

**STRATEGIC FACTORS AND PERFORMANCE OF TEA  
INDUSTRY IN KENYA**

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# **Strategic Factors and Performance of Tea Industry in Kenya**

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the Degree of Doctor of Philosophy in Business Administration  
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## DECLARATION

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

Signature..... Date.....

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This thesis has been submitted for examination with our approval as university supervisors

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## **DEDICATION**

This thesis is dedicated to my dear wife and children for they sacrificed and ensured that I had ample time throughout the research period.

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## TABLE OF CONTENTS

<b>DECLARATION.....</b>	<b>ii</b>
<b>DEDICATION.....</b>	<b>iii</b>
<b>ACKNOWLEDGEMENT .....</b>	<b>iv</b>
<b>TABLE OF CONTENTS.....</b>	<b>v</b>
<b>LIST OF TABLES .....</b>	<b>xii</b>
<b>LIST OF FIGURES .....</b>	<b>xiv</b>
<b>LIST OF APPENDICES .....</b>	<b>xv</b>
<b>ABBREVIATIONS AND ACRONYMS .....</b>	<b>xvi</b>
<b>DEFINITION OF KEY TERMS .....</b>	<b>xviii</b>
<b>ABSTRACT.....</b>	<b>xx</b>
<b>CHAPTER ONE .....</b>	<b>1</b>
<b>INTRODUCTION.....</b>	<b>1</b>
1.1 Background to the Study.....	1
1.1.1 Global Perspective .....	4
1.1.2 Regional Perspective.....	5
1.1.3 Local Perspective .....	6
1.1.4 Performance of Tea Industry.....	9
1.1.5 Strategic Factors and Performance of Tea Sector in Kenya .....	10

1.1.6 Tea Industry in Mt. Kenya Region.....	11
1.2 Statement of the Problem.....	12
1.3 Objectives.....	13
1.3.1 General Objective.....	13
1.3.2 Specific Objectives.....	14
1.4 Research Hypotheses .....	14
1.5 Significance of the Study .....	14
1.6 Scope of the Study .....	16
1.7 Limitations of the Study.....	16
<b>CHAPTER TWO .....</b>	<b>17</b>
<b>LITERATURE REVIEW.....</b>	<b>17</b>
2.1 Introduction.....	17
2.2 Theoretical Review .....	17
2.2.1 Value Chain Analysis Theory .....	17
2.2.2 Diffusion of Innovations Theory.....	19
2.2.3 Generic Porter Strategies.....	20
2.2.4 Theory of the Industrial Market .....	21
2.2.5 The 7-S Framework of McKinsey.....	22
2.3 Conceptual Framework .....	24

2.3.1 Strategy for Adding Value .....	25
2.3.2 Cost-cutting Measures.....	28
2.3.3 Strategy for Technological Innovation.....	29
2.3.4 Marketing Techniques.....	30
2.3.5 Strategy for Implementation .....	31
2.3.6 Tea Industry Performance .....	32
2.4 Empirical Analysis .....	32
2.4.1 Tea Industry Value Addition and Performance .....	32
2.4.2 Cost-cutting Strategy and Results .....	33
2.4.3 Tea Industry Technological Innovation Strategy and Performance.....	34
2.4.4 Tea Industry Marketing Strategy and Performance .....	35
2.4.5 Tea Industry Implementation Strategy and Performance.....	36
2.5 Critique of Existing Literature .....	37
2.6 Research Disparities.....	38
2.7 Summary .....	38
<b>CHAPTER THREE .....</b>	<b>40</b>
<b>RESEARCH METHODOLOGY .....</b>	<b>40</b>
3.1 Introduction .....	40
3.2 Research Design.....	40



3.3 Research Philosophy .....	41
3.4 Target Population .....	42
3.5 Sampling Procedure and Sample Size .....	43
3.7 Data Collection Instruments.....	44
3.7.1 Questionnaires.....	44
3.7.2 Focus Group Interview.....	45
3.8 Pilot Study.....	46
3.8.1 Validity of the Research Instrument .....	46
3.8.2 Reliability of the Research Instrument.....	46
3.9 Data Collection Procedure .....	47
3.10 Data Analysis and Presentation.....	48
3.11 Diagnostic Tests .....	54
3.11.1 Normality Test .....	54
3.11.2 Test for Multicollinearity .....	54
3.11.3 Heteroscedasticity .....	54
3.11.4 Test for Autocorrelation.....	55
3.11.5 Linearity Test .....	55
<b>CHAPTER FOUR.....</b>	<b>56</b>
<b>RESEARCH FINDINGS AND DISCUSSIONS.....</b>	<b>56</b>

4.1 Introduction .....	56
4.2 Response Rate .....	56
4.3 Reliability and Validity .....	57
4.3.1 Reliability Test .....	57
4.3.2 Validity Test .....	58
4.4 Demographic Characteristics .....	59
4.4.1 Gender of Respondents .....	59
4.4.2 Duration Worked in the Industry .....	60
4.4.3 Position in the Company .....	60
4.4.4 Level of Education .....	61
4.4.5 Age of the Factory .....	62
4.5 Descriptive Statistics .....	62
4.5.1 Value Addition Strategy .....	62
4.5.2 Technological Innovation .....	66
4.5.3 Cost Reduction Strategy .....	69
4.5.4 Marketing Strategy .....	72
4.5.5 Implementation Strategy .....	75
4.5.6 Performance of the Tea Industry in Mount Kenya Region .....	77
4.6 Diagnostic Tests .....	79

4.6.1 Test for Normality .....	79
4.6.2 Multicollinearity Test .....	79
4.6.3 Heteroscedasticity Test .....	80
4.6.4 Test for Autocorrelation .....	81
4.6.5 Linearity Test .....	82
4.7 Correlation Analysis.....	83
4.8 Simple Linear Regression Analysis .....	85
4.8.1 Value Addition Strategy.....	86
4.8.2 Technology innovation strategy .....	88
4.8.3 Cost Reduction Strategy.....	90
4.8.4 Marketing Strategy.....	91
4.8.5 Implementation strategy.....	93
4.9 Multiple Linear Regression Analysis.....	95
4.10 Summary Hypotheses Testing.....	97
4.11 Model Optimization .....	99
4.12 Revised Conceptual Framework .....	99
<b>CHAPTER FIVE.....</b>	<b>101</b>
<b>SUMMARY, CONCLUSION AND RECOMMENDATIONS.....</b>	<b>101</b>
5.1 Introduction .....	101

5.2 Summary of the Key Findings .....	101
5.2.1 Value Addition Strategy.....	101
5.2.2 Technological Innovation Strategy .....	102
5.2.3 Cost Reduction Strategy.....	102
5.2.4 Marketing Strategy.....	102
5.2.5 Implementation Strategy .....	102
5.3 Conclusion .....	103
5.4 Policy Recommendations.....	104
5.4.1. Value Addition Strategy.....	104
5.4.2 Technology Innovation Strategy .....	104
5.4.3 Cost Reduction Strategy.....	105
5.4.4 Marketing Strategy.....	105
5.4.5 Implementation Strategy .....	106
5.5 Contribution to Theory.....	106
5.6 Areas for Further Research .....	107
<b>REFERENCES.....</b>	<b>108</b>
<b>APPENDICES .....</b>	<b>135</b>

## LIST OF TABLES

<b>Table 3.1:</b> Target Population.....	43
<b>Table 3.2:</b> Summary of Data Analysis .....	53
<b>Table 4.1:</b> Response Rate .....	56
<b>Table 4.2:</b> Reliability Statistics .....	57
<b>Table 4.3:</b> Validity Test Analysis.....	58
<b>Table 4.4:</b> Working Experience .....	60
<b>Table 4.5:</b> Age of the Factory.....	62
<b>Table 4.6:</b> Value Addition Strategy.....	63
<b>Table 4.7:</b> Technological Innovation .....	66
<b>Table 4.8:</b> Cost Reduction Strategy.....	70
<b>Table 4.9:</b> Marketing Strategy.....	73
<b>Table 4.10:</b> Implementation Strategy .....	75
<b>Table 4.11:</b> Performance of the Tea Industry.....	77
<b>Table 4.12:</b> Variance Inflation Factor .....	80
<b>Table 4.13:</b> Heteroscedasticity Results .....	81
<b>Table 4.14:</b> Test for Autocorrelation.....	81
<b>Table 4.15:</b> Correlation Matrix.....	84
<b>Table 4.16:</b> Model Fitness.....	86

<b>Table 4.17:</b> Analysis of Variance .....	86
<b>Table 4.18:</b> Value Addition Strategy and Performance t Tea Industry .....	87
<b>Table 4.19:</b> Model Fitness .....	88
<b>Table 4.20:</b> Analysis of Variance .....	88
<b>Table 4.21:</b> Technology Innovation Strategy and Performance of the Tea Industry	89
<b>Table 4.22:</b> Model Fitness .....	90
<b>Table 4.23:</b> Analysis of Variance .....	90
<b>Table 4.24:</b> Cost Reduction Strategy and Performance of the Tea Industry .....	90
<b>Table 4.25:</b> Model Fitness .....	91
<b>Table 4.26:</b> Analysis of Variance .....	92
<b>Table 4.27:</b> Marketing Strategy and Performance of the Tea Industry .....	92
<b>Table 4.28:</b> Model Fitness .....	93
<b>Table 4.29:</b> Analysis of Variance .....	93
<b>Table 4.30:</b> Implementation Strategy and Performance of the Tea Industry .....	94
<b>Table 4.31:</b> Model Fitness .....	95
<b>Table 4.32:</b> Analysis of Variance (ANOVA) .....	95
<b>Table 4.33:</b> Regression of Coefficients .....	96
<b>Table 4.34:</b> Summary of Hypotheses .....	98

## LIST OF FIGURES

<b>Figure 2.1:</b> Conceptual Framework .....	24
<b>Figure 4.1:</b> Gender of the Respondents.....	59
<b>Figure 4.2:</b> Positions .....	61
<b>Figure 4.3:</b> Level of Education .....	61
<b>Figure 4.4:</b> Tea Auction Price in Kenya 2011-2019 .....	78
<b>Figure 4.5:</b> Test for Normality .....	79
<b>Figure 4.6:</b> Linearity Test .....	82
<b>Figure 4.7:</b> Revised Conceptual Framework.....	100

## LIST OF APPENDICES

<b>Appendix I:</b> Letter of Introduction.....	135
<b>Appendix II:</b> NACOSTI Letter.....	136
<b>Appendix III:</b> Questionnaire for Respondents .....	138
<b>Appendix IV:</b> Focus Group Interview .....	155
<b>Appendix V:</b> List of Tea Processing Firms.....	157



