee and are structural elements in the rural areas. This is because they are very close to farmers and are the first ones to evaluate the quality of cherries harvested and supplied by farmers. Coffee washing stations conduct a processing following different stages such as sorting and grading cherries, washing and processing of coffee parchment, etc. If these processes are carefully conducted, it will eventually lead to a high quality coffee to be sold on the international markets.

In an open ended question related to the importance of coffee washing stations in improving the quality of Rwanda coffee, 75.9% of the respondents indicated that coffee washing stations play an important role because coffee cherries brought by coffee farmers processed at coffee washing stations and if all the processing stages are not well done, then this will have an impact on the quality of final coffee. Out of the total number of respondents, 24.1% were moderate. Hence, coffee washing stations should use adequate coffee processing methods which have an effect on the coffee taste and color.

These findings concurred with those of Alemayehu et al., (2008) who highlighted that inadequate processing methods were responsible for the widespread failure to maintain the inherent quality of coffee produced. The study by Behailu et al., (2008) also indicated that the final quality of coffee among other factors is greatly dependent upon the fermentation process which is done in the coffee washing stations.
A study by Wollni and Zeller (2007) established that coffee washing stations play an important role in improving the quality of coffee. Through their research findings, they reported that coffee washing stations are considered as the means for producing coffee and are structural elements in the rural areas. This is because they are very close to farmers and are the first ones to evaluate the quality of cherries harvested and supplied by farmers. Coffee washing stations process coffee following different stages such as sorting and grading cherries, washing and processing of coffee parchment. If these processes are carefully conducted, it will eventually lead to a high quality coffee to be sold on the international markets.

4.6.2. Influence of Product and Markets Diversification on the Growth of Coffee Export Processing Firms

The study sought to identify the influence of product and markets diversification on the growth of coffee export processing firms in Rwanda.

Table 4.6. Descriptive Statistics for Product and Markets Diversification

<table>
<thead>
<tr>
<th>Constraints of product and markets diversification</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>include limited domestic capital, technology and market knowledge</td>
<td>45.1</td>
<td>31.9</td>
<td>23</td>
<td>0</td>
<td>0</td>
<td>4.22</td>
<td>0.800</td>
</tr>
<tr>
<td>Market diversification helps to choose the best international markets offering high price</td>
<td>62.6</td>
<td>25.3</td>
<td>12.1</td>
<td>0</td>
<td>0</td>
<td>4.51</td>
<td>0.705</td>
</tr>
<tr>
<td>Highly skilled human capital, innovation and managerial competences allow to reach superior firms' growth</td>
<td>60.3</td>
<td>29.8</td>
<td>5.5</td>
<td>4.4</td>
<td>0</td>
<td>4.46</td>
<td>0.793</td>
</tr>
<tr>
<td>Exporting firms have more opportunities for product and market diversification</td>
<td>51.6</td>
<td>41.8</td>
<td>4.4</td>
<td>2.2</td>
<td>0</td>
<td>4.43</td>
<td>0.685</td>
</tr>
<tr>
<td>Appropriate marketing strategies are necessary to venture into international markets</td>
<td>93.4</td>
<td>6.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.93</td>
<td>0.250</td>
</tr>
<tr>
<td>Overall mean and standard deviation</td>
<td>4.50</td>
<td>0.768</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4.6 provides the results for the study on the influence of product and markets diversification on the growth of coffee export processing firms in Rwanda. This was assessed in terms of five factors namely the constraints of product and markets diversification, choosing the best international markets offering high price, highly skilled human capital, innovation and managerial competences to reach superior firms’ growth, opportunities for product and markets diversification, and putting in place appropriate marketing strategies.

Product and markets diversification overall mean of 4.50 emphasized to a very great extent that product and markets diversification have a significant and positive influence on the growth of coffee export processing firms, and the overall standard deviation of 0.768 indicated that there was more convergence of respondents on product and markets diversification. On all aspects of product and markets diversification, the Likert item mean scores were high ranging from 4.22 to 4.93 while the standard deviation ranged from 0.250 to 0.800.

The lowest Likert item mean was 4.22, where 77% of the respondents agreed that coffee export processing firms were still facing some constraints of product and markets diversification such as lack of domestic capital, technology and professional knowledge to diversify how coffee is currently being processed and how Rwanda coffee is sold on international markets, while 23% of the respondents were neutral. This is also explained by the highest standard deviation which is 0.800, indicating that responses were more scattered around the mean compared to the remaining factors.

A study by Cadot et al., (2007) stated that product diversification is often constrained by limited domestic capital, technology and market knowledge. These authors added that sometimes, it is easier to develop new products for your existing markets than to invest in business development of the new markets. The advantage is that you already have a customer base and know what they want. Indeed, many empirical studies like the ones of Sachs et al., (2004) and Bloom et al., (2010) wrote about Africa’s failure to discover new products and new markets, hence the problem in diversifying into value added products.
The Likert item statement "Putting in place appropriate marketing strategies" had the least standard deviation of 0.250 which meant most convergence of the respondents on this statement because 100% of the respondents confirmed the importance of putting in place appropriate marketing strategies in coffee export processing firms. This Likert item statement also had the highest Likert item mean of 4.93 which showed that the degree of agreement by respondents was at a very great extent.

Previous empirical studies appear to be in agreement with these results. Baldwin & Harrigan (2007), Kang (2006), Campbell & Hopenhayn (2005) have shown that the market size matters for exporting a large number of fully washed coffee. Adebisi, (2006) also stated that a company's marketing system must operate within the framework of forces which constitute the system's environment, as the major environmental forces are external variables which are not easily controlled or manipulated by the management of any firm.

In regard to choosing the best market offering high price, 87.9% of the respondents were in agreement that by expanding international markets and participating in the competition of coffee cup of excellence, coffee export processing firms will be able to choose the best international markets offering high price. Among the respondents, 12.1% were neutral. This Likert item statement had the Likert item mean of 4.51 indicating an agreement of the respondents to a very great extent that choosing the best international markets would have a significant and positive influence on the growth of coffee export processing firms. This Likert statement also had a standard deviation of 0.705 which indicated more convergence of the responses from the respondents.

These findings relate with that of Cadot et al., (2007) who stated that one of the objectives of product and markets diversification is to reduce dependence upon one or a limited number of geographical destinations for export products. Kale and Singh (2009) also elucidate that going global can reduce a company's reliance on local and national markets. Larger markets also mean the potential for greater profits, so companies go global to seek new business opportunities. Proper effective communication will be a
key element for global strategies because what is proper and effective in one culture may be ineffective and improper in another culture.

Results on the Likert item statement "highly skilled human capital, innovation and managerial competences to reach superior firms' growth" revealed that 90.1% were in agreement that human capital is of great importance to enhance superior firm's growth, 5.5% were neutral while 4.4% disagreed about this statement. The Likert item mean was 4.46 indicating an agreement of the respondents at a very great about the statement, and the standard deviation was 0.793 which showed more convergence of the responses provided by the respondents.

The study was in congruence with the findings of a study by Allio (2005), who postulated that managerial competences are very important as everything in the current market environment relies on the individual’s ideas, knowledge, innovation and skills. It is also asserted that the human capital and the managerial competences in an organization are the most important intangible asset, especially in terms of innovation.

In regard to opportunities for product and markets diversification, 93.4% of the respondents were in agreement that there are many opportunities for product and markets diversification that coffee export processing firms should be able to explore, 4.4% were neutral while 2.2% disagreed with the statement. The Likert item mean was 4.43 indicating a great agreement of the respondents about the statement, and the standard deviation was 0.685 indicating that most of the responses provided by the respondents were very close to each other.

The findings were in agreement with those of Gresser and Tickell (2002) who revealed that the price for roasted coffee almost doubles that of fully washed coffee. Mishina et al., (2004) argued that product extension and market development notably and significantly affects firm’s growth. Encouraging firms to invest in roasted coffee is thus recognized as one of the most important mechanisms for improving long run performance of those firms. This view is also broadly supported by the existing literature
of Hall et al., (2010) which provided robust evidence that product diversification have a positive impact on firm productivity.

This has been also extended to measures of product diversification by Klinger and Lederman (2004) who revealed that coffee should be exported to identified destinations, acquire the required capabilities to export to new destinations and innovate to produce better processed products necessary to compete on the regional and international markets. Access to accurate and relevant market information is a virtual prerequisite to sustainable international markets. Markets can be explored outside the current markets or unexplored needs and wants (Johns & Pineb, 2002) of current market’s segments.

In an open ended question concerning marketing strategies that should be used in Rwanda to promote its coffee export on various international markets, 100% of the respondents indicated that there was a need to explore more opportunities to market Rwandan coffee on international markets. They talked about e-commerce opportunities to promote Rwandan coffee to the global markets. This would allow coffee export processing firms to increase the foreign earnings.

The respondents also highlighted the transformative power of technology through online markets to see how coffee export processing firms could shape its own digital future. The respondents also emphasized that bilateral and multilateral cooperation, participating in African and world Coffee conference and exhibitions were very important in order to increase the competitiveness of coffee exporters as they get new ideas and inspirations by engaging with more consumers from around the world.

Previous empirical studies appear to be in agreement with these results. Johnson (2010) focused on effects of marketing strategies on the performance of insurance companies in Kenya. His research found that sales promotion strategy, increases firms' sales and profitability. Baldwin and Harrigan (2007), Kang (2006), Campbell and Hopenhayn (2005) have shown that the market size matters for exporting a large number of fully washed coffee. Adebisi (2006) also stated that a company's marketing system must
operate within the framework of forces which constitute the system's environment, as the major environmental forces are external variables which are not easily controlled or manipulated by the management of any firm.

4.6.3. Influence of Business Environment on the Growth of Coffee Export Processing Firms

The study sought to determine the influence of business environment on the growth of coffee export processing firms in Rwanda.

Table 4.7. Descriptive Statistics for Business Environment

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate response to customer needs allows firms to survive in</td>
<td>37.4</td>
<td>51.6</td>
<td>9.9</td>
<td>1.1</td>
<td>0</td>
<td>4.25</td>
<td>0.676</td>
</tr>
<tr>
<td>a business environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A conducive environment is key to the success of coffee</td>
<td>46.4</td>
<td>53.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.46</td>
<td>0.501</td>
</tr>
<tr>
<td>export processing firms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional and international cooperation is a significant channel</td>
<td>48.4</td>
<td>45</td>
<td>6.6</td>
<td>0</td>
<td>0</td>
<td>4.41</td>
<td>0.615</td>
</tr>
<tr>
<td>to reach international markets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to finance is key to the success of coffee export</td>
<td>49.5</td>
<td>41.7</td>
<td>8.8</td>
<td>0</td>
<td>0</td>
<td>4.41</td>
<td>0.649</td>
</tr>
<tr>
<td>processing firms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government interventions are required to address issues to</td>
<td>56</td>
<td>35.2</td>
<td>8.8</td>
<td>0</td>
<td>0</td>
<td>4.47</td>
<td>0.656</td>
</tr>
<tr>
<td>access financial resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inadequate infrastructure and poor transport network are</td>
<td>40.7</td>
<td>27.5</td>
<td>31.9</td>
<td>0</td>
<td>0</td>
<td>4.09</td>
<td>0.852</td>
</tr>
<tr>
<td>impediment to the growth of coffee export processing firms</td>
<td></td>
<td></td>
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<tr>
<td>Lack of sufficient power energy is a big challenge for firms'</td>
<td>62.6</td>
<td>27.5</td>
<td>5.5</td>
<td>4.4</td>
<td>0</td>
<td>4.48</td>
<td>0.794</td>
</tr>
<tr>
<td>productivity</td>
<td></td>
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<tr>
<td>Access to Information and Communication Technology is key to</td>
<td>31.9</td>
<td>56</td>
<td>12.1</td>
<td>0</td>
<td>0</td>
<td>4.2</td>
<td>0.636</td>
</tr>
<tr>
<td>coffee production and access to world market</td>
<td></td>
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<tr>
<td>Sharing of information by different coffee actors in the</td>
<td>54.9</td>
<td>37.4</td>
<td>5.5</td>
<td>2.2</td>
<td>0</td>
<td>4.45</td>
<td>0.703</td>
</tr>
<tr>
<td>value chain is necessary in enhancing the quality of coffee</td>
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<tr>
<td><strong>Overall mean and standard deviation</strong></td>
<td>4.36</td>
<td>0.717</td>
<td></td>
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</tbody>
</table>
Table 4.7 provides the results for the influence of business environment on the growth of coffee export processing firms. The business environment overall mean of 4.36 indicated to a great extent that it is very necessary to provide a conducive and enabling environment to coffee export processing firms. The overall standard deviation of 0.717 illustrated that there was a more convergence of the respondents on business environment. In all aspects of business environment in the questionnaire, the Likert item mean scores were high and varied from 4.2 to 4.48.

The lowest Likert item mean was 4.2 for access to information and communication technology, whereby 87.9% of the managers agreed that coffee export processing firms should promote the use of ICT while processing quality coffee and ICT should be considered as one of the strategies to market Rwandan coffee on international markets, 12.1% were neutral.

The standard deviation for access to information and communication technology is 0.636 which indicates that there was most convergence of the respondents on access to information technology. Technological Innovation is one of the key aspects of a learning organization that attempts to continuously align itself to economic development and continuously address the competitive environment in which it operates. This way the organization aims at coming up with new ideas backed with modern technological advancements.

Sirawit et al., (2011) observed that the use of ICT is an integral part of hotels because it increases hotel performance in various ways. Information and communication technology positively influences employee performance because it is the human capital that spearheads innovations. All types of ICT will be totally dependent on the human resource of the organization (Zaheer et al., 2011).

Wong et al., (2007) confirmed a positive relationship between innovation and organizational performance and therefore when an organization achieves competence in making a certain product it can add value to the product by investing in the latest and
modern technology. Cagna (2007) proposes ICT as one of the ways for the survival of organizations today. Shimpton et al., (2006) stated that ICT can be sustained by involving human resources to manage, create, transfer and implement knowledge. Barkhi and Daghfous (2009) also stated that competition among hotels is a major catalyst for the need for innovation and technology because of the dynamic nature of today’s organizations. Hotels just like other organizations have been forced to look for new sources of competitive advantage, one of which is ICT (Raisinghani, 2005).

These findings relate with results from Kemal et al., (2002) who stated that the increase in foreign trade caused by the growth in export trade facilitates exporters to have access to new technologies. Yeaple (2005) highlighted that firms could invest in productivity-enhancing technology in anticipation of larger export markets. A firm, which is unable to cope with the technological changes, may not survive.

A study by Kazmi (2008) realized that technological developments may increase the demand for some existing products to be exported. Furthermore, technological shifts can affect costs, quality, and lead to innovation. Hakanson et al., (2012) also highlighted that the proliferation of the internet has provided a solution, and some coffees are now purchased through online auctions. The ability of an organization to achieve higher usage by customers can be greatly enhanced by rapidly changing technologies that encourage users to upgrade or that offer more reasons to use the product or service (Strauss, 2004).

The Likert item statement "A conducive environment is key to the success of coffee export processing firms" had the least standard deviation of 0.50 which meant most convergence of the respondents on this statement as indicated by 100% of the respondents' agreement to a very great extent that a conducive environment is key to the success of coffee export processing firms. If the growth of coffee export processing firms is not attained, then it is due to other factors other than conducive business environment. The Likert item mean was 4.46 which confirmed to a great extent that a conducive environment is key to the success of coffee export processing firms.
Previous empirical studies appear to be in agreement with these results. Barney and Hesterly (2010) in a study entitled influence of business location, business character of the business strategy and business performance, concluded that business location significantly influence the growth of any business. Atsegbua (2002) wanted to find out whether the business environment has an influence on the growth of any given company and the results concluded that there was a statistically positive influence which is able to contribute in generating profits for the company. Therefore, it is apparent that the business environment influences the organization growth and performance, and that performance can be improved through continuously improving the business environment.