## **ABBREVIATIONS AND ACRONYMS**

<b>AKIS</b>	Agricultural Knowledge and Information Systems
<b>ANOVA</b>	Analysis of Variance
<b>BPR</b>	Business Process Re- Engineering
<b>BSC</b>	Balance Score Card
<b>ERP</b>	Enterprise Resource Planning
<b>FAO</b>	Food and Agricultural Organization
<b>FAOSTAT</b>	Food and Agriculture Organization Corporate Statistical Database
<b>GDP</b>	Gross Domestic Product
<b>ICT</b>	Information Communication Technology
<b>IFC</b>	International Finance Corporation
<b>IPAR</b>	Institute of Policy Analysis and research
<b>IT</b>	Information Technology
<b>KMO</b>	Kaiser-Mayer-Oklin
<b>KTDA</b>	Kenya Tea Development Authority
<b>R &amp; D</b>	Research and Development
<b>SPSS</b>	Statistical Package for Social Sciences
<b>SSA</b>	Sub Saharan Africa
<b>TBK</b>	Tea Board of Kenya

<b>TRFK</b>	Tea Research Foundation of Kenya
<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>USD</b>	United States Dollar
<b>VAT</b>	Value-Added Tax
<b>VIF</b>	Variance Inflation Factor

## DEFINITION OF OPERATIONAL TERMS

<b>Cost reduction strategy</b>	Refers to the implementation of measures aimed at retaining quality of products at minimal cost (Dess, Lumpkin & Eisner, 2010). The cost leadership strategy in the study included production cost, labour cost and machine maintenance cost.
<b>Marketing Strategy</b>	the incorporation of marketing as part of the overall goals of the organization as well methods used to spread the word about tea products and services to potential customers both local and international (Tellis, 2004). The marketing strategy in the study included sales promotion, advertising and market access
<b>Performance</b>	Refers to the accomplishment of a given task measured against pre-set organizational goals in terms earnings, productivity as well in of execution of set strategies (Daft, 2002).
<b>Resource allocation</b>	Refers to a strategic use of available resources to the benefit and growth of a company (Ariyawardana, 2013).
<b>Strategic Decisions:</b>	Refers to decisions concerned with whole environment in which the firm operates. The decisions have major resources propositions of an organization and are more concerned with acquiring new resources and reallocating the existing ones. They deal with harmonizing organizational resource capabilities with the threats and opportunities (Jarillo, 2013).
<b>Strategic planning</b>	Refers to a recognizable set of activities designed to achieve organizational objectives and goals. It involves establishing and periodically confirming the organization's mission and corporate strategy, and developing broad plan of action needed to attain these goals and objectives as well as allocating resources on a

basis consistent with strategic directions (Dess, Lumpkin & Eisner, 2010).

**Strategic factors**

The strategic factors are operating procedures involving direction setting, resource allocation and monitoring of the business activities (Kavulya, Muturi, Rotich & Ogollah, 2018). The strategic factors in the study included value addition strategy, technological innovation strategy, cost reduction strategy, marketing strategy and strategic implementation

**Strategy implementation**

Refers to the execution of strategies that have been framed in the organizational operations to improve performance which include allocation of physical and human resources, staff motivation, leadership and control and commitment to organizational goals (Schaap, 2006).

**Technology Innovation strategy**

Refers to the process of developing new product innovations and processes significant to addition of value and cutting of cost to improve performance of tea (Bessant & Pavitt, 2007). The technological innovation strategy in the study included tea processing machines, lean management systems and e-trading

**Value Addition strategy**

Refers to the process of developing new product innovations and processes significant to addition of value and cutting of cost to improve performance of tea (De Silva, 2011). The value addition strategy in the study included branding tea, blending flavours and packaging style

## ABSTRACT

The global tea industry is lucrative and competitive, turning in billions of dollars annually but the prices small holders' tea producers receive fail to reflect the high quality of their produce. In Kenya, Tea industry has not been competitive. As a result, the earnings have not been commensurate with tea production efforts which have often attracted the wrath of farmers to the extent of tea picking boycotts, uprooting of tea bushes, destruction of factory property and even threatening the lives of tea industry managers. This phenomenon is attributed partly to the fact that the small-scale producers market their tea in bulk; semi-processed products and therefore fails to attract premium prices for their produce. As result strategic interventions are required for the tea industry to remain competitive. This study intended to examine strategic management practices that can determine performance of tea industry in Mount Kenya region so that it can remain competitive. The specific objectives were to determine how value addition, cost reduction strategies, technology innovations, market strategy and strategic implementation related to the performance of the tea industry in Mt Kenya region in Kenya. The study was guided by value chain theory, Theory of Diffusion of Innovations, cost leadership theory, Industrial marketing theory and M'cKinsey's 7S framework theory. The descriptive and explanatory research design was used. The target population was 117 management teams comprising of regional management team, regional accountant, operations manager, production manager, auditor, production managers, factory accountants, training managers and field coordinators. The study conducted a census and thus all the 117 respondents were included in the study. Reliability was examined using pilot study and internal consistency test. Regression coefficients revealed a positive and significant relationship between value addition strategy and performance of the tea industry ( $\beta=0.987$ ,  $p=0.000$ ). It was found a positive and significant relationship exists between technology innovation strategy and performance of the tea industry ( $\beta=0.887$ ,  $p=0.000$ ). Further, the regression coefficients revealed a positive and significant relationship between cost reduction strategy and performance of the tea industry ( $\beta=0.978$ ,  $p=0.000$ ). The regression coefficients showed a positive and significant relationship between marketing strategy and performance of the tea industry ( $\beta=0.844$ ,  $p=0.000$ ). In addition, the regression coefficients results indicated that a positive and significant relationship exists between implementation strategy and performance of the tea industry ( $\beta=0.909$ ,  $p=0.000$ ). The study recommended that tea factories should provide incentives for research and development on adoption of newest technology in the market to support cost reduction and improve quality. Efforts should be put to ensure technological innovation is aggressively and continuously adopted across the board in tea industry in Kenya. Factory management need to create enhanced and effective marketing strategies which can enable the farmers get higher income due to better prices for their tea. It is recommended that tea industry continue to create sustainable business linkages and collaborations with the worldwide market so as to get better prices for the farmers. In general, new knowledge brought is that value addition strategy, technology innovation strategy, cost reduction strategy, marketing strategy and implementation strategy can determine 84.1% variations in the performance of the tea industry in the Mount Kenya region.

## **CHAPTER ONE**

### **INTRODUCTION**

The chapter presents the background of the study, statement of the problem, research objectives, hypotheses, significance, scope and limitations of the study. Each section is comprehensively examined to bring its relevance for inclusion in the study.

#### **1.1 Background to the Study**

The performance of any business unit in the World is based on strategies that give a competitive advantage over other firms (Chatzoglou & Chatzoudes, 2018). According to Kuloba, Gicheru and Maiyo (2020), the performance of an organization can be based on financial and non-financial performance. Financial performance is the most adopted measure of performance and profitability is the key performance measure. The employment of both financial and non-financial to measure performance portrays the ideal situation of the extent of performance.

Organizational performance incorporates how well an organization achieves its market-oriented and financial goals (Burugo & Owour, 2017). The organization's performance is significant to the shareholders and signifies that their funds invested in the organization are well utilized (Memia, 2018). The most performing enterprises are more competitive. The strategic factors as indicated by Adim and Ihunda (2018), Burugo and Owour (2017), Kang and Jeong (2019), Kaburu and Theuri (2017), Kavulya, Muturi, Rotich and Ogollah (2018), Wanjira, Kubaison and Nzomo (2016) significantly influence the performance.

The strategic factors are operating procedures involving direction setting, resource allocation and monitoring of the business activities (Kavulya, Muturi, Rotich & Ogollah, 2018). Strategic techniques involve a whole process through which a decision is taken to choose a particular option from various alternatives (Imran, Hamid & Aziz, 2018). Some of these strategic factors make up a part of the more prominent strategic policies of the company (Littlewood & Holt, 2018). Hence, substantial emphasis is given to them and decision-makers follow due diligence

before coming up with a final strategic factor (Pampurini & Quaranta, 2018). Strategic factors involve endeavors to fit the organization with the changing environment in the most beneficial way (Ogbechie, 2018).

Strategic factors define the purpose of the organization and the plans and actions to achieve that purpose. Sharabati and Fuqaha (2014) noted that strategic factors had been regarded as the most crucial practice which differentiates organizations from each other. Generally, strategic factors can improve efficiency in various organizations (Kharub, Mor & Sharma, 2019). Strategic factors, in general, gives the overall direction to business entities and industries to ensure their competitiveness in any given market (Porter, 2009). The application of strategic factors is present across various organizational fields. The strategic factors can comprise of value addition strategy, technological innovation strategy, cost reduction strategy, marketing strategy and strategic implementation (Kiloh, Magutu & Onger, 2020; Muigai, 2018; Ngando, Anyika & Ndegwa, 2020; Okoyo, 2019; Peng, 2017; Skinner, 2018; Yang, Ishtiaq & Anwar, 2018; Yarger, 2016).

Value addition strategy entails improving the standard of the product or service being offered (Kinyuira, 2018). Value-adding includes changing or transforming a product from its original state to a more valuable state (Li, 2017). It can also entail the extra features a company adds to a product or service to give it a sense of increased value to customers or clients. Changing the product design or providing additional accompaniments increases consumer perceived value (Muigai, 2018). The strategy includes setting goods and services prices based on the consumer-perceived value of the products (Ngando, Anyika & Ndegwa, 2020). Adopting a value addition strategy can form the basis of increasing the competitiveness of the products, thus increasing its revenue generation.

Technology innovation strategy incorporates developing new product innovations and processes significant to adding value and cutting costs to improve performance (Ondego, 2016). Technology innovation strategy is a way an organization determines its primary objectives, goals and the way it accepts and adopts necessary steps of actions to enhance the efficiency in the factors of production (Kharub, Mor &

Sharma, 2019). The technology innovation strategy comprises product innovation, technological innovation and customer service innovation (Okoyo, 2019). The technological innovation strategy attempts to automate firm processes to improve operational efficiency while reducing operating expenses (Wanjira, Kubaison & Nzomo, 2016).

A cost leadership strategy combines the actions taken to produce goods or services with the quality acceptable to customers at the lowest cost relative to that of competitors (Yang Ishtiaq & Anwar, 2018). Firms that successfully pursue cost leadership strategy emphasize cost minimization, look for the raw materials' competitive sourcing and introduce modern technology (Priscillah, 2019). Any organization that can be a leader in cost will always have an advantage in market entry and customer retention. Kuloba, Gicheru and Maiyo (2020) revealed that cost leadership tends to be more competitor-oriented than customer-oriented since the company is looking for ways to increase profitability.

A marketing strategy includes techniques employed by the organization to increase the customer base (Terin, Yıldırım, Aksoy & Sarı, 2018). The retention and gaining of new customers are impacted by the strategies employed within an organization to increase the satisfaction of the employees (Skinner, 2018). A marketing strategy sets the overall direction and goals for the marketing. It is different from a marketing plan, which outlines the specific actions to implement the marketing strategy. The marketing strategy entails an integrated set of creating and capturing value over long periods (Mugendi, Gichohi, & Moguche, 2019).

The implementation strategy aims at operationalizing the strategic goals within the unique framework (Pampurini & Quaranta, 2018). It includes the execution of strategies framed in the organizational operations to improve performance, including allocation of physical and human resources, staff motivation, leadership and control, and commitment to organizational goals (Seth & Olori, 2017). Leaders should be at the forefront in dealing with sensitive issues in strategy such as resource mobilization, restructuring, culture changes, technological changes, process changes, and leadership changes (Yarger, 2016). A well-developed implementation strategy



with proper execution result in the organization's high performance (Ocasio & Radoynovska, 2019; Peng, 2017).

### **1.1.1 Global Perspective**

Chavez, Gimenez, Fynes, Wiengarten and Yu (2013) studied an Australian business and indicated that strategic factors impact operational performance. Moreover, one of the core business processes improving the competitive advantage of the team firms in Finland is customer relationship management, cost management, product development management and supply chain management (Laite, 2018). Moreover, in Brazil, it is reported by Pighinelli, Schaffer and Boateng (2018) that the performance of tea production in the country is influenced significantly by value addition strategy, marketing strategy and adoption of technology. The businesses that operate in Turkey should manipulate adequate marketing mixes, which highlight the orientation of the product and deliver quality products at a lower price compared to other economies to have a greater competitive advantage (Kamasa & Yavuz, 2016). Taj (2008) found that Chinese firms emphasize scheduling, control, and machine maintenance to increase tea production.

In Sri Lanka, the Government gives more prominence to value-added tea (VAT) production strategy revitalizing the tea industry (Ariyawardana, 2013). The strategy of exporting more value-added tea contributes to enhancing Sri Lanka's competitiveness in the global tea market. Although Sri Lanka has introduced value-added tea to different international markets, the quantity and the extent of value addition are not considered to fulfil the present requirement of the global market. Thus, Sri Lankan tea-producing firms have to enhance their core resources to achieve a competitive advantage. Achieving a cost leadership strategy for Sri Lanka would be difficult due to its cost structure with the highest and lowest productivity. Accordingly, product differentiation achieved through value-addition is often the best strategy for Sri Lanka to enhance its competitiveness.

In China, tea producing and processing authorities are required to implement the high-quality production of tea through value addition strategies (Li, 2017). Value addition of tea is done to fetch higher prices in the international market (Liu, Wang,

Zhang & Zhao, 2015). Moreover, tea-producing firms engage in strategic cost management practice by blending value chain analysis, strategic positioning analysis and cost driver analysis. Value chain analysis occupies a significant role in enhancing the strategic competitiveness of China tea in the global market (Zeng, Lu, Campbell & Ren, 2013).

India is the fourth largest producer of tea in the world. However, the country lacks effective marketing strategies (Roy, 2013). The lack of effective marketing strategies in the global market has adversely affected the competitiveness of Indian tea leading to a drastic reduction of its total revenue from the crop (Gunathilaka & Tularam, 2016). There is fierce competition abroad, particularly in India's on account of high cost of production and poor quality, and changing consumer demand (Khoi, Lan & Huong, 2015). As a result, the Indian Government has been supporting the tea sector, particularly through a value addition strategy to enhance the performance rating of the product in the global market (Santra, 2014).

### **1.1.2 Regional Perspective**

In Sub Saharan Africa, tea productivity and performance have often been associated with market failures, such as inefficiencies in input and output markets, flawed land tenure systems, imperfect labour, and credit markets and low technology adoption (Bergek *et al.*, 2008). This therefore resonates with the argument that improving tea production in tea producing countries in SSA requires sound strategic management practices. The management of tea sector is characterized by inefficiency, low technology, semi processed and low value- added products for exports which are vulnerable to fluctuations in commodity prices, high degree of price risk and declining prices (United Nations Conference on Trade and Development (UNCTAD), 2009).

Most African countries export tea in raw form with little or no value addition at all. Value addition results in quality improvements matched by price increases. As a result, implementation of strategic options in the in the perspective of the prevailing environment is an inevitable undertaking to cushion producers against price volatility and serial declines in price volatility (Deaton & Laroque, 2003).

In Rwanda, there has been an attempt to improve tea productivity and competitiveness through adoption of Tea New Tea Sector Strategy. The New Tea Sector Strategy reviews the performance of the tea sector in Rwanda in line with the national economic and the agricultural modernisation policies as formulated in Vision 2020. The paper proposes tea production targets and strategies that enhance the overall performance by increasing productivity, quality and fast growth of the tea industry (Basu Majumder, Bera & Rajan, 2010). As a result of tea quality produced in Rwanda, Rwanda tea fetches the highest prices compared to other African tea producing countries. Pricing strategies have enabled Rwandan tea to compete favourably in the international market.

Malawi has been growing tea on a commercial scale for over a century, dating back to the 1880s. In terms of export value, Malawi is the 13th largest tea producer in the world and the second largest producer in Africa after Kenya. In 2011, Malawi exported 46,000 tonnes of tea, valued at US\$86.3 million (FAOSTAT, 2014). In 2012, export volume fell to 41,835 but since value increased, export earnings only fell by US\$0.3 million (FAO, 2015).

However, tea industry is poorly developed in Malawi a situation attributed to slow adoption of technological innovation strategies in tea farming and production. The country also experiences high processing costs due to obsolete technology with little cost reduction strategies (Taulo & Sebitosi, 2015). Moreover, the bulk of tea in Malawi is exported in raw form with little value addition to the commodity.

In Tanzania, the slow uptake of technological innovation strategies has contributed to the low yield's tea production (Loconto & Simbua, 2016). Tea Research Institute of Tanzania (2013) aims to support the development of both small and large-scale producers through appropriate, cost-effective, high-quality research and technology transfer, to ensure the sustainability of the tea industry (Munishi, Mgelwa & Guan, 2017).

### **1.1.3 Local Perspective**

Strategic factors have not been practiced wholly in the Kenyan tea industry, making Kenyan tea lose its competitiveness (Namu, Kaimba, Muriithi & Nkari, 2014). The performance of tea processing firms in Kenya has been declining from 2013 to 2018 (KTDA, 2019). Tea exports to Kenya's major markets dropped by 30 percent in 2018 compared to the preceding years of 2017 and 2016 (KTDA, 2019). The performance of tea industry can be enhanced by applying the appropriate strategic factors, but it has not been applicable (Sachitra & Chong, 2016). To be profitable in a competitive environment, a tea firm must pay continual attention to reducing the costs of production, promoting value addition, improving marketing strategies and differentiating its products offering it.

The tea industry plays a key role in the agriculture sector and Kenya's economy at large, with tea output contributing about 11% of the agriculture sector's contribution to Gross Domestic Product (GDP). Kenya earned KES 125.25 billion from tea exports in 2015, an increase of 23% from KES 101.11 billion recorded in 2014 (Maina, 2018). Earnings from the domestic market stood at K.sh 14.6 billion (representing 7% of the total production), taking the total industry earnings to KES 139.85 billion (KTDA, 2019). It is also notable that among the many of Kenya's export crops, tea is one of those crops that have maintained an upward trend in production and export earnings.

Despite tea production contributing immensely to the Kenyan Gross Domestic product, the high costs of production, flooded market destination and limited value addition to the product threatens its survival. The cost of production of tea is considered high when compared to other tea producing countries (Burugo & Owour, 2017). The cost of production in Kenya is USD 1.33 per Kg of made tea. This compares poorly with other tea producing countries like Vietnam (USD 0.81 per Kg), Indonesia (USD 0.58 per Kg), Rwanda (USD 1.32 per Kg), Uganda (USD 1.20 per Kg), Tanzania (USD 1.16 per Kg), Malawi (USD 1.14 per Kg) and Zimbabwe (USD 1.11 per Kg).

The main factors contributing to the high cost of production are; high labour demand, high cost of farm inputs particularly fertilizers, high cost of energy/fuel at the

factories, high cost of transport due to poor road and rail transport system and numerous taxes and levies (World Bank, 2010). The escalating costs of tea production calls for effective cost reduction strategies to countercheck the alarming situation.

Moreover, the selling of tea in bulk has been common practice in Kenya and the practice is quickly losing popularity in the face of growing preference to value added tea products. Value addition strategy is therefore an alternative strategy not only to satisfy changing consumer needs but more fundamentally to increase the competitiveness of Kenyan tea in the global market (Omete, 2015). Value addition includes processing, blending, branding, quality certification and accreditation, as well as farm-level quality improvements (Gayani, 2006).

According to the Tea Research Foundation of Kenya (2011) value addition may be done on tea through quality management, positioning, packaging and marketing strategies. In the tea industry value addition has played an important role in the overall expansion and growth; it adds significant increase in producer returns when supported by comprehensive marketing strategies (Kaburu & Theuri, 2017). The growth of revenue and profits in the value-added sector of the market is very high particularly when tea is prepared and presented as an end product to the consumer.

Empirical studies have also indicated that, despite the prosperity of tea industry in Kenya, the mechanization of the sector is still very low (Kenya Tea Growers Association, 2016). Nonetheless, the improved technologies, including improved clones, have increased tea yields in Kenya from an average of 1,500 to 2,600 kg of made tea per hectare per year on the large estates and from an average of 600 to 2000 kg of made tea per hectare per year under the smallholder production system. Despite the major tea research breakthroughs, transfer of improved technological strategic factors to farmers is a major challenge for both researchers and technology transfer agencies (Tea Research Foundation of Kenya, 2011).