Results for the statement "Survival in a business environment" revealed that 89% of the respondents were in agreement that for any business to remain competitive and survive in a business environment, it has to attain high profit, 9.9% were neutral and 1.1% disagreed with this statement. The Likert item mean was 4.25 which confirmed at a great extent that for each firm to prosper, it has to survive in a business environment. The standard deviation of 0.676 is an indication of a most convergence of the respondents on this statement.

The findings relate with the study conducted by Oladele (2006) who specified that most of the organizations are currently developing different types of strategies that will sustain them in their business environment. This enables the business to identify the areas for growth and expansion of their activities. Findings by Adebis (2006) also indicated that strategic management is about assessing why some organizations are doing fine and why some others are doing otherwise in the same environment with the same opportunities and threats.

About the importance of regional and international cooperation, 93.4% of the respondents were in agreement that regional and international cooperation is of a great importance to the growth of coffee export processing firms, while 6.6% were neutral. The Likert item mean was 4.41 which highlighted to a very great extent that regional
and international cooperation is one of the strategies to explore new markets opportunities to make Rwanda coffee quality recognized, and for coffee export processing firms to share expertise and know-how. The standard deviation was 0.615 which is an indication that there was most convergence of the respondents on this statement.

A research by Zohal (2011) was in agreement with these findings as it stated that companies go regional or international for a variety of reasons but the typical goal is the company's growth or expansion. When a company searches for new markets abroad, an international strategy can help diversify and expand a business. Zohal (2011) also mentioned that coffee production is intimately inter-twined with international markets; since the vast majority of coffee is produced for export, the circumstances of coffee production and trade are, to a large extent, a direct response to signals from such markets.

Zürn (2004) revealed that regional and international cooperation enable participating countries to overcome the small size of their domestic markets and achieve economies of scale and greater specialization in production, thus increasing the competitiveness of their products. Access to a larger market enables developing countries both to expand existing industries and to diversify exports. Regional and international cooperation also enhances the capacity of developing countries to overcome emerging challenges, including the application of new technologies.

Bradford and Linn (2007) emphasized that regional and international cooperation in trade, transport and other areas can help to cope with these challenges. For example, it offers significant benefits by reducing the costs of transactions across international borders and removing non-border obstacles. Such arrangements help countries to develop a common understanding on international issues.

A study by Wouters and De Man (2009) illustrated that one of the main reasons why states want to establish or participate as members of regional and international
cooperation is related to the fact that they delegate authority in matters that require expertise, knowledge, information, time and resources that are not available in their countries at all times. Cooperation in ICT, transport, infrastructure and energy facilitates cooperation in trade, investment, and technology transfer, financial cooperation, and all these directly promote growth.

Griffin (2003) stated that the main attributes of regional and international cooperation continue to be for facilitating negotiations and implementing agreements, dispute resolution, offering technical assistance and developing rules. But the most important thing remains their neutrality, impartiality and independence. Neutrality enables organizations to act as mediators between countries and to implement their decisions. Impartiality resides on the fact that neither part is favored whatever the subject is. And independence resides on the fact that countries in regional or international cooperation can take decisions for themselves.

Results on the statement "Access to finance for the success of coffee export processing firms", 91.2% were in agreement that for coffee export processing firms to diversify processing methods and expand access to international markets, they have to record a high level of its finance, 8.8% were neutral. The Likert item mean was 4.41 which confirmed to a very great extent that access to finance is very important for the success of coffee export processing firms. The standard deviation of 0.649 was a good indication of most convergence of the respondents on this statement.

The findings were in congruence with those of Greenaway et al., (2005) who highlighted that an important determinant of firms' investment and participation in the export market is finance. They therefore confirmed that firms that have better access to financial resources are capable of meeting expenses and the costs associated with the export and are more likely to increase their involvement on the international markets. The results confirm those of Hellen (2002) and Peter (2001) that inaccessibility of credit has significant effect on the performance of business enterprises. Beck and Vojislav (2006) as well as Demirguc and Levine (2009) were in agreement that in highly unequal
economies in terms of income distribution, large segments of the population cannot afford the costs of using services in the formal financial system.

A study by Beck et al., (2004) stated that available evidence indicates that commercial banks in developing economies would rather invest their funds in less risky ventures than to place such funds in the development of coffee export sector. This is because coffee, like any other agricultural goods, is a seasonal product requiring investments prior to harvest and revenue returns.

The findings by Harris and Li (2011) highlighted that access to financial services is a powerful means of attaining the growth of any company. Some coffee export processing firms perceive lack of access to finance as one of their main constraints since access to finance gives several benefits; one of them being to allow them to make larger investments in capital and new technologies.

Some coffee export processing firms with a low capital and savings base frequently rely on advances and credit to supply requisite pre-harvest inputs purchases at highly discounted rates. Requirements associated with selling on international markets also present significant barriers to higher revenues for smaller coffee export processing firms. The literature on access to finance has identified a number of constraints for access to finance, both on the supply and the demand side. The classification of obstacles to finance suggested by Rojas-Suarez (2007) and further explored by Reinhart, Rojas-Suarez et al., (2010) provide graphic evidence and partial correlations between access to finance and some of the most important indicators of obstacles to access finances.

For the Likert item statement "Government interventions in improving access to finance", 91.2% agreed that the government should play a key role in facilitating coffee export processing firms to have access to finance in financial institutions while 8.8% were neutral. The Likert item mean was 4.47 which illustrated to a very great extent the importance of the government interventions in improving access to finance. The
standard deviation was 0.656 which was an indication of most convergence of the respondents on this statement.

The study by Love (2003) emphasized that there is no doubt that firms will always want financial resources at lower interest rates, and flexible conditions to fund their operations. This is because export activities entail extra up front expenditures that may force firms to rely on external finance. Auboin (2011) emphasized that the government should put in place programs which should aim at lowering costs of financial services, so that firms are not discouraged from seeking financial services. The government should also put in place appropriate financial sector regulations and a Guarantee Fund for coffee exports.

Ratti et al., (2008) also stated that collateral requirements can hinder expansion of existing firms and the creation of new businesses. Lack of access to finance keeps companies from reaching higher levels of sustainable growth and taking advantage of opportunities in the business environment. The intervention of government is necessary to relieve the constraints faced by coffee export processing firms.

Results displayed under the statement "inadequate infrastructure and poor transport network" indicated that 68.1% of the respondents were in agreement that inadequate infrastructure and poor transport network had a negative impact to the growth of coffee export processing firms, 31.9% were neutral. The Likert item mean was 4.09 which confirmed to a moderate extent that for coffee export processing firms to grow, there is a need for adequate infrastructure and appropriate transport network. The standard deviation was 0.852 which indicated moderate convergence of the respondents on this statement.

The findings were in agreement with Fan and Zang (2004) who stated that the most important type of transport infrastructure in the rural areas is the road network. Rwanda has made significant achievements in developing transport infrastructure in recent years. However, the issue of providing adequate transport infrastructure still needs to be looked
into because most of coffee washing stations are located in rural areas where road transport is needed.

Therefore, the government should regularly assess the existing transport infrastructure problems. This can be done in collaboration with the owners of coffee export processing firms. Calderón and Chong (2004) provided additional insight that reinforces the sense of robustness of the impact of infrastructure. They highlighted that understanding infrastructure matters to growth is relatively well recognized and should widely be understood among practitioners and policy makers. Easterly et al., (2001) also highlighted the effect of infrastructure on company's growth and stated that weak infrastructure is an impediment to the growth of firms.

The results were also in agreement with Crafts (2009) who stated that there was a lack of long term strategic thinking for the road network. Inadequate infrastructure in some areas remains a major obstacle towards achieving the growth of coffee export processing firms. Rwanda being seen as one of the world's fastest growing economic hubs, meeting the demand for key infrastructure should be identified as a priority. However, the study by Limao and Venables (2001) also indicated that there is a considerable evidence that in most African countries, transport costs are much higher than in other world regions.

Djankov et al., (2006) also realized that implicit time costs, in the form of shipping delays, were also well above the international norm. Qualitatively, this is in accordance with the general fact that landlocked economies typically face high explicit and implicit trade costs, and this in turn causes a major barrier to trade and hamper exports.

Limao and Venables (2001) highlighted that poor infrastructure accounts for 40 percent of transport costs in coastal countries and up to 60 percent in landlocked countries. He therefore concluded that infrastructure is responsible for a good portion of records of high transport costs. Lumbila (2005) found out that deficient infrastructure may hinder growth impact of Foreign Direct Investment in Africa.
Results on the statement "Lack of sufficient power energy" indicated that 90.1% of the respondents agreed that lack of sufficient power energy is an impediment to the growth of coffee export processing firms, 5.5% were neutral while 4.4% disagreed with the statement. The Likert item mean was 4.48 which confirmed to a very great extent that power energy is very necessary more especially during the processing of coffee. The standard deviation was 0.794 which highlighted more convergence of the respondents on this statement.

The findings relate with the research by Garsous (2012) who realized that, ceteris paribus, studies focusing on the energy sector are more likely to find a robust positive impact on the growth of business companies than any other infrastructure sector. In other words, investing in the energy sector may be the safest way to achieve a high rate of return.

The importance of access to electricity has also been documented by Dethier et al., (2008) who stated that there was a positive impact of power energy on growth. This should not be a surprise as energy is indeed an input into any of the other infrastructure subsectors; for instance, water is often pumped using electricity pumps. Estache and Vagliasindi (2007) argued that an insufficient power generation capacity limits the growth of coffee export processing firms.

Results on the statement "Sharing of information by different coffee actors in the value chain" indicated that 92.3% agreed that all actors in the coffee value chain should share information because the quality of coffee should be reached at each level from the production level, processing, packaging, etc. The Likert item mean 4.45 which indicated the level of agreement that sharing of information by different coffee actors was important, was high. The standard deviation was 0.703 which was an indication of most convergence of the respondents on this statement.

This study relates to the one by DaMatta (2008) who stated that all actors along the coffee value chain are highly interdependent, where actions at one level can influence
actions at the other levels. Different stakeholders have to take actions that make coffee export sector more profitable. As discussed in the study by Mureithi (2008), all stakeholders of coffee industries are expected to increase their awareness that improvement of coffee quality is a must.

Adugna et al., (2008) stated that there was a need for collaboration and synergies which will enable different coffee actors to take substantial actions in order to improve the quality of coffee. This issue must be lifted at national level to make all stakeholders aware about what is required for Rwanda to get high quality coffee. This can also be realized by increasing communication to all stakeholders by various forms of media, such as seminars, workshops, meetings, and publications in mass media.

In an open ended question about whether the business environment have a positive impact on the growth of coffee export processing firms in Rwanda, 98.9% of the respondents agreed that there was a positive impact while 1.1% were in disagreement. Those in agreement highlighted that for any business to prosper, there should be a conducive environment ready to facilitate business owners to increase their profits.

Hence, infrastructure and transport network need to be developed, enough power energy needs to be supplied, and coffee export processing firms need to be facilitated to have access to finance which will help in diversifying the processing methods and expand the coffee market on international level. Coffee export processing firms should always strive to minimize their operational costs which will read to increase in profits.

Previous empirical studies appear to be in agreement with these results. Barney and Hesterly (2010) in a study entitled influence of business location, business character of the business strategy and business performance, concluded that business location significantly influence the growth of any business. Atsegbua (2002) wanted to find out whether the business environment has an influence on the growth of any given company and the results concluded that there was a statistically positive influence which is able to contribute in generating profits for the company. Therefore, it is apparent that the
business environment influences the organization growth and performance, and that performance can be improved through continuously improving the business environment.

4.6.4. Influence of Strategic Human Capital on the Growth of Coffee Export Processing Firms

The study sought to identify the influence of business environment on the growth of coffee export processing firms in Rwanda.

Table 4.8. Descriptive Statistics for Strategic Human Capital

<table>
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<tr>
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<th>2</th>
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<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of technical skills and qualifications</td>
<td>68.1</td>
<td>31.9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.68</td>
<td>0.469</td>
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<tr>
<td>Experienced workforce, a competitive advantage for firm's high performance</td>
<td>42.9</td>
<td>52.7</td>
<td>4.4</td>
<td>0</td>
<td>0</td>
<td>4.38</td>
<td>0.572</td>
</tr>
<tr>
<td>Importance of short-term trainings</td>
<td>65.9</td>
<td>34.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.66</td>
<td>0.477</td>
</tr>
<tr>
<td>Capabilities and skills to market Rwandan coffee</td>
<td>67</td>
<td>33</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.67</td>
<td>0.473</td>
</tr>
<tr>
<td>Competence, experience and skills of managers to run the firm</td>
<td>57.6</td>
<td>57.6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5.23</td>
<td>0.473</td>
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<tr>
<td>and access international markets</td>
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<tr>
<td>Hiring and retaining best employees</td>
<td>50.5</td>
<td>49.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.51</td>
<td>0.503</td>
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<tr>
<td><strong>Overall mean and standard deviation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.58</td>
<td>0.508</td>
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</table>

From Table 4.8, the computed Likert item mean scores ranged from 4.38 to 4.68; five Likert item means were above 4.4 which indicated that the respondents agreed at a very great extent that technical skills and qualification, experienced workforce, short term trainings, capabilities and skills to market Rwanda coffee, competence and skills of managers to run the firm, hiring and retaining best employees had a significant influence on the growth of coffee export processing firms.
The lowest Likert item mean was 4.38 but still illustrating that experienced workforce, to a great extent had a significant influence on the firm's high performance. All the standard deviation scores were below 0.7 and ranged from 0.469 to 0.572 indicating most convergence of the respondents on all the mentioned statements.

The overall mean of 4.58 indicated to a very great extent that the respondents were in agreement that there was a significant and positive influence of strategic human capital on the growth of coffee export processing firms; this is also shown by the overall standard deviation of 0.508 which is not large and represented the most convergence of the respondents on the influence of strategic human capital on the growth of coffee export processing firms. Hence, strategic human capital is very key to the growth of coffee export processing firms.

Specifically, the results of the descriptive statistics displayed in Table 4.7 indicated that 100% of the respondents were in agreement that technical skills and qualifications have a significant and positive influence on the growth of coffee export processing firms. The Likert item mean of 4.68 which is very high indicated an agreement of the respondents at a very great extent, and the standard deviation of 0.469 illustrated that most of the responses were close to each other. All these results confirmed at a very great extent the importance of technical skills and qualifications on the growth of coffee export processing firms.

The findings relate with those of Swart et al., (2005) who emphasized that bridging the performance gap refers to implementing a relevant training intervention for the sake of developing particular skills and abilities of the employees and enhancing employee performance. They further elaborated that training facilitates an organization to recognize that its workers are not performing as expected and thus their knowledge, skills and attitudes needs to be upgraded according to the firm's needs. In other words, organizations should not wait for occurrences of skill and performance gaps to train its employees.
The findings are also supported by Voorde et al., (2010) who highlighted that employee competencies change through effective training programs. It not only improves the overall performance of the employees to effectively perform the current job but also enhances the knowledge, skills and attitude of the workers necessary for the future job, thus contributing to superior organizational performance. By so doing, competencies are developed and this enables employees to implement the job related work efficiently, and achieve firm objectives in a competitive manner.

In regard to the experienced workforce which is considered as a competitive advantage for the firms' high performance, 95.6% of the respondents were in agreement of the role of experienced workforce on the growth of coffee export processing firms while 4.4% were neutral. The Likert item mean of 4.38 which is high, and the standard deviation of 0.572 which is small highlighted the significant influence of an experienced human capital on the growth of coffee export processing firms.

Therefore, in order to create and sustain competitive advantage, organizations must continually improve their business performance. The findings were in agreement with the results of Wright et al., (2007) who highlighted that the resource-based view suggests that human resource systems can contribute to sustained competitive advantage through facilitating the development of competencies that are firm specific.

The results were also in agreement with Brewster et al., (2000) who confirmed that the sustained superior performance of many companies has been attributed to unique capabilities for managing human resources to gain competitive advantage. Appelbaum et al., (2000) emphasized that management has come to accept that people are the critical differentiators of a business enterprise. Other assets of an organization, other than people are passive resources that require human application to generate value. The key to sustaining a profitable company is the productivity of its workforce.
Collins and Clark, (2003) stated that human resource management needs to achieve the following strategic goals in order for the company to gain and sustain competitive advantage among its workforce to:

a) Invest in people through the introduction and encouragement of learning processes designed to increase capability and align skills to organizational needs;

b) Ensure that the organization identifies the knowledge required to meet its goals and satisfy its customers, and takes steps to acquire and develop its intellectual capital;

c) Define the behaviors required for organizational success and ensure that these behaviors are encouraged, valued and rewarded;

d) Encourage people to engage wholeheartedly in the work they do for the organization;

e) Gain the commitment of people to the organization's mission and values.

About the importance of short term trainings, capabilities and skills to market Rwanda coffee, 100% of the respondents were in agreement that short term training were of very great importance to enhance the growth of coffee export processing firms. The Likert item mean of 4.66 which was very high, and the standard deviation of 0.477 which indicated that data were close to the mean, were good indicators of a significant and positive influence of short term trainings, capabilities and skills to market Rwanda coffee on international markets on the growth of coffee export processing firms.

These findings were in agreement with the ones of Evans et al., (2002) who explained that firms were facing increased competition due to globalization, changes in technology and economic environments, and therefore, prompting these organizations to train their employees is one of the ways to prepare them to adjust to their workplace and thus enhance their performance.

Researches by Afshan et al., (2012) highlighted that it should be in every organizations' responsibility to enhance the job performance of their employees and certainly implementation of training and development is one of the major steps that most companies need to achieve. Bearing in mind that human resources are the intellectual property of the firm, Houger (2006) demonstrated that employees prove to be a good
source of gaining competitive advantage, and training is the only way of developing organizational intellectual property through building employees competencies in order to succeed. Moreover, it is also important for organizations to assist their workforce in obtaining the necessary skills needed, and increase commitment.

The findings were also in agreement with the ones of Beardwell et al., (2004) who established that technological developments and organizational change have gradually led some employers to the realization that success relies on the skills and ability of their employees, thus a need for considerable and continuous investment in training.

Results on competence, experience and skills of managers to run the firm indicated that 100% of the respondents agreed that the competence and skills of managers help the firms to move forward and survive in a competitive advantage. The Likert item mean of 4.59 indicated to a very great extent that the respondents were in agreement about this statement. The standard deviation of 0.494 underlined that competence, experience and skills of managers had an influence on the growth of coffee export processing firms.

The findings collaborate with those of Smallbone and Welter (2001) as well as Hisrich and Drnovsek (2002), who realized that managerial competencies as measured by education, managerial experience, start-up experience and knowledge of the industry, positively impact on the growth of coffee export processing firms. The study was in congruence with the findings of a study by Allio (2005), who postulated that managerial competences are very important as everything in the current market environment relies on the individual’s ideas, knowledge, innovation and skills. It is also asserted that the human capital and the managerial competences in an organization are the most important intangible asset, especially in terms of innovation.

Chetty et al., (2006) highlighted that a firm's top management might be an especially crucial factor to be considered. For instance, managerial knowledge about institutions reduces uncertainty and makes expectations about the business opportunities more accurate and realistic. The research by Bertrand and Schoar (2003) is one of the
empirical studies that take a managers' matter instead of firm, industry or market factors view to explain large differences in the performance of firms.

Kaplan et al., (2009) concluded that interpersonal skills of managers matter more for company success. Adams et al., (2005) argued that examining managerial characteristics and the structure of decision-making within firms is an important step towards understanding firm-level volatility. They also highlighted the importance of managerial power for a manager. Adams et al., (2005) emphasized that firms with powerful managers display more variability of performance.

In regard to the statement "hiring and retaining best employees", 100% of the respondents were in agreement that if firms are able to retain highly performing employees who will mentor other employees and show them how they can perform better. The Likert item mean of 4.51 indicated to a very great extent that hiring and retaining best employees would help firms to perform better and reach a sustainable growth rate. The standard deviation of 0.503 was a good indication that data were close to the mean; thus illustrating the influence of hiring and retaining best employees in improving the quality of coffee, and its positive impact on the growth of coffee export processing firms.

This study relates to an analysis by Collins (2001) who highlighted that attracting and retaining talented employees have been one of the prime concerns of organizations. Berthon et al., (2005) indicated that most employers are unsuccessful in their efforts to attract quality workers and retain them long enough to realize a return on their investment. Employers who have high employer brand value are perceived by potential employees as more attractive than those with lower employer brand value.

These results were also in agreement with the results from Backhaus and Tikoo (2004) who stated that attracting skilled people (human resources) is equally as important as acquiring the technological resources that are required to build competitive advantage. Wilden and Gudergan (2010) highlighted that positive consideration of an employer to
employees encourages potential applicants to apply and current employees to stay. Backhaus and Tikoo (2004) added that if an employer fails to deliver their promise, evaluation of their organizations will be negatively affected and may result in increased employees turnover in an organization.

Researchers like Cable and Graham (2000), as well as Lievens et al., (2005) emphasized that the recruitment perspective, remuneration, compensation and benefits, training and development, promotion opportunities and job security represent basic motivations. Other researchers such as Berthon et al., (2005), Lievens and Highhouse (2003), Slaughter and Zickar (2004), and Lievens et al., (2005) highlighted that potential employees' anticipation of these benefits influences how attracted they are to careers. Employees are more likely to view an attribute or benefit as either good or bad if they first consider it to be important.

However, Grzywacz and Dooley (2003) suggested that it is healthier for people to be in jobs that are psychologically good but which may lack certain economic benefits, than to be in jobs that are economically good but lack psychological benefits. Consequently, it is necessary to establish the relative importance for different types of employees, since it is likely that potential employees at different career stages will have different motivations and may value the various aspects of employment differently.

In an open ended question related to intellectual capital and its influence on the growth of coffee export processing firms, 98.9% of the respondents highlighted the importance of intellectual capital in generating and sustaining organizational competitive advantage, 1.1% was in disagreement. They added that intellectual capital is about knowledge skills and capabilities and experience.

The study was in agreement with the findings by Seviby (2008) who had a similar approach and argued that people should be seen as the only true agents in business; all tangible physical products, assets as well as intangible relations, are results of human action and depend ultimately on people for their continued existence. The findings by
Cohen and Kaimnenakis (2007) revealed that managerial skills is an important element of intellectual capital which has an impact on growth.

The research by Bontis et al., (2000) emphasized that the importance of intellectual capital on organizational success has become crucial in the context of what is known as the knowledge-based economy, which is characterized by a rapid expansion of knowledge-intensive industries and by a marked increase in the importance of creating and exploiting knowledge and information in all sectors of the economy.

The findings also concurred with those of Marr (2008) who postulated that intellectual capital should be seen as key factors for the company's success and important levers for value creation. These results are consistent with the ones of Fang and Hsu (2010) who revealed that intellectual capital is becoming a crucial factor for a firm's long-term profit and performance that identify their core competence as invisible assets rather than visible assets.

Scholars like Ruta (2009), Yang and Lin (2009) argued that intellectual capital development is the hidden value that is not reflected in organizational financial statements but has the potential to contribute to organizational profitability and competitive advantage. Garvey (2010), Wang (2005) and Van Den Bosch et al., (2007) argued that employee knowledge and capabilities are the important sources of innovation. This may entail institutionalizing continuous professional development programs and the development of an effective knowledge management system to capture and retain the knowledge of their workers. Cohen and Kaimnenakis (2007) also found out that managerial skills is an important element of intellectual capital in SMEs growth.

In an open ended question related to whether experience of coffee export processing firms have an influence on the growth of coffee export processing firms, 98.9% of the respondents were in agreement that firms with much experience perform better than those with no experience. They highlighted that as coffee export processing firms gain
more experience, they know what their customers want and other firms that they are competing with, then invest in innovation and technological activities which will enhance their processing methods.

Those firms will also explore more international markets opportunities and seek markets which offer a better price of the exported quality coffee. Out of the total number of the respondents, 1.1% were convinced that experience of coffee export processing firms does not matter. They mentioned that if firms have enough financial resources no matter how experienced they are, they will be able to do strategic networking and get better markets.

Similar results have been obtained by Brenton et al., (2010) who confirmed that experience matters in all business activities. These results also complement the findings by Petit (2007) who acknowledged that experience matters. The presumption that employee experience and more especially managerial experience affects firm's performance has also been noted by several scholars like Kor & Sundaramurthy (2009) and, Bach & Smith (2007).

Most empirical studies dealing with managerial experience like that of Klepper (2001), Agarwal et al., (2004), Filatotchev et al., (2009) examined the impact of founders experience on firm's performance and survival rates, and they typically indicated positive effects between experience and firm's performance. Shane (2000), Helfat and Liebernann (2002) also highlighted that as experienced employees are likely to have better insights into future business opportunities, threats, niche markets, products, technologies or market development, managerial experience is expected to be positively related to innovative activity and its performance.

**4.6.5. Growth of Coffee Export Processing Firms**

The study investigated whether sales growth and profits were determinants of the growth of coffee export processing firms.
Table 4.9. Descriptive Statistics for Growth of Coffee Export Processing Firms

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth driven by the level sales growth and firms' profits</td>
<td>56</td>
<td>33</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>4.45</td>
<td>0.687</td>
</tr>
<tr>
<td>Efficient allocation of firms' financial resources to enhance profits</td>
<td>50.4</td>
<td>46.4</td>
<td>3.2</td>
<td>0</td>
<td>0</td>
<td>4.47</td>
<td>0.565</td>
</tr>
<tr>
<td>Striving to increase the volume of specialty coffee</td>
<td>47.2</td>
<td>38.5</td>
<td>14.3</td>
<td>0</td>
<td>0</td>
<td>4.33</td>
<td>0.716</td>
</tr>
<tr>
<td>Endeavor to produce roasted coffee with high price premium</td>
<td>70.3</td>
<td>22</td>
<td>7.7</td>
<td>0</td>
<td>0</td>
<td>4.63</td>
<td>0.626</td>
</tr>
<tr>
<td>Setting up production incentives for the best coffee beans</td>
<td>58.2</td>
<td>36.3</td>
<td>4.4</td>
<td>1.1</td>
<td>0</td>
<td>4.52</td>
<td>0.639</td>
</tr>
<tr>
<td>Investing in modern and highly performing equipments for coffee processing</td>
<td>53.8</td>
<td>38.5</td>
<td>6.6</td>
<td>0</td>
<td>1.1</td>
<td>4.44</td>
<td>0.516</td>
</tr>
<tr>
<td>Regular use of recommended fertilizers and pesticides for coffee growing</td>
<td>63.7</td>
<td>33</td>
<td>3.3</td>
<td>0</td>
<td>0</td>
<td>4.6</td>
<td>0.308</td>
</tr>
<tr>
<td>Regular trainings of various stakeholders in the coffee value chain</td>
<td>69.2</td>
<td>29.7</td>
<td>1.1</td>
<td>0</td>
<td>0</td>
<td>4.68</td>
<td>0.492</td>
</tr>
</tbody>
</table>

Table 4.9 provides the results of the study on the growth of coffee export processing firms. The overall mean of 4.52 indicated the degree of agreement of the respondents to a very great extent that sales growth and profits were key determinants of the growth of coffee export processing firms. The overall standard deviation of 0.636 indicated the most convergence of the respondents on this statement, thus an indication that the main goal of organizations is to make profit and survive in competitive markets.

On all aspects of the growth of coffee export processing firms, the Likert item mean scores were high ranging from 4.33 to 4.68 while the standard deviations were small and ranged from 0.308 to 0.716. These were good results indicating that sales growth and profits are good indicators of the growth of coffee export processing firms. Firms' growth is often closely associated with firm overall success and survival and it has been used as a simple measure of success in business.
A growth-oriented firm is not only able to attract the most talented executives but it would also be able to retain them. Firms' growth leads to higher profits and increase in shareholders’ value. However, for growth to be realized and be sustainable, the combination of resources, distinctive capabilities, distinctive competencies, and attributes must lead to competitive advantage thus outperforming competitors.

Muia, (2011) found out that firms can be encouraged to embrace growth strategy especially when pursuing the profitability and wealth objectives. Mengistie, (2012) established that labor quality, asset, productivity, and leverage positively affect growth. Mulunga, (2010), found out that lack of capital and high operational costs negatively affected the growth of MFIs in Namibia.

Maina, (2011) found out that information technology, funds, technical skills and market research positively affect growth of MFIs. Much research effort has been targeted particularly at investigating the factors affecting firm growth, but to date there is no comprehensive theory to explain which firms will grow or how they will grow (Garnsey & Heffernan, 2011). Thus, there is a compelling need to explore the strategic management drivers in Rwanda that can successfully propel firms to growth, sustainability, and prosperity.

The lowest Likert item mean was 4.33, where 85.7% of the respondents agreed that there was a need to increase the volume of specialty coffee which will attract high price, and 14.3% were moderate. The standard deviation was 0.716, indicating more convergence of the respondents on this point.

Lewin et al., (2004) stated that coffee qualifies as specialty coffee if it is notably good and has a distinctive character in the cup and therefore, a specialty coffee premium is received. Cruz and Kilger (2002) clarified that to obtain specialty coffee, besides being fully washed, a careful selection of coffee cherries is needed. Wilson (2006) highlighted that this can be done through disseminating awareness of marketing and coffee processing methods appropriate for high quality coffee; improving cultivation, storage
and transportation practices, and through protection against pests, diseases and contamination during storage.

Kathurima et al., (2009) indicated that the term specialty coffee was originally used to classify the market niche where coffees are valued for their distinctive individual characteristics rather than their ability to be blended into a standardized product. They added that while evaluating specialty coffee, sensory attributes should be evaluated which include aroma, flavor, after taste, acidity, uniformity, sweetness and overall quality.

Daviron and Ponte (2005), Pendergrast (2010) and Ponte (2002) define specialty coffee as those distinguished from industrial blends by their quality, or added flavorings and special packaging. Petkova (2006) stated that, as time progressed and specialty coffee became more of a standard, high quality coffee in the world's largest producer would appear somewhat less rare and price differences would diminish.

For the statement "Endeavor to produce roasted coffee with high price premium", 92.3% of the respondents were in agreement that roasted coffee brings a high price premium which almost double the price of fully washed coffee, and 7.7% were moderate. The Likert item mean was 4.67 which confirmed at a very great extent that the volume of roasted coffee which is currently very low should be increased in order to bring more earnings to coffee export processing firms, and reach a high profit. The standard deviation was 0.626, indicating most convergence of the respondents on this point.

Donnet et al., (2008) highlighted that coffee quality contributes to high price. Roasting coffee transforms the chemical and physical properties of green coffee beans into roasted coffee products. The roasting process is what produces the characteristic flavor of coffee by causing the green coffee beans to change its taste. This is done by adding new features to existing products which finally increase sales (Guariso et al., 2012). Some customers might not have purchased Rwanda coffee in the past because those features found in roasted coffee were missing.
The Likert item statement "Growth driven by sales growth and firms' profits " had the Likert item mean of 4.45 which revealed that there was an agreement at a great extent that the growth of coffee export processing firms was driven by both sales growth and profits. The standard deviation of 0.687 indicated most convergence of the respondents on this statement because 89% of the respondents confirmed this statement while 11% were neutral. Firms which are more profitable, more productive, grow faster and survive longer.

The findings concurred with the study by Monday et al., (2015) that illustrated that firms which engage in strategic management are most likely to have higher sales growth, higher profit margin, higher return on assets, and higher employees’ growth (Monday et al., (2015)). A study by Fama and French (2006) indicated that the primary objective of establishing most companies is gaining profit or financial reasons.