#### **1.1.4 Performance of Tea Industry**

The idea of performance is quite general, and the meaning of the term shifts depending on the perspective and requirements of the one who is utilizing it (Chatzoglou & Chatzoudes, 2018). Both financial as well as nonfinancial indicators can be considered part of an industry's performance, as is the case with the tea business (Kavulya, Muturi, Rotich & Ogollah, 2018; Kiloh, Magutu & Onger, 2020; Kharub, Mor & Sharma, 2019).

Non-financial measures of performance, also known as objective measures, pertain to operational success indicators in the long term, such as market share, quality, customer and employee satisfaction, company image, customer loyalty, internal business process efficiency, new product development, and markup. Financial measures of performance, also known as subjective measures, relate to economic indicators, such as profitability, sales growth, return on assets or return on sales (Agwu, 2018). (Imran, Hamid & Aziz, 2018; Kang & Jeong, 2019).

Due to the ever-changing nature of the surrounding environment, relying solely on financial metrics as a yardstick for performance evaluation is not an adequate strategy (Ngando, Anyika & Ndegwa, 2020). When measuring success, it is important to consider both financial and non-financial aspects, because doing so paints a more accurate picture of how well the tea sector is doing overall (Kemunto, 2015).

According to Seth and Olori (2017), firms should not rely just on financial measurements of performance but should instead embrace non-financial indicators as well. These non-financial measures might include things like client base, number of branches, and market share, amongst other things. Because of this, it is necessary for the success of the company to be evaluated by both financial and non-financial metrics simultaneously. Performance is a dynamic notion that explains the successes of a given activity with effectiveness and efficiency that exceeds the ordinary existing standards. Performance can be measured in a variety of ways (Auma, 2019).

Since 2013, tea processing companies in Kenya have seen a decline in their overall performance, which has continued into 2018. (KTDA, 2019).

When compared to the previous two years, shipments of tea to Kenya's primary markets were down by thirty percent in 2018. (KTDA, 2019). According to Maina (2018), the failure to adequately implement strategic considerations was to blame for the deterioration of Kenyan tea's performance in the worldwide market. A strategy is devised with the intention of ensuring that the fundamental goals of a company are accomplished by means of appropriate execution by the management (Velani, 2018).

### **1.1.5 Strategic Factors and Performance of Tea Sector in Kenya**

Strategic factors have not been employed entirely in the Kenyan tea industry, making it lose competitiveness. The performance of tea processing firms in Kenya has declined (KTDA, 2019). Tea exports to Kenya's major markets dropped by 30 percent in 2018 compared to the preceding years of 2017 and 2016 (KTDA, 2019). Economic Survey (2015) indicated that demand for Kenyan tea in the global market declined and the quantity exported increased by 2.3% in 2014, creating an oversupply of tea in the global market. As a result, the prices remained suppressed, eroding its competitiveness.

Mbui (2016) asserts Kenyan tea exports have been constrained by unfavourable international terms of trade, in particular, Kenya's tea exports are still dominated by primary agricultural products. Thus, strategic factors such as value addition strategy, technological innovation strategy, cost reduction strategy, marketing strategy, and implementation strategy can be the foundation for increasing the tea sector's performance in Kenya. Kenyan tea is applauded globally as a high-quality product made available all year round and it is principally used for blending teas from other origins.

The strategic factors are operating procedures involving direction setting, resource allocation and monitoring of the business activities (Kavulya, Muturi, Rotich & Ogollah, 2018). Strategic techniques involve a whole process through which a

decision is taken to choose a particular option from various alternatives (Imran, Hamid & Aziz, 2018).

A study conducted by Maina (2018) attributed the decrease in the performance of Kenya tea in the global market to inadequate implementation of strategic factors. A strategy is designed to ensure that the basic objectives of the organization are achieved through appropriate execution by the management (Velani, 2018). The tea sector strategic factors have not been practiced wholly in the Kenyan tea industry, making Kenyan tea lose its competitiveness, as confirmed by the KTDA (2019), who observed that in 2017, a decline of 15% in market share was experienced as compared to the year 2016. Effective strategies need to be adopted to ensure the tea sector thrives because it contributes significantly to economic growth.

#### **1.1.6 Tea Industry in Mt. Kenya Region**

There are several tea factories spread around Mt Kenya Region. The main areas that boast quite a number of tea industries include Meru, Embu, Nyeri and Kirinyaga. Their factory operations involve activities from attaining raw materials from the supplier who doubles up as the shareholder, processing and packaging of the leaf to selling the final product to the customer. The tea farmers are then given monthly income on their delivered produce and a yearly bonus (Kemunto, 2015).

In Mt Kenya region, there has been uprooting of tea bushes, tea picking boycotts, destruction of factory infrastructure besides threatening the life of factory managers in Mt Kenya region once the bonuses are announced year after year (Munene, 2016). Moreover, the low earnings have threatened the envisaged leading position of tea industry in employment creation, income generation and foreign exchange earnings, in Vision, 2030 (GoK, 2007). Against this backdrop there is need to identify significant strategic approaches needed in the management of the entire tea industry to reverse the situation. Despite the key role played by the tea sector, this sector has been under threat due to ever escalating costs of production in terms of labour costs, energy costs, and even heavy taxation imposed to it (Kimathi & Muriuki, 2012).



## **1.2 Statement of the Problem**

Over time, the declining tea prices with resultant meager Farmer earnings have generated heated politics, negative publicity, disenfranchised farmers, sporadic strikes, uprooting of Tea Bushes, and neglect of Tea farms (KTDA, 2019). Tea bonus payments are no longer celebrated and have become battlegrounds between farmers and management for failure to meet their expectations. This poses a serious threat to further growth of the Tea Industry, wealth creation, job creation, and other economic activities threatening the Tea Industry's survival in Mt Kenya. The performance of tea processing firms in Kenya has been declining from 2013 to 2018 (KTDA, 2019). Tea exports to Kenya's major markets dropped by 30 percent in 2018 compared to 2017 and 2016 (KTDA, 2019).

Moreover, the cost of tea production in Kenya has been high compared to other tea-producing countries. The cost of production in Kenya stands at USD 1.33 per Kg of made tea in comparison to other tea producing countries. (Kaburu & Theuri, 2017) listed them in order of production with Vietnam leading with (USD 0.81 per Kg), followed by Indonesia (USD 0.58 per Kg), Rwanda (USD 1.32 per Kg), Uganda (USD 1.20 per Kg), Tanzania (USD 1.16 per Kg), Malawi (USD 1.14 per Kg) and Zimbabwe (USD 1.11 per Kg) respectively.

The tea sector's strategic factors have not been practiced wholly in the Kenyan tea industry, making Kenyan tea lose its competitiveness, as confirmed by the KTDA (2019), who noted that in 2017, it posted a 15% in KTDA market share as compared to the year 2016. A study conducted by Maina (2018) attributed the decrease in the performance of Kenya tea in the global market to inadequate implementation of strategic factors. A strategy is designed to ensure that the organization's basic objectives are achieved through appropriate execution by the management (Velani, 2018).

There have been scholarly attempts to examine strategies that can help improve the tea industry's performance. The study by Mbui (2016) was limited to strategies on value addition, while the study by Ongo'nga and Ochieng (2013) was limited to innovation strategies, specifically mechanized harvesting to boost earnings. While

Omari (2015) concentrated on marketing and technology as strategic interventions to improve the export performance of the tea industry in large scale tea farming. Further, Namu and Kiamba (2014) observed that the performance of the tea industry in Embu County was limited using the cost reduction strategies. In a similar vein, the Odhiambo's (2014) noted the value of adopting tea industry's strategic implementation to improve performance. The studies covered factors that could be used to judge how well the tea industry was doing, which was the most significant omission that was found. It is possible that this will not provide adequate strategic solutions to the problems caused by the tea industry's poor performance.

There is a need for an approach that takes a holistic view, in which different strategies are evaluated to determine the extent to which they have the potential to revolutionize the tea industry. Therefore, the knowledge gap is presented in the conceptual, contextual, and methodological gaps. The contextual gap in the reviewed literature results from some studies conducted outside the Mount Kenya region.

The conceptual gap is that none of those studies particularly did not examine the constructs addressed by the study on the performance of the tea industry in Mount Kenya Region, Kenya. The methodological gap exists in the data type, research design, and sampling techniques. Some of the studies only applied the descriptive research design that does not aim to examine the relationship of the variables. Thus, to bridge this gap, the current study was conducted.

### **1.3 Objectives**

#### **1.3.1 General Objective**

The general objective of the study was to examine the influence of strategic factors on performance of tea industry in Kenya.

### **1.3.2 Specific Objectives**

This study was guided by the following specific objectives;

- i. To establish the influence of value addition strategy on performance of tea industry in Mount Kenya Region, Kenya
- ii. To investigate the influence of technological innovation strategy on performance of the tea industry in Mount Kenya Region, Kenya
- iii. To establish the influence of cost reduction strategy on performance of tea industry in Mount Kenya Region, Kenya
- iv. To determine the influence of marketing strategy on performance of the tea industry in Mount Kenya Region, Kenya
- v. To examine the influence of implementation strategy on performance of tea industry in Mount Kenya Region, Kenya

### **1.4 Research Hypotheses**

**H<sub>01</sub>:** Value addition strategy has no significant influence on performance of the tea industry in Mount Kenya Region, Kenya

**H<sub>02</sub>:** Technological Innovation has no significant influence on performance of tea industry in Mount Kenya Region, Kenya

**H<sub>03</sub>:** Strategic cost management has no significant influence on performance of tea industry in Mount Kenya Region, Kenya

**H<sub>04</sub>:** Marketing strategies has no significant influence on performance of tea industry in Mount Kenya Region, Kenya

**H<sub>05</sub>:** Implementation strategy has no significant influence on performance of tea industry in Mount Kenya Region, Kenya

### **1.5 Significance of the Study**

The study is anticipated to inform policy on interventions that need to be implemented to make tea farming sustainable in light of declining producer prices.

This may salvage the smallholder tea producers from switching to alternative crop production and thus continue to contribute to foreign exchange earnings for the country and provide direct employment in rural areas. Consequently, the Kenya Tea Development Agency may use the findings of this study to realize better returns through value addition to attract premium prices and cushion their products to price fluctuations; this may ensure the tea farmers get value for their products. This may catalyse the industry's growth and performance, resulting in more production, more employment, and more foreign exchange earnings for the country.

The study findings are expected to be significant to the management. The research will guide the administration on the important role of strategy implementation hence ensuring more focus and resources are channelled towards strategy implementation. Thus, the companies can remain relevant and competitive through enhanced and improved performance. The study results, particularly on cost reduction strategies, may inform the management tea producing firms to employ efficient processes in the entire value chain to reduce unit costs of production in the sector.