The target of a well organized firm is to maximize value creation while minimizing costs, where all activities of a company link efficiently together (Ireland et al., 2009). Murekezi (2003) stated that targeting an attractive quality is considered as one of the marketing strategies used by companies in order to gain a number of competitive advantages over others, and thus gain profits.

Giovannucci et al., (2004) found out that the level of profitability is affected by high cost of labour, processing methods, low yield and availability of markets. The findings also emphasized that managers need to estimate future revenues, costs, and profits to help them plan and monitor operations. They need to identify the levels of operating activity needed to avoid losses, achieve targeted profits, plan future operations, and monitor organizational performance.

In regard to "efficient use of firms' financial resources to enhance profits", 96.8% of the respondents were in agreement that coffee export processing firms should efficiently use their financial resources and invest in coffee processing and expand their international markets in order to get markets which offer high prices. Among the total number of the
respondents, 3.2% were neutral. The Likert item mean was 4.47 indicating an agreement of the respondents to a very great extent that using financial resources in a profitable way would allow coffee export processing firms to grow faster. Firms should see how they can reduce their operational costs which have a negative effect on their level of profit. The standard deviation of 0.565 is an indication of most convergence of the responses from the respondents.

The findings relate to the ones of Greenaway et al., (2007) who stated that there is a growing interest in the trade literature on the importance of access to finance for the success of exporters on international markets. Various scholars like Manova (2011), Berman and Hericourt (2010) highlighted that given the liquidity required to afford the costs of entering export markets and adapting products to different consumers' needs, access to finance seems to be relevant for firms to enter and remain on international markets. So to become exporters or gain access to new international markets, firms must have access to enough liquidity to afford different costs related to coffee exports. Growth in the number of markets served, in the variety of products offered, and in the technologies that are being used to provide goods frequently lead to improvements in a firm’s competitive ability (Pearce & Robinson, 2005).

The Likert item statement "Setting up production incentives for the best coffee beans", 94.5% of the respondents were in agreement that in order to improve the production at the farm level, coffee export processing firms should provide incentives to coffee farmers in order to motivate them to produce best coffee beans, 4.4% were neutral while 1.1% responded at a low extent. This will increase the volume of coffee with high quality, hence enhancing the sales growth and profits. The Likert item mean was 4.52 indicating an agreement of the respondents at a very great extent, and the standard deviation was 0.639 indicating that most of the responses provided by the respondents were very close to each other.

The findings relate to the ones by Murekezi (2009) who indicated that when farmers receive high prices for their crops, they are more likely to bring excellent cherries, which helps yield and quality of the final product. In order to improve the quality and quantity of coffee beans that farmers bring at coffee washing stations, farmers have to be given
incentives. This implies not only more efforts in providing extension services and facilitating transport to the washing stations, but above all paying a price premium for the good quality of coffee beans. Currently, most washing stations do not have a system in place to pay variable prices to different lots of coffee beans.

Murekezi (2003) stated that the goal is to increase farmers' participation and contribute to a positive change for better coffee quality. Incentives to coffee farmers is a motivating factor for farmers to apply the improved techniques, selective picking, processing and storing techniques, application of better technology which will help farmers to produce better quantity and quality of coffee. The higher the welfare level, the higher coffee quality produced by coffee farmers. In addition, farmers' experience in coffee farming is a determining factor in coffee quality improvement. Therefore, experienced farmers should be highly motivated to continuously improve the quality of coffee because they have good knowledge of coffee farming and its quality. If coffee export processing firms can provide sufficient price incentives to better coffee qualities, the farmers will produce a good quantity and quality of cherries.

In regard to "Investing in modern and highly performing equipments for coffee processing", respondents indicated that 92.3% were in agreement that coffee export processing firms need to invest in modern and highly performing equipments for coffee processing because the quality of coffee should be controlled at every stage of coffee processing, 6.6% were neutral while 1.1% agreed at a very low extent. The Likert item mean was 4.44 which indicated that the respondents agreed at a great extent that the modern equipments were very necessary. The standard deviation was 0.516 which was an indication of most convergence of the respondents on this statement.

Ferreira et al., (2013) stated that necessary equipments are needed at every stage of coffee processing. Adugna et al., (2008), and Kufa (2012) indicated that there seemingly are significant opportunities for productivity growth. Adugna et al., (2008) also highlighted that increasing support at the farm level and training towards higher adoption of improved technologies, such as mulching, pruning, rejuvenation of trees,
planning of improved varieties, and modern input use, have been shown to be associated with higher productivity and could lead to higher local supply and, therefore, higher quantities of coffee exported. Rwanda uses wet coffee processing method which consists of removing pulp and skin from fresh cherries using a pulping machine.

Gonzalez-Rios et al., (2007) stated that a new technology called ecological processing was developed in Colombia and Brazil, and it utilizes little water, pulps coffee and removes mucilage by mechanical processes without the fermentation stage. After removal of the pulp, the green coffee beans are dried, cleaned, packed and stored until they are exported, and if required, until it can be roasted. Roa et al., (2012) highlighted that it is during the roasting that the beans acquire the flavour and color of the finished coffee. They also reported that when roasted, the coffee beans lose 15-20% of their weight, but increase up to 25% in size. All these processes require adequate machines and plant for coffee processing.

The Likert item statement "Use of recommended fertilizers and pesticides for coffee growing" indicated that 96.7% of the respondents agreed at a very great extent that in order to get a good production, there is need for monitoring coffee plantations, and utilizing the recommended fertilizers and pesticides, and 3.3% were neutral. The Likert item mean of 4.6 was a good indication that responses from the respondents were very close to each other. This was also indicated by the standard deviation of 0.308 which is small. Indeed, the smaller the standard deviation, the better.

The study was in agreement with Luong and Tauer (2006) who reported that investment in the coffee sector is risky as the coffee harvest may spoil because of diseases, most notably coffee leaf rust. Besides, Wintgens (2009) advised that in order to produce good quality coffee beans, fertilizer needs to be applied, and the coffee cherries need to be carefully selected. The use of each type of fertilizer depends on the soil conditions.

Thus, Naidu and Raghuramulu (2000) recommended that in order to produce coffee of good quality, favorable natural conditions must be accompanied by adequate use of
inputs and good farming practices. Good coffee also needs careful processing methods. D'haeze et al., (2003) confirmed that the use of irrigation, balanced with the use of high levels of chemical fertilizer will create world-class yields of coffee. Continued success requires relatively the use of chemical fertilizer and investment in local organic fertilizer.

In regard to "Regular trainings of various stakeholders in the coffee value chain", 98.9% of the respondents were in agreement at a very great extent that there is a need for regular trainings of staff from coffee export processing firms, coffee farmers, and any other stakeholders performing the work related to coffee processing and exports, and 1.1% were neutral about this statement. The Likert item mean was 4.68 indicating an agreement at a very great extent that in order to achieve a sustainable growth of coffee export processing firms, regular trainings were very much needed.

The findings were in agreement with Bentley et al., (2000), who emphasized that delivering high quality cherries requires specialized skills; thus, skills development at all levels of the value chain is of high importance. They continued by saying that while higher prices may incentivize farmers to invest additional time and effort on their farms, there is still a lack of knowledge and expertise around how to increase quality production. It is therefore clear that it is necessary to work directly with farmers to increase yields, thus, the importance of strengthening the capacity at production level by training and sensitizing farmers.

Parrish et al., (2005) highlighted that by collaborating with multiple stakeholders, coffee export processing firms would get better quality of coffee. The key problem arising for individual farmers is the lack of technical information to help them make decisions on their production. Parrish et al., (2005) highlighted that this will help coffee farmers form cooperatives and will advise cooperative leaders on effective management and governance practices.
Binam et al., (2003) stated that the pathways for formal technical information to reach coffee farmers are complex and fragmented and not practically available to many farmers. Therefore, through continuous learning and building new sets of tools and abilities, coffee export processing firms will be able to strengthen their local capacities and provide a better service to their producers. Ruben and Zuniga (2011) indicated that in order to increase yields at the farm level, farmers should be trained on good agricultural practices to increase productivity and the quality of cherries.

Farmers should also be trained on improved coffee processing methods for consistency in quality coffee. For this to happen, District agronomists should play an important role in improving the quality and yields of coffee. Brando (2014) confirmed that training to enhance skills and opportunities will enable farmers to do better. Kimani et al., (2002) also highlighted that the farmer participatory approach will help to build farmers' capacities to make their own crop management decisions.

The secondary data collected from NAEB indicates the volume and revenues of coffee exports from 2014/2015 to 2016/2017 as shown in the following Table 4.10:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume of Coffee Exports in Kg</td>
<td>16,529,690</td>
<td>18%</td>
<td>19,560,636</td>
<td>-5.4%</td>
<td>18,439,111</td>
</tr>
<tr>
<td>Revenues of Coffee Exports (in USD)</td>
<td>64,029,171</td>
<td>-5%</td>
<td>60,718,061</td>
<td>-3.4%</td>
<td>58,526,023</td>
</tr>
</tbody>
</table>

Data in Table 4.10 indicated that the volume of coffee exports for 2014/2015 was 16,529,690kg while the volume of coffee exports for 2015/2016 was 19,560,636kg and the volume of coffee exports for 2016/2017 was 18,439,111kg. This indicated that there was an increase of the volume of coffee exports from 2014/2015 to 2015/2016 by 18%.
while there was a decrease of the volume of coffee exports from 2015/2016 to 2016/2017 by 5.4%.

The revenues for coffee exports were 64,029,171$ USD in 2014/2015 and 60,718,061$ USD in 2015/2016 while in 2016/2017 the revenues for coffee exports were 58,526,023$ USD. This pointed out that there was a decrease of the revenues of coffee exports from 2014/2015 to 2015/2016 by 5% while from 2015/2016 to 2016/2017, there was a decrease of the revenues of coffee exports by 3.4%.

Growth is indicated by the increase of revenues and sales growth over time. O’Gorman (2001) notes that successful strategies are characterized as high growth businesses. High growth businesses in turn are competitive on product quality and price. Coffee export processing firms therefore need to develop and apply strategies which will make their businesses grow and survive in a competitive environment (Kiraka et al., 2013).

These strategies involve diversifying products to meet new market demand, introducing new processes to improve the productivity and the quality of the product to be produced, developing or applying new marketing techniques to expand sales opportunities, and incorporate new forms of management systems and techniques to improve operational efficiency (Porter & Stern, 2001). According to Mbiti et al., (2015), growth means increase in sales turnover, increase in profitability levels, increase in number of employees, production lines, services and total capitalization.

4.7. Diagnostic Tests of Assumptions of Regression Model

This section highlights diagnostic tests of assumptions of regression model such as Kolmogorov-Smirnov test for normality, Skewness and Kurtosis normality test and Multi-collinearity test.
4.7.1. Testing for Normality

The most fundamental assumption in regression analysis is normality of the residuals in the dependent variable so as to enable generalization of the results of analysis beyond the sample collected (Kimtai, 2014). Some pre-requisite tests like normality tests were done before data was analyzed further so as to ensure that the variables used met the required criteria and gave reliable results.

An assessment of the normality of data is a prerequisite for many statistical analyses such as ANOVA model analysis. This is because normality is an underlying assumption in parametric testing, especially in ordinary least square estimates. Normality can be tested using either graphically (visual inspection), numerically (statistical tests) or both (Razali & Wah, 2011). However, statistical tests are better than the visual inspection because they make objective judgment of normality. As a result, this study used statistical tests to check normality. The normality was conducted using Kolmogorov-Smirnov, skewness and kurtosis tests.

A. Kolmogorov-Smirnov Test for Normality

The Kolmogorov-Smirnov test was used to test the normality of the dependent variable.

<table>
<thead>
<tr>
<th>Standardized Residual</th>
<th>Kolmogorov-Smirnov</th>
<th>Df</th>
<th>Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.033</td>
<td>308</td>
<td>.200*</td>
<td></td>
</tr>
</tbody>
</table>

*This is a lower bound of the true significance

The findings of Kolmogorov-Smirnov normality test for the standardized residuals displayed that the p-value was 0.200 which was greater than 0.05, hence extrapolated as data being normally distributed; the data on strategic management drivers and growth of coffee export processing firms did not deviate from the normal distribution. As a result, it would be statistically admissible to use statistical tests and procedures that assume normality.
of the data of variables; in this study regression and correlation analysis. Thus, data are normally distributed.

**B. Skewness and Kurtosis Normality Test**

One of the ways to assess the normality of data distribution is by examining its skewness and kurtosis (Kline, 2005). Assessment of normality in the data is often a conventional assumption in the estimation process (Bai & Ng, 2005). Data distribution with either a highly skewed nature or with a high kurtosis is an indicative of non-normality which has random effects on specification or estimation (Kilian & Demiroglu, 2000). This non-normality may exist due to the presence of outlier in the data set. As Tabachnick and Fidell (2007) argued, an outlier is a case with such an extreme value on one variable (a univariate outlier) or on a combination of scores on two or more variables (multivariate outlier) that distort statistics.

### Table 4.12. Skewness and Kurtosis Normality Test

<table>
<thead>
<tr>
<th></th>
<th>Strategic Value Addition</th>
<th>Product and Markets Diversification</th>
<th>Business Environment</th>
<th>Strategic Human Capital</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>Skewness</td>
<td>-.062</td>
<td>-.358</td>
<td>-.569</td>
<td>-.076</td>
<td>-.184</td>
</tr>
<tr>
<td>Std. Error of</td>
<td>.169</td>
<td>.169</td>
<td>.169</td>
<td>.169</td>
<td>.169</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-.246</td>
<td>-.035</td>
<td>.08</td>
<td>.004</td>
<td>-.208</td>
</tr>
<tr>
<td>Std. Error of</td>
<td>.338</td>
<td>.338</td>
<td>.338</td>
<td>.338</td>
<td>.338</td>
</tr>
</tbody>
</table>

Hair et al., (2011) suggested that for a distribution to be considered normal, the Skewness value must be within ±2.00 standard error of Skewness and within ±3.00 standard error of Kurtosis. The normality test results depicted on table 4.2 are in agreement with this suggestion. Skewness and Kurtosis had standard errors for both independent and dependent variables between -1 and +1, which were within the correct
range. The study data of the influence of strategic management drivers on the growth of coffee export processing firms was therefore normally distributed and could be subjected for further analysis.

4.7.2. Test for Multicollineality

Multicollinearity was tested by computing the Variance Inflation Factors (VIF) and its reciprocal, called the Tolerance. A situation in which there is a high degree of association between independent variables is said to be a problem of multicollinearity which results into large standard errors of the coefficients associated with the affected variables. According to Mugenda and Mugenda (2012), multicollinearity 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. Multicollinearity can also be solved by deleting one of the highly correlated variables and re-computing the regression equation.

<table>
<thead>
<tr>
<th></th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Value Addition</td>
<td>.779</td>
<td>1.298</td>
</tr>
<tr>
<td>Product and Markets Diversification</td>
<td>.527</td>
<td>1.936</td>
</tr>
<tr>
<td>Business Environment</td>
<td>.623</td>
<td>1.618</td>
</tr>
<tr>
<td>Strategic Human Capital</td>
<td>.948</td>
<td>1.059</td>
</tr>
</tbody>
</table>

From Table 4.13, the tolerances are all above 0.2. If a variable has a co-linearity tolerance below 0.2, it implies that 80% of its variance is shared with some other independent variables. All tolerance figures were above .20 as strategic value addition had a tolerance of 0.779, product and markets diversification had a tolerance of 0.527, business environment had a tolerance of 0.623, and strategic human capital had a tolerance of 0.948; an indication that there was absence of multicollinearity.
The definition of Variance Inflation Factor (VIF) by Cohen et al., (2013) is that it provides an index of the amount that the variance of each regression coefficient is increased relative to a situation in which all of the predictor variables are uncorrelated, and suggest a VIF of 10 or more to be the rule of thumb for concluding that VIF to be too large hence not suitable. Thus, the Variance Inflation Factors (VIFs) are all below 10; strategic value addition had a VIF of 1.298, product and markets diversification had a VIF of 1.936, business environment had a VIF of 1.618 and strategic human capital had a VIF of 1.059; hence all variables are suitable. Since multicollinearity is associated with VIF above 5 and tolerance below 0.2, the variables did not exhibit multicollinearity and therefore acceptable for data collection and analysis.