The tea-producing firms may also reap the benefits of using technological innovations, including automated tea processing machines, enhancing production efficiencies, and reducing operational costs. The results may also improve the global marketing strategies of tea firms. Partnerships, proper licensing, and franchising are important for firms selling in the worldwide market.

Through the Tea Board of Kenya (TBK), the government may benefit from this study by identifying whether the industry performance is affected by strategic factors adopted by various tea companies/factories. The study may inform the regulator on the best policies they can recommend to the industry. Therefore, they may obtain guidance from this study in designing appropriate policies that may regulate sector participation.

The study will add to the body of knowledge and benchmark future researchers. Scholars may benefit from this study as it may add to the knowledge concerning strategy implementation and performance. The study findings may be of great importance to the researchers, as they may contribute to strategic management

theories and practical knowledge. Future researchers and those in academia, principally the universities, are expected to use the findings of this study as a basis for further research to fill the gaps identified and as a source of new knowledge.

### **1.6 Scope of the Study**

The study examined the strategic factors on performance of tea industry in Kenya by focusing on the influence of value addition strategy, technological innovation strategy, cost reduction strategy, marketing strategy and implementation strategy performance of tea Industry in Mount Kenya Region, Kenya. The study focused on 16 factories in Mt Kenya Region which covers Meru, Embu and Kirinyaga Counties managed by KTDA.

### **1.7 Limitations of the Study**

The study findings are limited to tea industries in Mount Kenya Region and may be generalizable to other tea industries that might be facing similar challenges from those highlighted in this study. There was difficulty in gaining access to the sampled respondents because they were not only busy but also suspicious of the intention of information to be given. Further, there was difficulty in gauging the objectivity of the respondents in responding to the research instruments especially owing to the information sought by the study because some of the top managers delegated their juniors as respondents. These limitations were overcome by obtaining official consent to carry out this study among the sampled tea industries and assuring the respondents that confidentiality would be maintained and the information used for academic purposes only.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The theoretical and empirical literature relevant to the study's topic is highlighted in this chapter. The theoretical framework, conceptual framework, and theories that assist export performance are among them. Value chain theory, Theory of Diffusion of Innovations, cost leadership theory, Industrial marketing theory, and McKinsey's 7S framework theory drove the research. Value addition, technical innovation, marketing tactics, cost reduction, and implementation strategy in connection to performance were considered as independent variables. The literature was analyzed and research gaps were identified.

#### **2.2 Theoretical Review**

Value chain theory, the Theory of Diffusion of Innovations, cost leadership theory, industrial marketing theory, and McKinsey's 7S framework theory drove this research.

##### **2.2.1 Value Chain Analysis Theory**

In 1985, Harvard University Professor Michael Porter proposed value chain analysis (Kaplinsky & Readman, 2000). Value chain analysis, according to Porter, is a beneficial technique for companies looking to obtain a competitive advantage. A value chain is a diagram that depicts the activities that are required to offer a service or a product to a consumer (Dekker, 2003). Porter (1985) presents a generic value chain model in the setting of a regular manufacturing company. It encompasses the major operations that have a direct impact on the value of a service or a product. Inbound logistics, operations, outbound logistics, marketing, sales, and service are all included.

Support activities include the firm's infrastructure, human resource management, technological development, and procurement. It shows how a product gains value as

it progresses through the value chain, including design, production, marketing, delivery, and service to customers, as well as supporting activities targeted at gaining a competitive edge (Dess, G.Lumpkin & Taylor, 2008). The value chain analysis illustrates how firms take raw materials as input, add value to them through various processes, and then sell finished products to customers (Capon, 2008). In the face of fierce competition in the corporate world, this tries to meet client requests. The tea industry is fiercely competitive, to the point where some tea growers, such as South Africa, Malawi, and, most significantly, Kenya, may be forced out.

In order to stay afloat in the Tea business, value addition has been highlighted as a potential option. As a manufacturing industry, the tea industry fits into the manufacturing sector outlined in Porter's value chain analysis (Fitter & Kaplinksy, 2001). The key operations in the value chain provide value to the product directly, particularly in design, production, marketing, and delivery to clients, and they combine with value-adding variables such as packaging, blending, and branding (Schmitz, 2005). Different tea packaging provides customers with a variety of options based on their purchasing power and convenience; blending provides customers with a variety of tea qualities, which may increase market share and fetch competitive prices; and tea industry branding is likely to match changing consumer behavior, which may be in line with customer demands (Fearne, Garcia Martinez & Dent, 2012).

The theory was shown to be relevant to the variable value addition approach used in the current study. One of the most effective techniques for increasing net profitability is to add value to tea goods. Value-added methods open new markets, increase public awareness of the company, and lengthen the marketing season, allowing businesses to take a larger proportion of the market. Because there are fewer actors in the marketing chain, companies who apply product value addition tactics earn more money. The value chain analysis can look at actions in the manufacturing chain that create value, allowing tea goods to withstand the dynamic competitive tea market. Value chain analysis has been suggested to be beneficial because it is vital for recognizing organizational, tactical, and strategic difficulties in business; it can help the business comprehend possible sources of competitive advantage; and it can be

used to any business. As a result, the theory-based goal one is to determine the impact of value addition strategy on tea sector performance in Kenya's Mount Kenya region.

### **2.2.2 Diffusion of Innovations Theory**

In 1995, Everett Rogers was a proponent of the diffusion of innovation hypothesis. The idea explains how a change is communicated through certain channels throughout time among members of social systems, and how this theory explains the spread of innovations (Talebian & Mishra, 2018). A refusal to adopt an innovation entails dismissing the offered new concept. When compared to institutions that rely on other companies to develop for them to replicate, a company with high innovation processes performs better (Rogers 2003). According to the theory, innovation is defined as the production and transformation of new knowledge into new products, processes, or services that suit market needs (Aizstrauta, Ginters & Eroles, 2015). When innovation levels are strong, the firm is able to develop a new business outlook and becomes a key source of corporate expansion and growth, resulting in increased profitability.

An organization's ability to innovate is critical, and it can be used to outsmart competitors and achieve a competitive advantage. The idea assumes that relative advantage, complexity, compatibility, observability, and reliability are all factors in innovation (Rogers, 1995). According to the theory, the relative advantage is the degree to which an innovation is seen as superior to the idea it replaces. When the newly implemented systems are thought to provide greater benefits than the existing ones, a persuasive comparative advantage will emerge (Rogers, 1995). Similarly, the theory states that before an invention is implemented, management and other stakeholders must review it and determine how difficult it is to understand and implement by all parties involved (complexity) (Atwell, Schulte & Westphal, 2009).

Rodgers explained that before an innovation is implemented in an organization, it must be thoroughly tested before committing to its adoption (reliability). Furthermore, the idea argues that any innovation intended for introduction into the organization must produce a visible result (observability). Compatibility also refers



to the degree to which an invention achieves the greatest success when users may easily embrace it and replace an old product for the better (Thomas & Rogers, 1998). The method an organization establishes its core objectives, aims, and accepts and adopts required procedures to improve the efficiency of the factors of production is known as innovation strategy (Kharub, Mor & Sharma, 2019).

The hypothesis is applicable to the current research. The thesis demonstrates how important innovation is to a company and how it can be leveraged to outsmart competitors and acquire a competitive edge. The theory also suggests that any change in an organization should be tested first to ensure that it will be successful in the long run. The development of new product innovations and processes that add value and reduce costs to improve performance is part of the technology innovation strategy (Ondego, 2016). Within the tea industry, a technology innovation strategy can be defined as a method by which an organization establishes its major objectives, aims, and how it accepts and implements necessary steps to improve the efficiency of its production aspects. The technical innovation approach aims to automate company processes in order to increase operational efficiency while lowering costs. As a result, the diffusion of innovations hypothesis influenced the current study's technology innovation strategy.

### **2.2.3 Generic Porter Strategies**

Porter created Porter's Generic Strategies (1980). Porter's (1980) model of generic strategies includes a cost leadership strategy, which provides practitioners with an analytical tool for evaluating industries and competitors. Managers, consultants to managers, professors of management, security and analysts, or other observers wanting to understand and foresee company success or failure, or government officials looking to comprehend competitiveness in order to shape public policy, are all implied by Porter (Barney, 2014). Firms that pursue cost leadership seek to gain a competitive advantage by achieving the lowest cost in the industry (Finkelstein, Hambrick & Cannella, 2009).

The theory is considered relevant to support the current study. A tea company that pursues a cost leadership strategy achieves a low-cost position by focusing on

aggressive construction of efficient-scale facilities, aggressive pursuit of cost reductions from experience, tight cost and overhead control, avoidance of marginal customer accounts, and cost minimization in areas such as R&D, services, salesforce, and advertising (Porter, 1980). As a result, when investigating cost reduction measures in the tea business to increase performance, the cost leadership strategy was critical. The third theory-based goal is to determine the impact of cost-cutting strategies on the performance of the tea sector in Kenya's Mount Kenya region.

#### **2.2.4 Theory of the Industrial Market**

Through the writings of Tirole, the industrial market hypothesis was embraced in the early 1950s (1988). Industrial organization theory is concerned with the structure and operation of markets. The structure – conduct performance model reflects the theory, which asserts that there is a causal link between market structures, organizational behavior, and intern performance in terms of defined organizational goals (Carlton & Perloff, 2015). Organizations concentrate on market conditions, analyzing internal strengths and weaknesses, and developing and implementing market strategies to acquire a competitive advantage (Belleflamme & Peitz, 2015).

However, fierce competition from both domestic and international tea industry companies, falling pricing, and farmer demands for more remuneration have sparked the need for a competitive marketing plan. Opening up previously excluded market segments, new marketing and distribution methods, and entering new geographic markets are all suggested by McCarthy (1960) in Mbithi et al. (2015) as strategic to competitive advantage. For many years, the tea industry, particularly under the KTDA, relied on brokers to access direct markets and paid little attention to local markets (IFC, 2013).

As a result, the idea applied to the current flexible marketing strategy. Marketing strategies can help the team firm create marketing plans that will help them meet their marketing goals and stay competitive. Every corporation faces the risk of its current business model becoming obsolete in today's evolving and volatile business climate. Adopting the most effective strategy can be vital in countering the

competition. The organization must develop strategies with much consideration of the dynamics of the environment.

### **2.2.5 The 7-S Framework of McKinsey**

The McKinsey's model of 1982 identifies the seven important variables for successful strategy implementation (Peters, & Waterman 1982). Strategy, structure, systems, staff, skills, style/culture, and shared values are the seven factors identified by the 7-S model. The concept is based on the premise that these seven factors must be aligned and mutually reinforcing for an organization to operate well (Kaplan, 2005). The model can be used to understand how organizational parts are interconnected, ensuring that the broader impact of changes made in one area is considered (Chakravarthy, 1986). The implementation strategy describes how an industry group will turn its chosen strategy into action plans and activities. The success of the implementation strategy directs the organization in the plan's intended direction and allows it to achieve its strategic goals (Singh, 2013).

An organization's strategy is the plan of action it develops in response to or in anticipation of changes in its external environment (Mi Dahlgaard-Park & Dahlgaard, 2007). Strategy is distinguished from tactics or operational activities by the fact that it is planned, carefully thought out, and frequently practiced. As a result, strategy is designed to move a company from its current position to a new one defined by objectives, within the restrictions of its capabilities or potential (Singh, 2013). The way tasks and people are specialized and divided, and authority is dispersed, is referred to as structure. It also refers to how activities and reporting connections are grouped, as well as the means through which activities in the organization are coordinated (Cadle, Paul & Turner, 2010). Organizational structures must be organized in order to increase organizational performance.

Management control systems, performance assessment and reward systems, planning, budgeting, and resource allocation systems, and management information systems are examples of formal and informal procedures used to govern an organization (Palatkova, 2011). To support and implement the plan and conduct day-to-day operations, every business has various systems or internal procedures. The

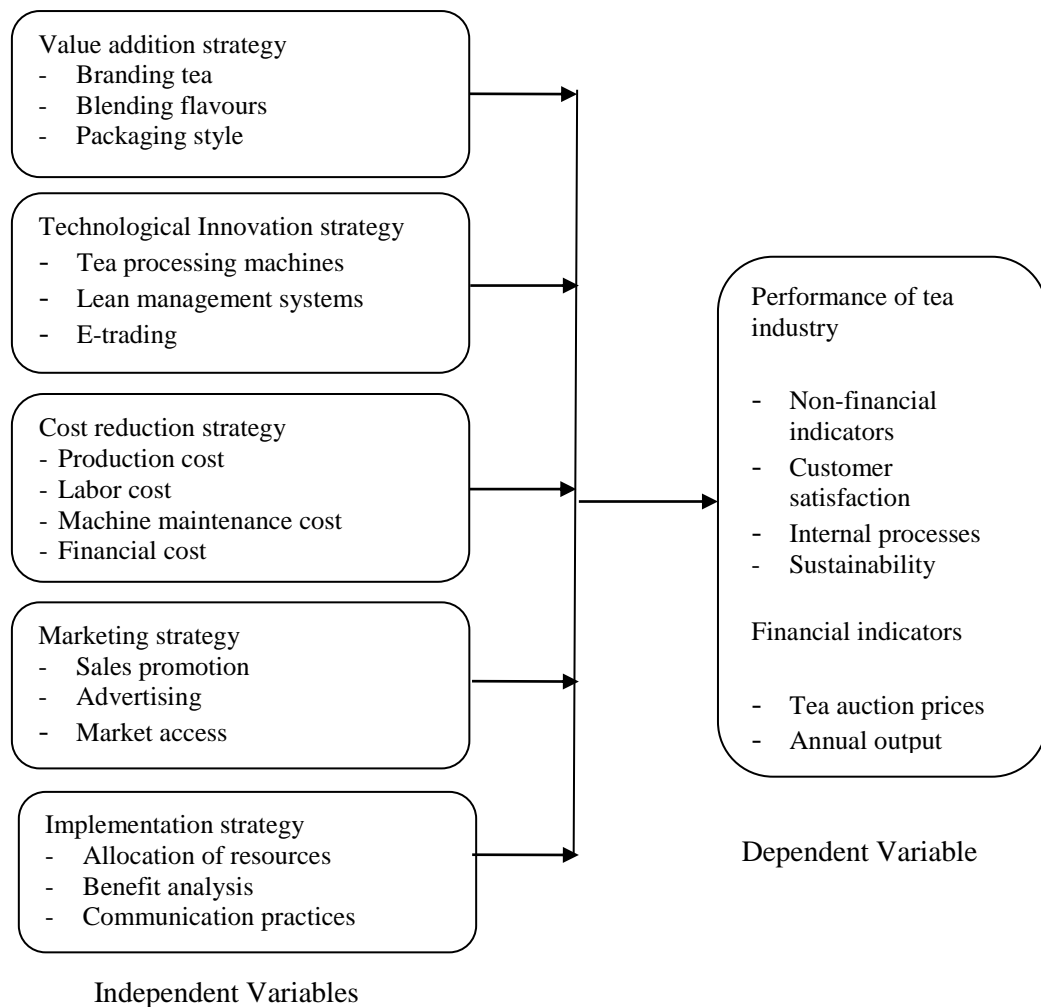
success of these mechanisms determines the organization's performance (Michalski, 2011). Staff refers to the individuals who work for the company, their backgrounds and skills, as well as how the company recruits, selects, trains, socializes, manages careers, and promotes them. Organizations all over the world aspire to develop and retain skilled people who will help them achieve greater success. The final S is for Shared Values (Bhatti, 2011). The core or fundamental set of values that are widely shared in the organization and serve as guiding principles of what is important; vision, mission, and values statements that create a broad feeling of purpose for all personnel (Baroto, Arvand & Ahmad, 2014). The business is built around some fundamental ideals or guiding concepts that all members of the organization share. This could be to increase their organization's performance or to achieve excellence in a specific field.

The 7-S model asserts that companies succeed and achieve increased & better performance when three "hard" components of strategy, structure, and processes, as well as four "soft" factors of skills, staff, style, and shared values, are in sync (Ravanfar, 2015). Organizational performance will thus be determined not just by external environment variables, but also by internal processes and operations that anticipate how organizations will respond to external demands (Brinkschröder, 2014).

As a result, the theory was useful in determining the variable implementation strategy. The tea company's implementation strategy describes how it will turn its chosen strategy into action plans and activities. The success of the implementation strategy directs the organization in the plan's intended direction and allows it to achieve its strategic goals. The theory is appropriate for evaluating management's role in the allocation of human and physical resources, change management, employee motivation, employee involvement in decision-making, control measures, and, most importantly, commitment to organizational strategies and capabilities in strategy execution in the Tea Industry.

### 2.3 Conceptual Framework

A conceptual framework is a diagram that depicts the interaction of variables that describe a phenomenon inside a process system (Cresswell, 2009). According to Zikmund (2010), a conceptual framework is a collection of broad concepts and principles derived from relevant fields of inquiry and users that serve to frame subsequent presentation. A conceptual framework, according to Oso and Onen (2009), reveals the direction of the. Figure 2.1 depicts the relationship between dependent and independent variables graphically.



**Figure 2.1: Conceptual Framework**

### **2.3.1 Strategy for Adding Value**

The process of adding value to a raw material so that it is closer to, or is a finished product before hitting the market is known as value addition (Kelegama, 2010). Before distributing tea to consumers, manufacturers can add value by breaking the bulk, mixing, branding, and packaging it (Gayani, 2006). In order to remain competitive in value-added tea exports, the tea sector must restructure its production. Furthermore, consumer preferences have shifted in recent years, favoring more convenient items such as tea bags and instant tea. Customers are concerned about the brand's quality and dependability (Asopa, 2007). As a result, tea-producing countries such as India and Sri Lanka have employed blending, branding, and packaging to boost their competitiveness (Herath & Silva, 2011).

Changes to main agricultural products such as tea that raise the product's value are known as value addition in agriculture (TBK, 2014). If packers and dealers are allowed incentives to invest in equipment for value addition without having to pay high duty, the tea business has the potential to earn the country a lot more money (Mbui, 2016). Manufacturers can add value to value added tea by blending and packaging it before selling it to the final consumer (Omete, 2015).

Agricultural product brand development is an unavoidable prerequisite for achieving a higher level of agriculture for development in the twenty-first century, in particular; actively execute agricultural product brand strategy, farm produce strong brand development, and market brand awareness. Tea branding is one of the fastest growing businesses in agricultural brand development, with huge potential for encouraging tea industry growth (Ping, 2010). According to Kumar (2013), rapid changes in consumer behavior are more likely to support the branded tea industry than the unbranded segment. As a result of consumers' preference for branded tea packets over open weight dominated unbranded goods, the branded tea market is predicted to increase in the next five years.

According to the American Marketing Association Dictionary (1960), a brand is "a name, term, sign, symbol, or design, or a combination of them, intended to identify

the goods or services of one seller or group of sellers and to differentiate them from those of competitors" (Angus & Oppenheim, 2004).

Regardless of the definition used, the primary goal of branding is to emotionally connect with your target audience, clearly communicate the product message, confirm seller credibility, motivate the buyer, and build user loyalty. According to Moor (2007), branding has proven to be an important marketing strategy that can be used to increase profitability because some brands in specific countries are considered superior to others.

Rizwan (2008) explains the importance of brand image. Brand image is considered a powerful asset for a company and is essential for the positioning of a company for maximum growth. Brand positioning is the process of establishing key brand associations in the minds of customers and other important constituents in order to differentiate the brand and establish (to the extent possible) competitive superiority (Keller et al., 2002). According to Henderson et al. (2003), branding attracts and retains customers by promoting the value, prestige, and a lifestyle.

Consumers cannot differentiate a commodity from another because they all appear to serve the same need and deliver the same value, according to Ariyawardana (2013). Consumer brands, on the other hand, have compelling characteristics that differentiate them from other products in their category. Unilever and Tata Tea are two examples.

According to the Taskforce report (Ministry of Agriculture, 2007), Kenyan tea is primarily exported in bulk, with value added teas in packets accounting for less than 10% of total exports. Tea exported in bulk denies the country employment opportunities as well as revenue because the tea is packaged elsewhere and fetches much higher returns, and the Kenyan identity as a producer of quality tea is lost due to blending with other teas (Tea Board of Kenya, 2012).

Producers were aware of value addition as a marketing strategy in Kenyan tea and were eager to adopt it, according to a study (Kaburu & Theuri, 2017). Producers

believed that adding value to tea has several benefits, including increased revenue and job creation in the packaging and marketing spheres.