4.8. Inferential Statistics and Hypothesis Testing

Inferential statistics always involves the probability distribution for a statistic. It is therefore easier to examine this distribution using a specific statistic than it is to treat it in general terms.

4.8.1. Strategic Value Addition Measures

The linear regression analysis indicates the relationship between independent variable which is the strategic value addition and the dependent variable which is the growth of coffee export processing firms. The analysis is done using the research hypothesis tested as follows:

Hypothesis one: H$_{a1}$: There is a significant influence of strategic value addition on the growth of coffee export processing firms in Rwanda.

**Table 4.14. Regression Results for Strategic Value Addition**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.937$^a$</td>
<td>.877</td>
<td>.876</td>
<td>.182</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Strategic value addition
R-squared also known as the coefficient of determination \( (R^2) \) is a statistical measure of how close the data are to the fitted regression line; the higher the R-squared, the better the model fits your data. Therefore, the results in table 4.41 indicate that there is a strong positive influence between strategic value addition and the growth of coffee export processing firms with \( R=0.937 \) and \( R^2=0.877 \). This means that 87.7% of the variation or change in the growth of coffee export processing firms is explained by a unit change in strategic value addition. The remaining 12.3% unexplained variation is due to other variables outside the regression model. Table 4.42 indicates the results of the first specific objective, using the ANOVA regression model: \( GCEPF=\beta_0+\beta_1SV_{A}+\epsilon \)

**Table 4.15. ANOVA results for strategic value addition measures**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>21.175</td>
<td>1</td>
<td>21.175</td>
<td>637.429</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>2.957</td>
<td>8</td>
<td>.033</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>24.132</td>
<td>9</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Strategic value addition
b. Dependent Variable: growth of coffee exporting processing firms

The results in table 4.15 show that the P-value (0.000) is less than the level of significance (0.05), hence, this confirms that strategic value addition has a positive influence on the growth of coffee export processing firms in Rwanda. This was also evidenced by F-statistic (F=637.429) which is far greater than the P-value (0.000); hence a further confirmation that strategic value addition positively and significantly influences the growth of coffee export processing firms in Rwanda. Furthermore, the residual value (2.957) is less than the regression value (21.175) which once again implies that strategic value addition positively influences the growth of coffee export processing firms in Rwanda.
The study findings are in support of Pomeroy and Dalton (2005) who stated that value is added to a product depending on the requirements of different markets.

Table 4.16. Coefficients showing strategic value addition measures

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.808</td>
<td>.151</td>
<td></td>
<td>5.361</td>
</tr>
<tr>
<td>Strategic value addition</td>
<td>.832</td>
<td>.033</td>
<td>.937</td>
<td>25.247</td>
</tr>
</tbody>
</table>

a. Dependent Variable: growth of coffee exporting processing firms

Using the linear regression analysis, the strategic value addition was regressed to find out how it influences the growth of coffee export processing firms in Rwanda. With Beta=0.937, t-values=25.247 and sig=0.000, this means that when strategic value addition increased by one (1) unit, the growth of coffee export processing firms increased by 0.937. Therefore, the model becomes as follows: GCEPF=0.808+0.832SVA. The following correlation shows the relationship between the strategic value addition and the growth of coffee export processing firms in Rwanda.

The study findings corroborate with those of Kim and Lalancette (2013) who stated that value addition refers to product improvement as a result of growth in knowledge, abilities, skills and other attributes the employees have gained due to experience in the respective field over time. Moreover, market information on product and process requirements is key to being able to produce the right value for the right market (Trienekens, 2011).
Table 4.17. Correlations showing strategic value addition measures

<table>
<thead>
<tr>
<th></th>
<th>growth of coffee exporting processing firms</th>
<th>Strategic value addition</th>
</tr>
</thead>
<tbody>
<tr>
<td>growth of coffee</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>exporting processing</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>firms</td>
<td>N</td>
<td>91</td>
</tr>
<tr>
<td>Strategic value addition</td>
<td>Pearson Correlation</td>
<td>.937**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>91</td>
</tr>
</tbody>
</table>

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

The correlation coefficient measures the strength and direction of a linear relationship between two variables on a scatter plot. Thus, from the results in table 4.44, Pearson correlation coefficient of $r=0.937$ and a significance $p$-value of 0.000 ($\text{sig}=0.000$) indicate that there is a strong positive linear relationship between the strategic value addition and the growth of coffee export processing firms. This implies that an increase in strategic value addition leads to an increase in the growth of export processing firms. Thus, the first alternative hypothesis which indicates that there is a significant influence of strategic value addition on the growth of coffee export processing firms in Rwanda, is accepted.

The findings concurred with the study by Kotler (2012) that stated that every business world over attempts to increase the value of its products by focusing on anything that might improve the product outlook in design or form, with the ultimate goal of making it more attractive to its customers and therefore, generating more revenue. With the continuous shifting to a global economy, the international market for value-added
products is growing. Market forces have led to greater opportunities for product differentiation and added value to raw commodities because of increased consumer demands in order to improve their productivity and technological advances that enable producers to produce what consumers desire (Biegon, 2009).

Tecee (2010) observes that gaining, maintaining or improving competitive advantage requires a firm's activities, resources and systems to be arranged to either reduce overall cost or add most value for least cost. The key tools of value addition that generate competitive advantage arise from careful analysis of value chain activities through cost advantage and differentiation (Pride & Ferrel, 2012).

4.8.2. Product and Markets Diversification Measures

The following linear regression analysis indicates the relationship between the independent variable which is product and markets diversification and the dependent variable which is growth of coffee export processing firms in Rwanda. By testing the second alternative hypothesis, the results are as follows:

Hypothesis 2: \text{H}_a^2: \text{There is a significant influence of product and markets diversification on the growth of coffee export processing firms in Rwanda.}

Table 4.18. Regression results for product and markets diversification measures

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>.927\textsuperscript{a}</td>
<td>.860</td>
<td>.858</td>
<td>.195</td>
</tr>
</tbody>
</table>

\textsuperscript{a} Predictors: (Constant), Product and markets diversification

The results in table 4.18 indicate that product and markets diversification has a significant positive influence on the growth of coffee export processing firms in Rwanda with R=0.927 and R\textsuperscript{2}=0.860. The coefficient of determination (R\textsuperscript{2}) indicates that explanatory power of the independent variable is 0.860. This means that 86% of the variation or change in growth of coffee export processing firms is explained by a unit
change in product and markets diversification. The remaining 14% is explained by other variables outside the regression model. Table 4.46 illustrates the results of the second specific objective of the study, using ANOVA. The ANOVA regression model is \( GCEPF = \beta_0 + \beta_2 PMD + \varepsilon \)

The findings concurred with the ones by Charles (2012) who explained that product diversification is the growth engine for markets in terms of market size, and consumer mix world over. Product diversification implies several product lines are developed for same or different markets and customers which ultimately increase revenues to the business. One of the ways to penetrate the market could be by finding new customers for your product or by getting current customers to use more of your products (Free Management, 2015).

Table 4.19. ANOVA results for product and markets diversification measures

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>20.755</td>
<td>1</td>
<td>20.755</td>
<td>546.939</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>3.377</td>
<td>8</td>
<td>.038</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24.132</td>
<td>9</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Product and markets diversification
b. Dependent Variable: growth of coffee exporting processing firms

The ANOVA results shown in table 4.46 indicate that the sig value (0.000) is less than the level of significance (0.05), and F-statistic (F=546.939) is greater than the P-value (0.000), hence this is an indication that product and markets diversification significantly and positively influences the growth of coffee export processing firms in Rwanda. Furthermore, the residual value (3.377) is less than the regression value (20.755) which
means that product and markets diversification positively influences the growth of coffee export processing firms in Rwanda. Table 4.47 of coefficients shows the relationship between product and markets diversification and the growth of coffee export processing firms in Rwanda.

Table 4.20. Coefficients of product and markets diversification measures

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.974</td>
<td>.156</td>
<td>6.262</td>
<td>.000</td>
</tr>
<tr>
<td>Product and markets diversification</td>
<td>.797</td>
<td>.034</td>
<td>.927</td>
<td>23.387</td>
</tr>
</tbody>
</table>

a. Dependent Variable: growth of coffee exporting processing firms

Using linear regression analysis, product and markets diversification were regressed to find its influence on the growth of coffee export processing firms in Rwanda. According to Beta=0.927, t-values=23.387 and sig=0.000, when product and markets diversification increases by one (1) unit, the growth of coffee export processing firms increases by 0.927. Therefore, the model becomes as follows: GCEPF=0.974+0.797PMD
Table 4.21. Correlations of product and markets diversification measures

<table>
<thead>
<tr>
<th>Variables</th>
<th>growth of coffee exporting processing firms</th>
<th>Product and markets diversification</th>
</tr>
</thead>
<tbody>
<tr>
<td>growth of coffee exporting processing firms</td>
<td>Pearson Correlation 1</td>
<td>.927**</td>
</tr>
<tr>
<td>Product and markets diversification</td>
<td>Pearson Correlation .927**</td>
<td>1</td>
</tr>
</tbody>
</table>

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

The results in table 4.21 with Pearson correlation coefficient $r = 0.927$ and a significance p-value 0.000 (sign=0.000) indicate that there is a strong positive linear relationship between product and markets diversification and the growth of coffee export processing firms in Rwanda. The directional change in the independent variable (product and markets diversification) leads to the same directional change in the dependent variable (grow of coffee export processing firms). Thus, the second alternative hypothesis which states that there is a significant influence of product and markets diversification on the growth of coffee export processing firms in Rwanda, is accepted.

Market information on product and process requirements is key to being able to produce the right products; for the right market (Trienekens, 2011). In this regard, finding value adding opportunities is not only related to the relaxation of market access constraints in existing markets, but also to finding opportunities in new markets and in setting up new market channels to address these markets.
Baldwin and Harrigan (2007), Kang (2006), Campbell and Hopenhayn (2005) have shown that the market size matters for exporting a large number of fully washed coffee. To better compete on regional and international markets, coffee export processing firms should export coffee to identified destinations; firms can learn about the regional and international markets they should export to, acquire the required capabilities to export to new destinations, and innovate to produce better products enabling them to compete on the regional and international markets.

If Rwanda through export processing firms can identify the missing features and add them to its existing products, the size of its targeted market may increase. The price for roasted coffee almost doubles that of fully washed coffee (Gresser & Tickell, 2002). Coffee export processing firms should therefore be able to diversify its products without the development costs of a completely new product.

4.8.3. Business Environment Measures

The following linear regression analysis determines the relationship between the independent variable which is business environment and the dependent variable which is growth of coffee export processing firms.

Hypothesis 3: \( H_{a3} \): There is a significant influence of business environment on the growth of coffee export processing firms in Rwanda.

**Table 4.22. Regression results for business environment measures**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>.835a</td>
<td>.696</td>
<td>.693</td>
<td>.287</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Business environment
According to the results in table 4.22, business environment has a positive influence on the growth of coffee export processing firms with R=0.835 and $R^2= 0.696$. The coefficient of determination ($R^2$) indicates that explanatory power of the independent variable is 0.696. This means that 69.6% of the variation in growth of coffee export processing firms is explained by a unit change in business environment. The remaining 30.4% unexplained variation is due to other variables outside the regression model. The ANOVA regression model is $GCEPF=\beta_0+\beta_3BE+\epsilon$

For firms to deliver efficiently, they must learn to appreciate the present challenges and cope with the increasingly competitive environment which calls for firms to rethink strategically (Pearce & Robinson, 2005). Globalization of the world economy, especially in the area of trade, has made the world more interconnected and integrated (Ahn, 2011).

According to Onwuka and Eguavoen (2007) it will be difficult for a corporation to become a significant player in the global market place without an extensive use of information and communication technology. Technological innovation includes the development of new business methods to achieve desired objectives. ICT will lead to high organizational performance which is characterized by high financial income, continuous sustainable innovations, satisfied customers and a motivated human resource (Epstein, 2004).

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>16.808</td>
<td>1</td>
<td>16.808</td>
<td>204.241</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>7.324</td>
<td>89</td>
<td>.082</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24.132</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- a. Predictors: (Constant), Business environment
- b. Dependent Variable: growth of coffee exporting processing firms
ANOVA results shown in table 4.23 indicate that the sig value (0.000) is less than the level of significance (0.05), and the F-statistic (F=204.241) is far greater than the P-value (0.000), hence a confirmation that business environment significantly has an influence on the growth of coffee export processing firms in Rwanda. Furthermore, the residual value (7.324) is less than the regression value (16.808) which means that business environment positively influences the growth of coffee export processing firms in Rwanda.

Table 4.24. Coefficients showing the business environment measures

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1.159</td>
<td>.241</td>
<td>4.799</td>
</tr>
<tr>
<td></td>
<td>Business environment</td>
<td>.766</td>
<td>.054</td>
<td>.835</td>
</tr>
</tbody>
</table>

a. Dependent Variable: growth of coffee exporting processing firms

Using linear regression analysis, business environment was regressed to find out how it influences the growth of coffee export processing firms in Rwanda. With Beta=0.835, t-values=14.291 and sig=0.000, an increase of business environment by one (1) unit will lead to an increase of the growth of coffee export processing firms by 0.835. This is depicted by linear regression model: GCEPF=1.159+0.766BE
Table 4.25. Correlations showing the business environment measures

<table>
<thead>
<tr>
<th>Variables</th>
<th>growth of coffee exporting processing firms</th>
<th>Business environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Growth of coffee</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>.835**</td>
</tr>
<tr>
<td></td>
<td>exporting processing firms</td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>91</td>
</tr>
</tbody>
</table>

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

The results in table 4.25 with Pearson correlation coefficient $r=0.835$ and a significance p-value of 0.000 (sig=0.000) show that there is a positive and significant linear relationship between business environment and the growth of coffee export processing firms in Rwanda. The directional change in the independent variable (business environment) leads to the same directional change in the dependent variable (growth of coffee export processing firms). Thus, the third alternative hypothesis which confirms that business environment has a significant influence on the growth of coffee export processing firms in Rwanda, is accepted.

Greenaway et al., (2005) highlight that an important determinant of firms’ investment and participation in the export market is finance. They therefore highlighted that firms that have better access to financial resources are capable of meeting expenses and costs
associated with the export business and are more likely to increase their involvement on the international market.

Transport costs are an important barrier to trade and have an important effect on exports (Calderón & Servén, 2008). Problems of access to quality transport services thus manifest themselves in the form of reduced profit margins and reduced competitiveness. Infrastructure development is thus a key element of countries’ ability to produce and move goods from one area to another or from one country to another. Weak infrastructure is therefore a major impediment to exports, competitiveness and sustainable development in most African countries, particularly land-locked countries like Rwanda.

Most African countries have hardly been able to put in place the transport infrastructure that would meet their development needs (Anderson & Wincoop, 2004). New technologies improve efficiency, enable greater production, and are a source of profit for firms. In fact, firms with high levels of technological advancement tend to report high levels of firms’ performance (Colombelli et al., 2014). Rwanda should also make renewed efforts to bring about a major expansion of its already well identified energy potential. This can take place through the implementation of different projects to enhance infrastructure development (Olugbeng et al., 2013).

4.8.4. Strategic Human Capital Measures

The following linear regression analysis indicates the relationship between the independent variable which is strategic human capital and the dependent variable which is growth of coffee export processing firms.

Hypothesis 4: $H_{44}$: There is a significant influence of strategic human capital on the growth of coffee export processing firms in Rwanda.
Table 4.26. Regression results for strategic human capital measures

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>.882&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.778</td>
<td>.776</td>
<td>.245</td>
</tr>
</tbody>
</table>

<sup>a</sup>. Predictors: (Constant), Strategic human capital

The results in table 4.26 indicate that there is a significant positive relationship between strategic human capital and the growth of coffee export processing firms in Rwanda with R=0.882 and R²=0.778. The coefficient of determination (R²) indicates that explanatory power of the independent variable is 0.778. This means that 77.8% of the variation or change in growth of coffee export processing firms is explained by a unit change in strategic human capital. The remaining 22.2% unexplained variation is due to other variables outside the regression model. The ANOVA model is \( \text{GCEPF} = \beta_0 + \beta_4 \text{SHC}_t + \varepsilon \)

The findings are in line with the research by Choo & Bontis, (2010) human capital management helps the employees to improve in areas where they feel they are lacking. Nielsen, Bukh, Mouritsen, Johansen and Gormsen (2006) argued that human capital helps to improve the firm’s growth. Managerial skills of owners which exemplify some of intellectual capital components, are one of the important resources which companies rely on to improve their efficacy and efficiency, and hence gain a competitive advantage as argued by Bontis (2006).

Marr (2008) postulated that intellectual capital is the key factor for the company success and important levers for value creation. Hsu and Fang (2010) revealed that intellectual capital is becoming a crucial factor for a firm’s long-term profit and performance that identify their core competence as invisible assets rather than visible assets.
Table 4.27. ANOVA results for strategic human capital measures

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Regression</td>
<td>18.785</td>
<td>1</td>
<td>18.785</td>
<td>312.681</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>5.347</td>
<td>89</td>
<td>.060</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24.132</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Strategic human capital
b. Dependent Variable: growth of coffee exporting processing firms

ANOVA results in table 4.27 show that the sig value (0.000) is less than the level of significance (0.05) and the F-statistic (F=312.681) is greater than the P-value (0.000), hence a confirmation that strategic human capital has an influence on the growth of coffee export processing firms in Rwanda.

Table 4.28. Coefficients showing the strategic human capital measures

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1.466</td>
<td>.178</td>
<td>8.228</td>
</tr>
<tr>
<td></td>
<td>Strategic human capital</td>
<td>.697</td>
<td>.039</td>
<td>.882</td>
</tr>
</tbody>
</table>

a. Dependent Variable: growth of coffee exporting processing firms

Using linear regression analysis, strategic human capital was regressed to find out whether it influences the growth of coffee export processing firms in Rwanda. With Beta=0.882, t-values=17.683 and sig=0.000, the results in table 4.28 indicate that when strategic human capital increases by one (1) unit, the growth of coffee export processing firms increases by 0.882. Thus, the model becomes: GCEPF=1.466+0.697SHC
In a knowledge-based economy, intellectual capital is a key driver for the success of the organizations. A knowledge-based economy is therefore transferring the ideas into products and services and intellectual capital is appeared as the critical factor for the success of organizations (Khaliq, Shaari, Isa & Agee, 2011). Shury et al., (2008) argued that people should be seen as the only true agents in business; all tangible physical products, assets as well as intangible relations, are results of human action and depend ultimately on people for their continued existence.

Experience of managers is part of the human capital and comprises technological, commercial, organizational and managerial skills and knowledge that managers accumulate during their careers (Barkema & Shvyrkov, 2007). Knowledge about past industry conditions enhances managers’ capability to understand current and predict future industry dynamics (Kor & Sundaramurty, 2009). Furthermore, the firm-specific experience is particularly valuable to improve the firm performance (Filatotchev et al., (2009). Likewise, firms that have skilled and experienced people grow faster (Kor & Sundaramurty, 2009).

Table 4.29. Correlations showing the strategic human capital measures

<table>
<thead>
<tr>
<th>Variables</th>
<th>growth of coffee exporting processing firms</th>
<th>Strategic human capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth of coffee</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Exporting processing firms</td>
<td>Sig. (2-tailed)</td>
<td>.882**</td>
</tr>
<tr>
<td>N</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>Strategic human capital</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.882**</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>91</td>
<td>91</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
The results in table 4.29 with Pearson correlation coefficient (r=0.882) and a significance p-value of 0.000 (sig=0.000) show that there is a strong positive linear relationship between strategic human capital and the growth of coffee export processing firms in Rwanda. The directional change in the independent variable (strategic human capital) leads to the same directional change in the dependent variable (growth of coffee export processing firms). Thus, the fourth alternative hypothesis which confirms that there is a significant influence of the strategic human capital on the growth of coffee export processing firms in Rwanda, is accepted.

According to Goldin (2014), human capital theory has a notion that there are investments in people (education and training) and that investment increases individual productivity. From education and training, Jehanzeb and Bashir (2013) observe that human capital development generates benefits for the individual and the organization. For the individual, the benefits lie in acquiring soft and technical skills required by the organization to enhance efficiency and for the organization, human capital makes it solvent and competitive in the market. Hashim (2014) observe that companies invest in their employees to take advantage of the human capital management which was closing skills gap that was a critical area of human resource development and helps a firm to continuously penetrate the market.

A review of a number of earlier studies by Marimuthu, Arokiasamy and Ismail (2009) on the benefits of human capital development found out that human capital development has a positive correlation with organizational performance. Accordingly, human capital development results in higher performance and sustainable competitive advantage, higher organizational commitment and enhanced retention and contributes significantly in the strategic planning on how to create competitive advantage. It also notes that human capital development makes the firm gain competitive advantage when they own firm specific resources that cannot be copied by rivals.

Gunu, et al., (2013) in their study of training as a tool for organizational development on selected banks in Nigeria conclude that there are additional outcomes that are related
to performance indirectly. Devi and Shaik (2012) suggest training is a key that unlocks the potentials of growth and development opportunities to achieve competitive advantage. Similarly, Rigby (2013) concluded that core competencies allow companies to invest in their strengths that differentiate them, helps employees to understand management priorities and can be used to design competitive positions and strategies.

4.8.5. Overall Inferential Statistics

To get more information about the relationship between the independent variables and the dependent variable, a multiple linear regression was carried out. The overall inferential statistics was done using Karl Pearson's correlation coefficient and ANOVA to determine the overall influence of strategic management drivers on the growth of coffee exports processing firms in Rwanda.

Table 4.30. Multiple Linear Regression Model

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.953(^a)</td>
<td>.909</td>
<td>.905</td>
<td>.160</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Strategic value addition, Product and markets diversification, Business environment, Strategic human capital.

The overall goodness-of-fit for combined strategic management drivers was obtained through regressing the goodness-of-fit of all the independent variables. The multiple linear regression model represented by \(GCEPF=\beta_0+\beta_1SVA+\beta_2PMD+\beta_3BE+\beta_4SHC+\epsilon\), studies the relationship between all independent variables put together and the dependent variable; in other words, it indicates the relationship between strategic value addition, product and markets diversification, business environment and strategic human capital put together, and the growth of coffee export processing firms in Rwanda.

Table 4.30 shows that \(R= 0.953\) and \(R^2= 0.909\) which means that 90.9% of change in growth of coffee export processing firms was explained by all the conceptualized
strategic management drivers on growth of coffee export processing firms; strategic value addition, product and markets diversification, business environment and strategic human capital combined while the remaining percentage of 9.1% could have been explained by variables which were not conceptualized in this study. ANOVA test was done to test the overall significance of the independent variables in influencing growth of coffee export processing firms. Table 4.30 presents the results of the analysis as follows:

Table 4.31. Overall ANOVA results for all the study variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>21.930</td>
<td>4</td>
<td>5.483</td>
<td>214.145</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>2.202</td>
<td>86</td>
<td>.026</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24.132</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Strategic human capital, Business environment, Strategic value addition, Product and markets diversification
b. Dependent Variable: growth of coffee exporting processing firms

The overall ANOVA results highlighted in table 4.31 illustrate that the significance value of the model was 0.000 (sign=0.000) which is less than 0.05, and the F-statistic (F=214.145) is far greater than the P-value (0.000), hence a confirmation that if all independent variables are regressed together; strategic value addition, product and markets diversification, business environment, and strategic human capital, they had a significant influence on the growth of coffee export processing firms in Rwanda. Further, the residual value (2.202) is less than the regression value (21.930) which indicates that all independent variables regressed together had an influence on the growth of coffee export processing firms in Rwanda.

A summary of regression results of all strategic management drivers against the growth of coffee export processing firms in Rwanda (goodness-of-fit) is presented in table 4.32 as follows:
Table 4.32. Regression of all independent variables-Goodness-of-fit

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic value addition</td>
<td>.937</td>
<td>.877</td>
<td>.876</td>
<td>.182</td>
</tr>
<tr>
<td>Product and market diversification</td>
<td>.927</td>
<td>.860</td>
<td>.858</td>
<td>.195</td>
</tr>
<tr>
<td>Business environment</td>
<td>.835</td>
<td>.696</td>
<td>.693</td>
<td>.287</td>
</tr>
<tr>
<td>Strategic human capital</td>
<td>.882</td>
<td>.778</td>
<td>.776</td>
<td>.245</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), strategic value addition
b. Predictors: (Constant), strategic value addition, product and market diversification
c. Predictors: (Constant), strategic value addition, product and market diversification, business environment
d. Predictors: (Constant), strategic value addition, product and market diversification, business environment, strategic human capital

The results show that strategic value addition has a strong positive influence on the growth of coffee exports processing firms in Rwanda, as it accounted for 87.7% of the variability in the growth of coffee export processing firms in Rwanda (R square = 0.877). The results also revealed that product and markets diversification had a strong positive influence on the growth of coffee exports processing firms in Rwanda, as it accounted for 86% of the variability in the growth of coffee export processing firms in Rwanda (R square = 0.860).

The results also indicated that business environment had a positive influence on the growth of coffee exports processing firms in Rwanda, as it accounted for 69.6% (R square = 0.696) of the variability in the growth of coffee export processing firms in...
Rwanda. Finally, the results show that strategic human capital also establishes a strong and positive influence on the growth of coffee export processing firms in Rwanda, as it accounted for 77.8% of the variability in the growth of coffee export processing firms in Rwanda (R square = 0.778).

Table 4.33. Multiple Linear Regression Model Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.671</td>
<td>.313</td>
<td></td>
<td>3.029</td>
</tr>
<tr>
<td>Strategic value addition</td>
<td>.448</td>
<td>.084</td>
<td>.384</td>
<td>3.969</td>
</tr>
<tr>
<td>Product and markets diversification</td>
<td>.283</td>
<td>.080</td>
<td>.356</td>
<td>2.324</td>
</tr>
<tr>
<td>Business environment</td>
<td>.145</td>
<td>.052</td>
<td>.055</td>
<td>.806</td>
</tr>
<tr>
<td>Strategic human capital</td>
<td>.180</td>
<td>.063</td>
<td>.075</td>
<td>.968</td>
</tr>
</tbody>
</table>

a. Dependent Variable: performance of coffee exporting processing firms

In order to determine the influence of strategic management drivers on the growth of coffee export processing firms in Rwanda, the researcher conducted a multiple linear regression analysis using data processed in SPSS. The multiple linear regression model highlighted in table 4.33 indicated that strategic value addition, product and market diversification, business environment and strategic human capital had a significant influence on the growth of coffee export processing firms with p-values of 0.000, 0.000, 0.001, 0.021, and 0.011 respectively, hence P<0.05.
From the findings in table 4.33, the estimated model was as follows:

\[ \text{GCEPF} = \beta_0 + \beta_1 \text{SVA} + \beta_2 \text{PMD} + \beta_3 \text{BE} + \beta_4 \text{SHC}, \]

the stochastic term has been minimized.

Upon substitution:

\[ \text{GCEPF} = 0.671 + 0.448 \text{SVA} + 0.283 \text{PMD} + 0.145 \text{BE} + 0.180 \text{SHC}, \]

where 0.448, 0.283, 0.145 and 0.180 (\( \beta \neq 0 \)) are estimated coefficients of the expected increase of the growth of coffee export processing firms, corresponding to an increase in strategic management drivers.

Where

- **GCEPF**: Growth of coffee exports processing firms
- **SVA**: Strategic Value Addition
- **PMD**: Product and Markets Diversification
- **BE**: Business Environment
- **SHC**: Strategic Human Capital

\( \beta_0 = 0.671 \) indicated that even if no research has been carried out, the coffee export processing firms will grow at 0.671.

\( \beta_1 = 0.448 \) indicated that a unit change in strategic value addition resulted in 44.8% change in the growth of coffee export processing firms;

\( \beta_2 = 0.283 \) indicated that a unit change in product and markets diversification resulted in 28.3% change in the growth of coffee export processing firms;

\( \beta_3 = 0.145 \) indicated that a unit change in business environment resulted in 14.5% change in the growth of coffee export processing firms;

\( \beta_4 = 0.180 \) indicated that a unit change in strategic human capital resulted in 18% change in the growth of coffee export processing firms.

After all the hypotheses have been accepted, the optimum model remained the same as the estimated model, and the revised conceptual framework was the same as the conceptual framework illustrated under Figure 2.3.
In order to establish the relationship among strategic management drivers and the growth of coffee export processing firms, a correlation matrix was used. Table 4.62 shows a varied degree of interrelationships among strategic management drivers and growth of coffee export processing firms.
Table 4.34. Correlations matrix

<table>
<thead>
<tr>
<th>Matrix</th>
<th>growth of coffee exporting processing firms</th>
<th>Strategic value addition</th>
<th>Product and markets diversification</th>
<th>Business environment</th>
<th>Strategic human capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>growth of coffee exporting processing firms</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.937**</td>
<td>.927**</td>
<td>.835**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>Strategic value addition</td>
<td>Pearson Correlation</td>
<td>.937**</td>
<td>1</td>
<td>.922**</td>
<td>.805**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>Product and markets diversification</td>
<td>Pearson Correlation</td>
<td>.927**</td>
<td>.922**</td>
<td>1</td>
<td>.860**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>Business environment</td>
<td>Pearson Correlation</td>
<td>.835**</td>
<td>.805**</td>
<td>.860**</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>Strategic human capital</td>
<td>Pearson Correlation</td>
<td>.882**</td>
<td>.896**</td>
<td>.881**</td>
<td>.861**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>91</td>
<td>91</td>
<td>91</td>
<td>91</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
Table 4.34 summarizes Pearson correlations of all independent variables and all correlation coefficients indicate that there is a significant positive correlation between each individual independent variable and the growth of coffee exports processing firms, with the highest correlation coefficient being established between strategic value addition and the growth of coffee exports processing firms \((r = 0.937)\) followed by product and market diversification \((r = 0.927)\), then strategic human capital \((r = 0.882)\) and finally business environment with a correlation coefficient \(r = 0.835\).
The following table represents the results of the four hypotheses test.