According to the Task Force on Tea Industry Report (GoK,2016), Kenyan tea in the global market found that innovation competitiveness has not been notable, owing to the fact that over 60% of tea production comes from smallholders, and as a result, there has been little effort in developing new varieties of products to meet different market needs.

According to the report, the estate sector has only developed new products in the form of vacuum-packed tea, putting it at a disadvantage in the global tea market. The study was based on the premise that brand-building initiatives produce distinct identity for tea brands rather than tea products, and that the association a consumer makes with the brand, if directly linked to actual product differences, provides a compelling reason to buy and build loyalty (Herath & De Silva, 2011). As a result, consumers are drawn to the branded product rather than the unbranded product.

Blending is the process of combining different teas from different origins to achieve desired quality parameters such as taste, color, aroma, and strength (Ariyawardana, 2001). Retail tea sold in branded packets is usually blended from different grades derived from a variety of tea estates and is done based on tea tasters report (Ariyawardana, 2003; Herath & Silva, 2011).

Tea is typically exported to importing consumer countries with minimal processing, where it is blended and packaged by tea companies (Groosman, 2011). As a result, the majority of profits do not go to tea-producing countries, but rather to countries that focus on value addition, with blending being the most lucrative part of the tea trade (Lines, 2006). Teas from different origins provide different tastes, so blending different tea produces better quality tea (Ariyawardana, 2001).

According to Kelegama (2010), one way to increase Value-Added Tea exports is to blend imported tea with local teas and export them as mixed blends, resulting in a wider range of tea exports. It is argued that blending tea locally broadens the existing consumer base, allowing the tea sector to cater for a variety of tastes and preferences



(Lighton, Guveya, Bandason & Mashapa, 2014). (Basu et al., 2010). However, studies on value addition have not been specific to blending, which is argued to be critical to tea quality and, as a result, competitiveness. According to Nyangito (2000), Nasir and Shamsuddoha (2010), packaging alone can increase the profit margin of made tea by tenfold, citing the example of Sri Lanka, which exported tea to the United States in 1997.

### **2.3.2 Cost-cutting Measures**

According to Barney and Hesterly (2006), strategic cost management provides operational managers and decision makers with crucial cost information and an understanding of the drivers of cost to more effectively plan and control costs.

Every company aims to reduce its costs as a way of producing price competitive products by employing efficient processes throughout the value chain and thus reducing unit costs for all of its products (Mbui, 2016). Porter, widely regarded as the most influential strategist in the field of business strategy, developed the cost leadership theory in 1980. (Li, 2017).

According to Oluwagbemiga, Olugbenga, and Adeoluwa (2014), the main goal or objective of any business organization is to make and maximize profit, while other secondary objectives include going concern, growth, corporate social responsibility, employee benefits, and so on. While the other objectives listed above are all important, profit maximization is usually the most important because it maximizes the shareholders wealth, which is the ultimate goal of investing.

According to Horngren (2006), a company with an adequate cost structure has a higher chance of achieving its profit target. Porter (1985) in his cost leadership theory argues that a firm can exploit its resource-capability combinations to effectively attain an efficiency-based competitive advantage that should be able to improve its financial performance.

Rapid technological turbulence and frequent changes in customers' needs and expectations are putting pressure on Malaysian businesses, particularly the hotel

industry, which includes accommodation, restaurants, entertainment, and transportation (Razali, 2008). As a result, hotels have made strategic alignments to stay competitive. Kaliappen and Hilman (2014) looked at the impact of cost management strategy and process innovation on performance in Malaysia.

This may rationalize strategic decisions on innovation processes based on the need to reduce costs and remain competitive in the market. In a similar vein, Khoi, Lan, and Huong (2015) stated that firms could successfully pursue a cost leadership strategy by focusing on cost minimization in hotel designs and operational activities to remain competitive.

Namu and Kaimba (2013) conducted a study in Kenya on the impact of cost-cutting strategies on the performance of tea factories in Embu County, which included 18 managers, 40 employees, and 225 tea growers.

### **2.3.3 Strategy for Technological Innovation**

Technology competitiveness is defined as the ability to compete successfully in markets for new goods and services (Fagerberg & Srholec, 2007). Technology is critical in enhancing an industry's competitiveness, especially with the rapid globalization process. Wang et al. (2007) argue that the recent drive towards globalization and e-commerce has increased the use of technology and has greatly influenced industry competitiveness.

Castellacci (2008) argues that the focus of economic research has shifted from the analysis of price-and-cost related factors of competitiveness to the important role played by technological change, and Matthyssens and Vandembemt (2008) argue that companies must break existing rules of the game and revoke existing patents.

Porter's classic model describes the fundamental interdependent activities that add value to a product or service as the organization brings the product or service to the customer. IT can profoundly impact the effectiveness and efficiency of these value-adding processes by altering the activities themselves or the relationships between activities (Dodgson, 2000).

The "thrusts" are differentiation, cost, innovation, growth, and alliance, and business value can be gained through operational changes, such as improvements that reduce costs significantly or improve product quality to the extent that it changes the behavior of customers or suppliers and has an impact on the competitive environment.

Another major theoretical foundation of the ITBV model is the concept of Business Process Reengineering (BPR), a management paradigm popularized by Hammer and Champy (1993), which was a shining star of the business environment in the early 1990s but had faded somewhat by the end of that decade. Garland (2001) makes a case for the survival of the basic concepts as they apply to IT, especially as a critical element in the development of enterprise wide strategic systems such as Enterprise Wide Strategic Systems.

Farmers' socioeconomic characteristics, such as farm size, farming experience, and education, influence technology adoption (Hudson & Hite, 2003). Farmers' decision to adopt a new agricultural technology over an older one is influenced by factors such as access to institutional services and in-input supply markets (Khan et al., 2008). (Ahmed, 2007).

#### **2.3.4 Marketing Techniques**

In today's changing and turbulent business environment, every organization runs the risk of its current business model being obsolete. As long as quality conscious customers exist, there will be organizations interested in delivering superior quality (Greenhalgh, 2005).

Nonetheless, strategic marketing, a relatively new concept, has yet to be fully explored. According to Hunt and Lambe (2000), marketing has traditionally been viewed and treated more as an operational rather than a strategic function in organizations, with decisions primarily focused on analyzing and selecting target markets, product and brand development, promotion, and distribution channels (Kotler & Keller, 2012; Dulekha, 2008),

In the face of a strong inward focus of resource-based views that tend to ignore dynamic market conditions and nature of demand (Jaakkola, 2006), marketing researchers believe that unique strategy formulation is a key to gain both competitive advantage and the development of unique competencies (Lamberti & Noci, 2010). As a result, marketing strategy should be unique.

Sri Lanka, a legendary tea producer, has been facing intense competition from other tea market players such as India and Kenya (Herath & Silva, 2011). As a result, developing marketing strategies has been identified as a viable option for addressing competitive forces. The same Herath and Silver examined strategies for competitive advantage in value added Tea marketing in Sri Lanka (Basu Majumder, Bera, & Rajan, 2010).

### **2.3.5 Strategy for Implementation**

According to Pearce and Robinson (2007), organizations may be similar at the planning stage but differ in their commitment to implementation, which may have a direct effect on performance (Kreitz, 2007).

Vera and Crossan (2004) outlined critical strategic actions such as top leadership commitment to organizational vision, also in Mor Borak, (2005), performance measurement tool, and accountability to organization initiatives, successful planning and training on diversification, and successful planning and training on diversification in (Kreitz, 2007).

Leaders should be at the forefront in dealing with sensitive issues in strategy such as resource mobilization, restructuring, culture changes, technological changes, process changes, and leadership changes (Burness, 2009). Internal resources, both physical and human, internal management structures, processes, and procedures are vital to the execution of strategies that have been framed in the organizational operations (Odhiambo, 2014; Kreitz, 2007).

Over the last decade, strategic planning researchers, advocates, and management practitioners have argued for effective strategy implementation practices, based on a

presumed positive relationship between strategy implementation and organization performance (Miller, 2002). However, the same Miller explains that organizations frequently fail to implement up to 70% of their strategic initiatives.

### **2.3.6 Tea Industry Performance**

Performance is the organization's capacity to achieve its goals by using resources in an effective and efficient way (Daft, 2002). Strategic management and the need to measure the outcome of an organizational strategy are growing. Measurement systems include the balance score card, performance contracting, and performance pyramid system.

A balanced scorecard is a management tool that provides senior executives with periodic assessments of how well their organization is progressing toward achieving its strategic goals (Kaplan & Norton, 1996). It was first introduced in the early 1990s and has since grown in popularity.

The BSC model balances performance drivers with outcome measures to give a complete picture of organization performance, taking into account the financial perspective, learning and growth perspective, business process perspective, and customer perspective (Norton & Kaplan, 2006; Kotane & Kuzmina-Merlino, 2011).

## **2.4 Empirical Analysis**

The review of available literature based on the study goals is presented in this part.

### **2.4.1 Tea Industry Value Addition and Performance**

Burugo and Owour (2017) used a descriptive research design to investigate the impact of strategic management practices on business profitability in Kenya, using Chai Trading Company Limited as a case study. The findings revealed that cost leadership, value addition, technological innovation, and market diversification influence Chai Trading Company Limited's profitability.

The study investigated the effects of strategic planning, technological competitiveness, marketing competitiveness, and government policy on effective value addition in the tea processing sub-chain to Kenya tea export. The results established that strategic planning, technological competitiveness, marketing competitiveness, and government policy have significant effects on effective value addition of the tea processing in Kenya.

Mwingirwa (2016) used a descriptive research design and primary data collected via a self-administered questionnaire to investigate the relationship between value addition strategies and performance of Kenya Tea Development Agency Managed Factories in Meru County. Khalid (2010) used a qualitative research approach to study tea branding in small companies in the Islamic Republic of Pakistan, with a case study at Vital Tea, a tea company. The study found that a small company can apply branding models up to their capacity of resources, such as time, funds, and trained personnel, and that proper implementation of branding activities requires planning and awareness.

According to Dobson (2003), a brand name facilitates order processing and troubleshooting, provides legal protection for unique product features, allows the seller to attract a loyal and profitable set of customers, and helps the seller segment the market. Tsalwa and Theuri (2016) found that strategic decision has a significant impact on value addition. However, the study was not specific on the aspe.

#### **2.4.2 Cost-cutting Strategy and Results**

The results of a study conducted by Namu and Kaimba (2014) on the impact of cost-cutting strategies on the performance of tea factories in Embu County using a causal design found that the factories used cost-cutting strategies, some of which were acknowledged to be 100% applicable, such as staffing, technology, and energy sources. Ndumia (2010) argued that strategic management practices has a significant influence on performance.