**Table 4.35. Summary of hypotheses test results**

<table>
<thead>
<tr>
<th>Hypothesis statement</th>
<th>P-Values</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hₐ₁: There is a significant positive influence of strategic value addition on the growth of coffee export processing firms in Rwanda.</td>
<td>0.000</td>
<td>Fail to reject Hₐ₁ and therefore, it was confirmed that there was a significant influence of strategic value addition on the growth of coffee export processing firms in Rwanda.</td>
</tr>
<tr>
<td>Hₐ₂: There is a significant positive influence of product and markets diversification on the growth of coffee export processing firms in Rwanda.</td>
<td>0.001</td>
<td>Fail to reject Hₐ₂ and therefore, it was confirmed that there was a significant influence of product and markets diversification on the growth of coffee export processing firms in Rwanda.</td>
</tr>
<tr>
<td>Hₐ₃: There is a significant positive influence of business environment on the growth of coffee export processing firms in Rwanda.</td>
<td>0.011</td>
<td>Fail to reject Hₐ₃ and therefore, it was confirmed that there was a significant influence of business environment on the growth of coffee export processing firms in Rwanda.</td>
</tr>
<tr>
<td>Hₐ₄: There is a significant positive influence of strategic human capital on the growth of coffee export processing firms in Rwanda.</td>
<td>0.021</td>
<td>Fail to reject Hₐ₄ and therefore, it was confirmed that there was a significant influence of strategic human capital on the growth of coffee export processing firms in Rwanda.</td>
</tr>
</tbody>
</table>
The study was based on the assertion that strategic management drivers had an influence on the growth of coffee export processing firms. Accordingly, four relevant hypotheses had been set to guide the study. In order to establish the statistical significance of respective hypotheses, simple and multiple linear regression analysis were conducted at 95 percent confidence level ($\alpha=0.05$). With P-values of 0.000, 0.001, 0.011 and 0.021 respectively which are less than 0.05, there was a confirmation of a positive influence of strategic value addition, product and markets diversification, business environment, and strategic human capital on the growth of coffee exports processing firms in Rwanda.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter presents the summary of the findings of the study results, relevant discussions, conclusions and the necessary recommendations made from the research findings of the study. The study sought to establish the influence of strategic management drivers on the growth of coffee export processing firms in Rwanda. The independent variables were strategic value addition, product and markets diversification, business environment, strategic human capital. The dependent variable was the growth of coffee export processing firms.

The summary was done in line with the specific objectives of the study based on output of the descriptive and inferential statistical analyses used to test the research hypotheses of the study. The data sources that were used in this study consisted of both primary and secondary data. The presentation was organized around specific objectives and conclusions were in tandem with the specific objectives. The study finally suggested areas for further research.

5.2. Summary of Findings

The quantitative data were presented and analyzed using descriptive and inferential statistics. Specifically, the study determined the influence of strategic value addition, product and markets diversification, business environment and strategic human capital on the growth of coffee export processing firms in Rwanda. The empirical literature established that strategic management drivers are a key ingredient of the growth of coffee export processing firms in Rwanda. A pilot study was undertaken with 9 respondents from coffee export processing firms, NAEB, MINECOFIN and MINICOM to test the reliability of the questionnaire. The findings of the study for each specific objective are summarized as follows:
5.2.1. Influence of Strategic Value Addition on the Growth of Coffee Export Processing Firms

The study found out that strategic value addition had a significant and positive influence on the growth of coffee export processing firms in Rwanda. Strategic value addition was found to be the major contributor to the growth of coffee export processing firms, compared to other identified strategic management drivers. This resulted from the fact that the quality of coffee is a key factor for Rwanda’s access to the world coffee market and the price paid for different coffee qualities depends on the type of coffee, bean size (screen), processing, color, and taste.

Obtaining a price premium thus depends as much on the ability to get a quality coffee. This research established that quality attributes such as aroma, taste, cleanliness, and so on is improved through proper production and processing methods. Quality control is also very important in the development of the coffee sector as providing good quality coffee was the only way out and viable option to get into the world market and to remain competitive.

5.2.2. Influence of Product and Markets Diversification on the Growth of Coffee Export Processing Firms

The study realized that product and markets diversification had a significant and positive influence on the growth of coffee export processing firms in Rwanda. The study highlighted that the market size matters for exporting a large number of fully washed coffee and that coffee export processing firms should export coffee of best quality to identified destinations.

It was also found out that the price of roasted coffee almost doubles that of fully washed coffee, therefore firms should always strive to continuously look for product and markets diversification to better satisfy the international market. It was therefore realized that coffee export processing firms needed to identify the best strategies that would enable them to stay competitive in the current ever changing business environment. The
study indicated that the development and implementation of effective marketing strategies were particularly important for firms pursuing the global market expansion.

5.2.3. Influence of Business Environment on the Growth of Coffee Export Processing Firms

The study found out that business environment had a significant and positive influence on the growth of coffee export processing firms in Rwanda. Therefore, policy makers and coffee export processing firms should increasingly focus on a sound investment on business environment as a strategy for economic development, and particularly for the growth and superior performance of coffee export processing firms. This is because for firms to deliver efficiently, they must learn to appreciate the present challenges and cope with the increasingly competitive environment which calls for firms to rethink strategically. It was realized that organizations should develop different types of strategies that will sustain them in the business environment. This enables the firms to identify the areas for growth and expansion of their activities.

Government's strategies to improve the business environment should consist of the analysis, decision and actions undertaken in order to sustain and create a conducive environment. Consequently, proper planning must be put in place to ensure that the business environment is conducive enough and ready to put the organization to the best position in the market place.

The study highlighted that an important determinant of firms' investment and participation in the export market is finance and that firms that have better access to financial resources are capable of meeting expenses and the costs associated with the export, and are also more likely to increase their involvement on the international markets. The study also highlighted the effect of infrastructure on company's growth and stated that weak infrastructure is an impediment to the growth of firms. Investing in the energy sector was also found as one of the safest ways to achieve a high rate of return.
The study emphasized that a firm which is unable to invest in Information and Communication and cope with the technological changes, may not survive.

5.2.4. Influence of Strategic Human Capital on the Growth of Coffee Export Processing Firms

The study findings indicated that strategic human capital significantly and positively had an influence on the growth of coffee export processing firms in Rwanda. The study emphasized that people should be seen as the only true agents in business and the firm-specific experience are particularly valuable to improve its performance. All tangible physical products, assets as well as intangible relations, are results of human action and depend ultimately on people for their continued existence.

It was clear that intellectual capital affects the growth of coffee export processing firms to a great extent, and human capital development helps in extracting the best employees and to hire the right candidate for the right role. Intellectual capital also plays an instrumental role in increasing the efficiency of employees, making them an indispensable resource for the organization. Likewise, skills, competences, capabilities and experience of human capital help the firms to grow faster. Intellectual capital has the potential to contribute to organizational profitability and competitive advantage.

It was also noted that employees’ experience and more especially managerial experience affects firm's performance and has an impact on firm's growth. The study further elaborated that training facilitates an organization to recognize that its workers are not performing as expected and thus their knowledge, skills and attitudes need to be upgraded according to the firm's goals and objectives, thus contributing to superior organizational performance.

5.3. Conclusions

The conclusions were based on the objectives of the study in order to determine the influence of strategic management drivers on the growth of coffee export processing
firms in Rwanda. The results from the study findings established that strategic management drivers taken separately or combined were found to significantly and positively influence the growth of coffee export processing firms in Rwanda. All the stated hypotheses were tested in the regression model and they were found to have a significant and positive relationship between the identified strategic management drivers and the growth of coffee exports processing firms in Rwanda.

The results from the study findings further revealed that strategic value addition was seen to be the major contributor as it had the highest regression coefficient, thus indicating its high influence on the growth of coffee export processing firms in Rwanda, followed by product and markets diversification, then strategic human capital and finally business environment. The findings from this research pointed out a number of important implications in order to improve the growth of coffee export processing firms in Rwanda, as stated below:

5.3.1. Influence of Strategic Value Addition on the Growth of Coffee Export Processing Firms

Basing on the first specific research objective of this study and as per the study findings, it was concluded that strategic value addition has an influence on the growth of coffee export processing firms in Rwanda. The analysis from demographics, descriptive analysis, correlation regression and ANOVA indicated that there is a significant and positive relationship between the selected strategic management drivers and coffee export processing firms.

Emphasis on continuously striving for the high quality of specialty coffee through the identified strategic management drivers is of great importance, because there is a continuous fluctuation of the price of coffee on international market and aiming for profitability would therefore require strategic and successful factors to be implemented. This will lead to significantly higher price and, thus, higher foreign exchange earnings
for the coffee exports processing firms and for the country at large. Quality attributes should be improved through the proper production, processing methods, and quality control. The results obtained from this study were very important in terms of reflecting the kind of strategic management drivers needed for the strategic value addition in order to achieve the growth of coffee export processing firms in Rwanda.

5.3.2. Influence of Product and Markets Diversification on the Growth of Coffee Export Processing Firms

As per the second specific objective of this study and the study findings, it was concluded that product and markets diversification has an influence on the growth of coffee export processing firms in Rwanda. The analysis from demographics, descriptive analysis, correlation regression and ANOVA indicated that there is a significant and positive relationship between the selected strategic management drivers and coffee export processing firms. This study concluded that providing good quality coffee is the only way out and viable option to get into the world markets and to remain competitive.

Coffee export processing firms in Rwanda should continuously strive to make Rwanda coffee internationally recognized, and the processing methods of coffee should continuously be improved and diversified in order to attract high prices; hence proper marketing strategies should be put in place. It was realized that product and markets diversification is often constrained by limited domestic capital, technology and market knowledge, and firms should find ways to overcome these challenges.

This study also revealed that the price for roasted coffee almost doubles that of fully washed coffee; thus encouraging firms to invest in roasted coffee is recognized as one of the most important mechanisms for improving long-run performance of those firms. Coffee export processing firms should acquire the required capabilities to export to new destinations, produce and better process the quality coffee necessary to compete on the regional and international markets. Access to accurate and relevant market information is a virtual prerequisite to sustainable international markets.
5.3.3. Influence of Business Environment on the Growth of Coffee Export Processing Firms

As per the third objective of this study and the study findings, it was concluded that business environment significantly and positively has an influence on the growth of coffee export processing firms in Rwanda. The analysis from demographics, descriptive analysis, correlation regression and ANOVA indicated that there is a significant and positive relationship between the selected strategic management drivers and coffee export processing firms.

It was concluded that firms should continuously develop different types of strategies that will sustain them in the business environment. This enables firms to identify the areas for growth and expansion of their activities. The Government of Rwanda should put in place adequate strategies for analysis, decision and actions undertaken in order to sustain and create a conducive environment.

Proper planning must be put in place to ensure that the business environment is conducive enough and ready to put the organization to the best position in the market place. It was also concluded that firms that have better access to financial resources are capable of meeting expenses and the costs associated with the exports and are more likely to increase their involvement on the international markets. Therefore, the Government of Rwanda should put in place different strategies which will facilitate coffee export processing firms to have access to finance which will allow them to make larger investments in capital and new technologies as well as meeting the requirements for exporting coffee on different international markets.

5.3.4. Influence of Strategic Human Capital on the Growth of Coffee Export Processing Firms

Based on the fourth specific research objective of this study and as per the study findings, it was concluded that strategic human capital has an influence on the growth of
coffee export processing firms in Rwanda. The analysis from demographics, descriptive analysis, correlation regression and ANOVA indicated that there is a significant and positive relationship between the selected strategic management drivers and coffee export processing firms.

The study therefore concluded that there is a need to have employees who have ability, capabilities, experience and knowledge that provide economic value to the organization so as to improve the growth of coffee export processing firms in Rwanda. Therefore, the role played by human resources cannot be ignored in the current high competitive era where organizations are striving to outdo their competitors.

Thus, human resource is one of the important assets in any organization. There is a need to strategically develop and improve this important resource especially through education and training because it is through human capital that an organization can acquire and sustain its competitive advantage over its competitors, leading to better performance in order to meet the firms' targets. Human capital thus remains one of the most important elements in obtaining competitive advantage for any organization.

5.4. Recommendations

Although many initiatives have been taken in view of the coffee export sector in Rwanda, some challenges still remain in order for coffee export processing firms to achieve a sustainable competitive advantage. Thus, enhancing the growth of coffee export processing firms in Rwanda is paramount. This study therefore recommends the adoption of the selected strategic management drivers by the coffee export processing firms in Rwanda; strategic value addition, product and markets diversification, business environment and strategic human capital. With the implementation of the selected strategic management drivers, more important goals will be realized like those of gaining profits, increasing sales growth, growing and developing through competitive strategic advantages.
However, the influence of each strategic management driver varies from one coffee export processing firm to another. It is therefore recommended that each Chief Executive Officer and owner of each coffee export processing firm study and select the strategic management drivers that best suit their firms, in order to achieve maximum profits. All actors along the coffee value chain should be fully aware that high quality coffee will be attained through the involvement and participation of all those actors, and the quality of coffee at every step should be controlled.

This study will greatly make a contribution in the body of knowledge and specifically in the area of strategic management since strategic management drivers are closely linked to specific strategies adopted by the organization in order to maximize organizational performance and profits. Therefore, the study recommends that strategic management should be implemented in all organizations to ensure that strategic policies with clear strategic goals are in place and actively promote organizational effectiveness, reputation, values and ethics. Specifically, recommendations have been grouped into two categories:

### 5.4.1. Policy Implications

In view of the study findings and the conclusions, the selected strategic management drivers will assist policy makers in coming up with policies on strategic management drivers towards improving the growth of coffee export processing firms. Chief Executive Officers also need to consider the combinations of the stated strategic management drivers in order to optimize their profits.

In regard to strategic value addition, and in order to reach continuous improvement of high quality coffee, the production and processing methods as well as coffee quality control mechanisms should be enhanced. There should be innovation, creativity and the use of Information and Communication Technology thus emphasizing on export-oriented coffee processing. The Coffee Export Strategy in operation from 2009 to 2012
should be revised because this is a strategic guiding document on coffee for both policy makers and coffee export processing firms.

Furthermore, there should be an effective implementation of the Coffee Export Strategy and the responsibilities of different key actors should clearly be respected. Regular monitoring and evaluation with regular and comprehensive reports should be done because implementation of strategies that lack the support of each part would effectively limit the impact of the Coffee Export Strategy on the quality of coffee exported on international markets. Besides, a direct participation of CEPAR in the development of coffee exports policies and strategies through a transparent, accountable and inclusive process will be very crucial to building the long-term sustainability of the coffee export processing firms.

Coffee export processing firms should strive to achieve at least 90% score on the Specialty Coffee Association for America (SCAA) cupping standards, and ensure that Rwanda coffee meets the high quality grades of the SCAA classification. This is especially important given the growing emphasis of international markets on certification of sustainable coffee production practices and will therefore help coffee export processing firms to move from the high quality coffee to the exemplary coffee, which will capture a high price premium.

Concerning product and markets diversification, NAEB should continuously identify and develop strategic networks in order to increase awareness of the quality of Rwanda coffee, and establish linkages and networks between locally based exporters and international dealers or buyers so as to gather enough information related to coffee prices on international markets.

The Government of Rwanda in collaboration with CEPAR should conduct extensive research in order to find the best international markets for Rwanda quality coffee and anticipate which type of processed coffee would sell best. Coffee export processing firms should therefore embark on a highly competitive market with well-established and
experienced players. Studying the possibility of selling coffee to other sustainable coffee markets represents another alternative in the market diversification strategy.

CEPAR and NAEB should regularly participate in local, regional and international trade fairs and exhibitions in order to gain experience from competitors and increase consumer’s awareness on Rwanda coffee quality. The local market for coffee consumption should be developed because the consumption rate of coffee by Rwandans is still very low as they prefer to drink imported coffee rather than their own coffee. Therefore, a policy should be put in place to discourage the purchase of imported instant coffee like Nescafe and encourage the use of Rwanda coffee locally.

In regard to the improvement of the business environment, Export Guarantee Facility which was put in place to provide transaction-related guarantees to commercial banks to securitize export finance transactions should be strengthened to assist small, medium and large coffee export processing firms in getting financial resources necessary to expand their businesses and reach remarkable international markets. The Government of Rwanda should continue to put more efforts in reliable infrastructure in order to support coffee export processing firms to minimize the transport costs, hence increasing their profits. In addition, continuously strengthening regional and international cooperation to promote the export of high quality coffee is very important.

Concerning strategic human capital, in order to support the growth of coffee export processing firms, Rwanda should invest in continued skills development of all coffee actors through education and trainings. Coffee export processing firms should strategically invest in human capital to ensure that their employees are equipped with the appropriate skills, knowledge, capabilities and competencies that will enable them to deliver positively and propel the organization to the next level.

Hence, the Government of Rwanda and CEPAR should organize trainings in a wide range of areas, including installation, operating and maintenance of coffee washing stations, cherry sorting and selection, fermentation, coffee packaging, financial
management and other important areas to improve the efficiency and effectiveness of the coffee export processing firms. The productivity of coffee will be improved through the capacity building of coffee growers by training groups of farmers on improved coffee production techniques and any other training which would improve the quality of Rwanda coffee at the production level. Coffee cupping also requires specialized trainings to acquire the technical expertise and introduce them to quality standards and attributes such as flavor, acidity, taste, after taste and sweetness.

5.4.2. Managerial Implications

The findings of this research revealed positive implications for Chief Executive Officers of coffee export processing firms in Rwanda to adopt the identified strategic management drivers and more specifically select the ones that are suited to their own coffee export processing firms, in order to enhance their performance and optimize their profits. Concerning strategic value addition, growing, harvesting, high quality processing, and storage are the most variable activities that can influence the determination of quality coffee.

Hence, coffee export processing firms should continuously strive for improved coffee quality in order to achieve value addition at all stages, and NAEB and CEPAR should create opportunities for investing in different varieties of coffee processing. Thus, high quality coffee will allow coffee export processing firms and the country at large to increase their external earnings. Coffee packaging materials should also be improved because the quality of coffee can be influenced by packaging materials which can have adverse effect on coffee quality.

Coffee roasters should have the technical capabilities of professionally processing Rwanda coffee because the roasted coffee almost doubles the price of fully washed coffee and the freshness and taste of coffee roasted is more preferred than the quality of
the fully washed coffee. Therefore, Rwanda should strive to increase the volume of roasted coffee which attracts high price premium.

Farmers have to be given incentives to produce good quality coffee beans. This implies not only more efforts in facilitating adequate transport facilities from their locations to the washing stations, but above all paying a price premium for good quality coffee beans. Thus, coffee export processing firms should have a system in place to pay variable prices to different lots of coffee beans as a way of motivating farmers to produce and supply to coffee washing stations cherries of good quality.

Regarding product and markets diversification, coffee export processing firms need to reposition themselves on the international markets, aiming at better coffee quality and specifically putting in place marketing strategies in terms of product branding. There is a need for fulfilling the conditions for special labels in order to secure a better market position. This will result in Rwanda coffee being labeled as 100% coffee. The requirements and procedures to obtain special labels require skills and expertise that should be developed in Rwanda.

In regard to business environment, the preparation of high quality coffee requires financial resources in order to acquire necessary facilities and develop marketing strategies in order to gain the commercial viability on the international markets, and boost Rwanda coffee competitive advantage. Therefore, different mechanisms to improve access to finance by small, medium and large coffee export processing firms are required.

Concerning strategic human capital, regular technical assistance and trainings should be provided to coffee export processing firms and farmers. Therefore, skills and knowledge in the management of coffee cooperatives and associations should be enhanced. Intellectual capital is a highly valuable strategic asset which mainly includes intangible organization assets. Hence, the good use of intellectual capital will result into effective management in order to increase superior firm performance. The ability to have skillful
people to run coffee export processing firms’ activities will lead to a successful future in the coffee export sector in Rwanda.

5.5. Areas for Further Research

This study aimed at determining the influence of strategic management drivers on the growth of coffee export processing firms in Rwanda. To this end therefore, this study is a millstone for future research in this area. Available literature indicates that there were still limited researches highlighting the application of strategic management drivers in the coffee sector. Hence, as a future avenue of research, there is need to carry out similar research on strategic management drivers which can be applicable in other countries like East African Countries and others, in order to establish whether the link between strategic management drivers and the growth of coffee export processing firms can be generalized.

A research to identify the successful organizational factors and barriers towards the implementation of Rwanda Coffee Export Strategy will be of great importance. Further studies could involve the influence of strategic management drivers on other industries dealing with export. Another important topic to work on would be on the sustainability of coffee export processing firms in Africa. It is also recommended that future research focuses on the complementarities of various coffee actors in the implementation of Rwanda Coffee Export Strategy.

Lastly, the study recommends that future researchers work on the impact of multinational coffee marketing strategies on the survival of coffee export processing firms in Rwanda.
REFERENCES


Ferreira, G. F. P., Novaes, Q. S., Malta, M. R., & Souza, S. E. (2013). Quality of coffee produced in the South-West region of Bahia, Brazil, subjected to different forms


APPENDICES

Appendix I. Introductory letter to the respondents

Odette UWIZEYE
P.O BOX 1514 Kigali, Rwanda

Dear Respondent,

Re: Data Collection

I am a student at Jomo Kenyatta University of Agriculture and Technology (JKUAT), pursuing a Degree of Doctor of Philosophy in Business Administration and I am specializing in Strategic Management. I am currently conducting a research on the “Influence of Strategic Management Drivers on the Growth of Coffee Export Processing Firms in Rwanda”.

You have been selected to participate in this study and I would highly appreciate if you can assist me by responding to all questions as completely, correctly and honestly as possible. Your response will be treated with utmost confidentiality and will be used for the purpose of this research only.

Thank you in advance for your cooperation.

Yours Faithfully,

Odette UWIZEYE
Appendix II. Questionnaire

The purpose of this questionnaire is to collect data purely for academic reasons. The study seeks to investigate the influence of strategic management drivers on the growth of coffee export processing firms in Rwanda. All information will be treated with strict confidentiality. Do not put any name or identification on this questionnaire. Answer all questions as indicated.

SECTION 1. GENERAL INFORMATION

Gender (Tick where appropriate)

Male  □
Female □

Category (Tick where appropriate)

Coffee Exporter and Processor □
Staff of a Ministry □
Staff of a Public Institution □

SECTION 2. STRATEGIC VALUE ADDITION

What is the importance of coffee washing stations in improving the quality of Rwanda coffee?

...............................................................................................................................
To what extent do you agree with the following statements?
Use a scale of 1-5 where 5=Very great extent; 4 Great extent; 3=Moderate extent; 2=Low extent and 1= Very low extent. Tick as appropriate.

<table>
<thead>
<tr>
<th>S/N</th>
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<tbody>
<tr>
<td>1.</td>
<td>High quality coffee is achieved by continuous improvement of coffee quality.</td>
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<td>2.</td>
<td>Tight quality control of coffee processing helps to reach high quality coffee.</td>
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<tr>
<td>3.</td>
<td>Quality is a key factor in increasing Rwanda’s access on the world coffee markets.</td>
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<td>4.</td>
<td>There is a need for sensitization of coffee farmers on how they can improve coffee quality at the production level.</td>
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<td>5.</td>
<td>Coffee washing stations are of great importance to enhance the quality of coffee processed.</td>
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**SECTION 3. PRODUCT AND MARKETS DIVERSIFICATION**

What kind of marketing strategies should be used in Rwanda to promote its coffee export on various international markets?

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To what extent do you agree with the following statements of product and markets diversification?
Use a scale of 1-5 where 5=Very great extent; 4 Great extent; 3=Moderate extent; 2=Low extent and 1= Very low extent. Tick as appropriate.

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<tbody>
<tr>
<td>1.</td>
<td>Product and markets diversification is constrained by limited domestic capital, technology and market knowledge.</td>
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<td></td>
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<td>2.</td>
<td>Market diversification helps to choose the best market offering high price.</td>
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<tr>
<td>3.</td>
<td>Highly skilled human capital, innovation and managerial competences allow to successfully reach superior firms' growth.</td>
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<td>4.</td>
<td>Firms that export coffee have more opportunities for product and markets diversification due to competition than non-export firms.</td>
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<tr>
<td>5.</td>
<td>Appropriate marketing strategies are necessary to venture into any international markets.</td>
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</tbody>
</table>

**SECTION 4. BUSINESS ENVIRONMENT**

Does the business environment have a positive impact on the growth of coffee export processing firms in Rwanda?
Yes [ ] No [ ] (Tick where appropriate)

If Yes, how?

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224
To what extent do the following statements show the influence of business environment on the growth of coffee export processing firms in Rwanda?

Use a scale of 1-5 where 5=Very great extent; 4 Great extent; 3=Moderate extent; 2=Low extent and 1= Very low extent. Tick as appropriate.

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<tbody>
<tr>
<td>1.</td>
<td>In order to survive and prosper in a rapidly changing environment, firms should have an immediate response to the customer needs and preferences.</td>
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<td>2.</td>
<td>A conducive environment is key to the success of coffee export processing firms.</td>
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<tr>
<td>3.</td>
<td>Regional and international trade cooperation is a significant channel to reach international markets.</td>
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<tr>
<td>4.</td>
<td>Access to finance has an influence to the success of export processing firms.</td>
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<tr>
<td>5.</td>
<td>Government interventions are required to address issues related to access to financial resources by coffee export processing firms.</td>
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</tbody>
</table>
To what extent do the following statements show the influence of infrastructure development on the growth of coffee export processing firms in Rwanda?
Use a scale of 1-5 where 5=Very great extent; 4 Great extent; 3=Moderate extent; 2=Low extent and 1= Very low extent. Tick as appropriate.

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<tbody>
<tr>
<td>1.</td>
<td>Inadequate infrastructure and poor transport network are a major impediment to the growth of coffee export processing firms.</td>
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<td>2.</td>
<td>Lack of sufficient power energy is a challenge to the coffee export processing firms’ productivity.</td>
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<tr>
<td>3.</td>
<td>Access to Information Technology is key to having access to the world market and enhancing the quality of coffee exported from Rwanda.</td>
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<tr>
<td>4.</td>
<td>Sharing of information by different coffee actors in the value chain is necessary in enhancing the quality of coffee.</td>
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</table>

SECTION 5. STRATEGIC HUMAN CAPITAL

Does the intellectual capital of human resources working for coffee export processing firms have an influence on the growth of coffee export processing firms in Rwanda?

Yes [ ] No [ ] (Tick where appropriate)

If Yes, How?

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226
Does the experience of coffee export processing firms have an influence on the growth of coffee export processing firms in Rwanda?

Yes [ ] No [ ] (Tick where appropriate)

If Yes, How?

If No, Why?
To what extent do you agree with the following statements?
Use a scale of 1-5 where 5=Very great extent; 4 Great extent; 3=Moderate extent; 2=Low extent and 1= Very low extent. Tick as appropriate.

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<th>S/N</th>
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<tbody>
<tr>
<td>1.</td>
<td>Having employees with the appropriate technical skills, competence and qualifications is key to enhancing the growth of coffee export processing firms.</td>
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<td></td>
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<tr>
<td>2.</td>
<td>Experienced workforce is a competitive advantage that will enhance high performance and sustainability of coffee export processing firms.</td>
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<tr>
<td>3.</td>
<td>There is a need to invest in short-term trainings to ensure that employees have the knowledge, skills and the capacity for creation and innovation.</td>
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<tr>
<td>4.</td>
<td>Coffee export processing firms should have the vital capability and the skills to market its coffee on various international markets.</td>
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<tr>
<td>5.</td>
<td>Managers of coffee export processing firms should have the competence, experience and skills to manage the firms as well as venture on various international markets.</td>
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<tr>
<td>6.</td>
<td>There is a need to recruit and retain the best employees in order to take the company forward by increasing its sale growth and profits.</td>
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</table>
SECTION G. GROWTH OF COFFEE EXPORT PROCESSING FIRMS

To what extent do you agree with the following statements related to the growth of coffee export processing firms in Rwanda?

Use a scale of 1-5 where 5=Very great extent; 4 Great extent; 3=Moderate extent; 2=Low extent and 1= Very low extent. Tick as appropriate.

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<th>S/N</th>
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<tbody>
<tr>
<td>1</td>
<td>The growth of coffee export processing firms is driven by the level of sales growth of fully washed coffee and profits.</td>
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<td>2</td>
<td>Managers of coffee export processing firms should efficiently allocate the company’s resources in order to accomplish the company’s goal of enhancing its profits.</td>
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<td>3</td>
<td>Coffee export processing firms should endeavor to produce roasted coffee which attracts high price premium.</td>
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<td>4</td>
<td>Coffee export processing firms should always strive to increase the volume of specialty coffee and diversify the coffee processing methods.</td>
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<td>5</td>
<td>Coffee export processing firms should set up production incentives for the best coffee beans.</td>
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<td>6</td>
<td>Coffee export processing firms should invest in modern and highly performing equipments for coffee processing.</td>
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<td>7</td>
<td>Farmers should regularly be use recommended fertilizers and pesticides for coffee growing.</td>
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<td>8</td>
<td>Regular short-term trainings and sensitization of farmers are key to improving the quality of coffee produced.</td>
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</table>
Appendix III. List of Registered Coffee Exporters and Processors up to 2016 in Rwanda

<table>
<thead>
<tr>
<th>S/N</th>
<th>COMPANY NAME</th>
<th>CONTACT PERSON</th>
<th>LOCATION/DISTRICT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rwanda Coffee Exporters &amp; Processors (RWACOF)</td>
<td>ANBALAGAN DURAISWAMY</td>
<td>KICUKIRO</td>
</tr>
<tr>
<td>2</td>
<td>Coffee Business Center Ltd (CBC)</td>
<td>RWAGASANA Jean Paul</td>
<td>KICUKIRO</td>
</tr>
<tr>
<td>3</td>
<td>Unguka Muhinzi Ltd</td>
<td>IYAKAREMYE Jeremie</td>
<td>KIREHE</td>
</tr>
<tr>
<td>4</td>
<td>Rwanda Small Holder Specialty Coffee (RWASHOSCCO)</td>
<td>NTAKIRUTIMANA Zacharie</td>
<td>KICUKIRO</td>
</tr>
<tr>
<td>5</td>
<td>Greater International Grain (GIG) Co. Ltd</td>
<td>BASHANGIRE Grace</td>
<td>GASABO</td>
</tr>
<tr>
<td>6</td>
<td>Coopérative pour la Promotion des Activités Café (COOPAC)</td>
<td>NZUNNGIZE Emmanuel</td>
<td>RUBAVU</td>
</tr>
<tr>
<td>7</td>
<td>Ets Nkubili Alfred &amp; Sons (ENAS CAFFEX)</td>
<td>NKUBILI Alfred</td>
<td>KICUKIRO</td>
</tr>
<tr>
<td>8</td>
<td>Kivu Arabica Coffee Company (KACC)</td>
<td>SEMINEGA Jean Bosco</td>
<td>RUSIZI</td>
</tr>
<tr>
<td>9</td>
<td>Café Du Rwanda (CAFERWA)</td>
<td>GATARI Gibert</td>
<td>GASABO</td>
</tr>
<tr>
<td>10</td>
<td>Misozi Coffee</td>
<td>NKUNZIMANA J. De Dieu</td>
<td>KICUKIRO</td>
</tr>
<tr>
<td>11</td>
<td>Societe Commerce Representation Café (SOCOR CAFÉ)</td>
<td>GATARI Gibert</td>
<td>GASABO</td>
</tr>
<tr>
<td>12</td>
<td>SAASA Coffee (SACOF)</td>
<td>KAGIMBANYI Maggie</td>
<td>RUBAVU</td>
</tr>
<tr>
<td>13</td>
<td>Kayumbu Coffee Company (KAYCO)</td>
<td>KANINGU Christien</td>
<td>KAMONYI</td>
</tr>
<tr>
<td>14</td>
<td>Land of 1,000 Hills Coffee</td>
<td>GATARE Emmanuel</td>
<td>GAKENKE</td>
</tr>
<tr>
<td>15</td>
<td>Green Land Coffee Co. Ltd</td>
<td>MWUMVANEZA Jean Paul</td>
<td>GASABO</td>
</tr>
<tr>
<td>16</td>
<td>Ishema Coffee</td>
<td>HABIYAMBERE Sylvestre</td>
<td>NYAMASHEKE</td>
</tr>
<tr>
<td>17</td>
<td>Karengera Coffee</td>
<td>GATARI Gibert</td>
<td>GASABO</td>
</tr>
<tr>
<td>No.</td>
<td>Company Name</td>
<td>Contact Name</td>
<td>Location</td>
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