Keraro, Mokamba, Cheluget, Kithitu, and Mbogo (2012) used a survey research design to determine strategies used to improve the effective management of tea

factory companies in a liberalized small holder tea sub-sector in Kenya. The results showed that the majority of factory companies in this sub-sector had adopted cost cutting strategies as the single most popular approach to improving factory company performance following the liberalization of the small holder tea sub-sector.

Marusoi (2013) utilized a descriptive survey design methodology in order to determine the influence that Financial Innovation had on the financial performance of the Kenyan tea industry. According to the findings of the study, the implementation as well as application of the financial innovation process within the tea industry has led to a beneficial effect on financial performance as well as a better alignment of revenues to turnover and costs.

The data was gathered through interviews with the founders of nine firms using an interview guide and records at the Sri Lanka Tea Board and the Sri Lanka Customs. The results revealed that the firms' most prominent strategies were brand building, niche marketing, product differentiation, cost leadership, and customer focus.

Direct material cost, direct labor cost, production overhead cost, and administrative overhead cost were used as independent cost management variables, while profitability (operating profit) was used as a dependent variable to represent the firm's performance in 40 manufacturing companies listed on the Nigeria Stock Exchange.

### **2.4.3 Tea Industry Technological Innovation Strategy and Performance**

Oluoch and Osida (2015) conducted a study on ICT and technological development in advancing tea research in Kenya, using a scoring system to develop continuous dependent variables that were used in regression models to identify the variables most significantly influencing ICT use. Participants cited the cost of technology, lack of training, lack of trust in the ICT system, lack of ICT proficiency, and lack of technological infrastructure as barriers to ICT use.

Ongong'a and Ochieng (2013) conducted a two-month study on innovation in the tea industry: the case of Kericho Tea, which included correlation analysis investigations

and the collection of both quantitative and qualitative data from primary and secondary sources. The study revealed that innovative strategies adopted resulted in increased revenues, high productivity levels, and lower costs.

Ondego (2016) conducted a study on lean manufacturing practices and performance of tea processing firms in Kisii, Kenya, using a census survey research design with both cross sectional and longitudinal research designs. The study's findings revealed that automation was the most widely used lean manufacturing practice in all tea processing firms in the Kisii region, alongside other practices such as kaizen, total productive maintenance, and standardized work.

Kiai and Wambui (2015) used an exploratory research design to investigate the impact of automation on the operational performance of KTDA-managed factories. The findings show that while fully automated factories have higher operational performance than partially automated factories, the overall performance is not significantly different.

#### **2.4.4 Tea Industry Marketing Strategy and Performance**

Odhiambo (2015) investigated the strategies implemented by various tea manufacturers in Kericho County and how they compare to their performance. The study showed a correlation between tea manufacturers in Kericho County's plan implementation procedures and performance. Poor marketing, planning, and outsourcing techniques, according to Nyakwana and Atambo (2017), have a negative impact on manufacturing performance.

The study focused on marketing strategies used in marketing green tea and their influence on performance in terms of net income. A descriptive survey was used on factories operating under the East Africa Tea Association, with a sample of 63 factories. The study findings reveal that adoption of green marketing strategy was positively related to performance.

Furthermore, Hilal and Mubarak (2014) conducted a qualitative study on international tea marketing and the need to revive the Sri Lankan tea industry. It is



recommended that Sri Lanka follow one of the best international entry modes to market tea internationally by having international organizations in tea marketing and exporting companies.

The article was based on secondary tea sector statistics, field data acquired from smallholder tea producers in KTDA-managed facilities in Nyeri and Kirinyaga counties, and interviews with Kenya's major tea industry stakeholders. According to the survey, marketing practices are reducing Kenyan tea's domestic market.

#### **2.4.5 Tea Industry Implementation Strategy and Performance**

Ongong'a and Ochieng (2013) conducted a two-month study on innovation in the tea industry: the case of Kericho Tea, which included correlation analysis investigations and both quantitative and qualitative data collected from primary and secondary sources. The study revealed that innovative strategies adopted resulted in increased revenues, high productivity levels, and lower costs.

Arasa and K'Obonyo (2012) used a survey design to investigate the relationship between strategic planning and firm performance, focusing on the strategic planning steps. Correlation analysis results show that there is a strong link between strategic planning and firm performance.

Chand (2017) used a case study research design to examine the impact of strategic options on the performance of Unilever Tea Kenya Ltd, Kericho County. The study discovered a significant positive relationship between product reengineering and competitive business advantage, as well as that strategic alliances and corporate rebranding have an impact on Unilever Tea's performance.

Kipkorir and Wanyoike (2015) used a descriptive research design to investigate factors influencing green procurement implementation in multinational tea companies in Kericho County. The study discovered that financial support is the most significant constraint to green procurement implementation. The study recommends that multinational tea companies as private entities provide financial support on the importance of adopting the aspect.

Odhiambo (2015) investigated the strategy execution and performance of Kericho County's largest tea factories. The research was based on a census. The study discovered that while all tea factories have adopted and implemented specific strategy implementation procedures, the degree of strategy implementation varies. The study also discovered a link between the tea manufacturers in Kericho County's plan implementation procedures and their performance. Most tea manufacturers place a larger emphasis on financial performance indicators, believing that strategy implementation has a bigger impact on these indicators.

## **2.5 Critique of Existing Literature**

The theories reviewed had some weaknesses. Theory of value chain analysis failed to establish the extent of the value that increases the performance (Bowman & Toms, 2010). Furthermore, another weakness of the theory is that it was only involved with improving value but did not elaborate on the remedies associated with those who leak the information to the competitors (Benito, Petersen & Welch, 2019). Besides, the theory focused more on the internal operations and did not consider many external factors that influence the performance. The value creation becomes successful when they appreciate and provide a beneficial role to the consumers and stakeholders, but the theory does not address those factors (Hutaibat, 2011; Hutaibat, 2011).

In addition, the innovation diffusion theory failed to focus on complex issues such as cultural and political factors, as well as societies that are thought to be rational in deciding whether or not to adopt a new technology (Atwell, Schulte, & Westphal, 2009). Porter's generic strategies also fail to adequately show how leaders' behaviors are associated with performance outcomes and to find a universal style of leadership that could be effective in a variety of situations.

Furthermore, the industrial market theory failed to investigate the impact of macroeconomic factors such as inflation and economic growth on business growth (Boejgaard & Ellegaard, 2010), and McKinsey's 7-S Framework did not establish mechanisms to address information asymmetry, in which some information is only

available within the organization and management is unwilling to share it with others (Chmielewska, Stokwiszewski, Markowska & Hermanowski, 2010).

Furthermore, based on the reviewed literature, methodological gap exists in the data type, research design, and sampling techniques. Some of the studies only used the descriptive research design, which does not consider the impact of value addition strategy, technological innovation strategy, cost reduction strategy, marketing strategy, and implementation strategy on the tea industry

## **2.6 Research Disparities**

There have been scholarly attempts to examine strategies that can be employed to improve the performance of the tea industry. A study by Burugo and Owour (2017) found that market destination has a negative impact on performance, whereas the current study assumes that marketing strategy has a positive impact on tea industry performance, presenting a conceptual gap. The study by Mbui (2016) was limited to value addition strategies, whereas the study by Ongo'nga and Ochien (2017) was not.

The major gap revealed in the studies was partial examination of strategies to determine performance of tea industry. This may not provide adequate strategic solutions to the concerning low performance of the tea industry. There is need for a holistic approach in which various strategies are scaled to determine their potential to transform tea industry. To bridge this gap, the study combined the various strategies with a view to developing a data based strategic framework capable to predict the performance of tea industry in Mount Kenya region and indeed other tea growing areas.

## **2.7 Summary**

The above chapter reviewed the various theories that explain the independent and dependent variables. The conceptual framework is drawn up from the reviewed literature in line with the following criteria, title, scope, methodology forming the basis for the critique of literature. It is from these critiques that the research gaps

both conceptual and contextual were identified. The next chapter outlines the methodology that the study adopted in order to achieve the stated objectives.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

In this chapter, research design, study population along with the sampling procedures and sample size; sampling frame, data collection instruments along with the consideration of validity and reliability, data collection procedures; data analysis techniques were discussed. Attention was also paid to ethical issues in relation to the respondents.

#### 3.2 Research Design

Research design is the researcher's plan of action that provides the researcher with a framework of operation that steers the inquiry process (Borg & Gall, 1996, Cohen & Manion, 2000). The research process becomes purposeful, meaningful and systematic if the pattern to carry out research blends well with research objectives. This study used a descriptive research design and explanatory research design. Descriptive research is used to describe characteristics of a population or phenomenon being studied. This methodology focuses more on the "what" of the research subject rather than the "why" of the research subject. Descriptive research design is flexible enough to provide opportunity for considering different aspects of a problem under study (Kothari, 2004). This design was further appropriate for this study as it enabled the researcher to collect in depth information about the population being studied.

Explanatory research design is appropriate when establishing whether there is a significant association among variables (Laurel, 2011). Explanatory research design describes the "why" of the population by establishing the cause-and-effect relationship between the dependent variable (performance of tea industry in Mount Kenya Region) and the independent variables (value addition strategy, technological innovation strategy, cost reduction strategy, marketing strategy and implementation strategy).

The main focus of this study was quantitative. Additionally, the study also used a qualitative approach in a bid to acquire a better understanding and hence lead to a better and more insightful interpretation of the results from the quantitative study. This method concerns the intense investigation of problem-solving situations in which problems are relevant to the research problem. This strategy involves selecting of several targeted cases on which an intensive analysis is conducted. This aids in recognizing other possible ways for solving the research questions based on the present solution applied in the selected case study. The study brings out a subject, often by formulating a profile of group of problems (Cooper and Schindler, 2006).

### **3.3 Research Philosophy**

Research philosophy is a glimpse into how data about a phenomenon should be gathered, analysed and used (Padilla-Díaz, 2015). Research philosophy relates to the foundation of knowledge upon which critical assumptions and predispositions of a study are based. The philosophy has implications on what, how, and why the research will be carried out (Saunders, Lewis & Thornhill, 2012). There are three main types of research philosophies, namely; interpretivism, realism and positivism (Saunders, Lewis, Thornhill & Bristow, 2015). According to the interpretivism technique, researchers grant significance to their viewpoints and ideas to validate a research problem (Kennedy, 2017).

In the realism technique, two major practices are direct and critical realism (Bridges, 2017). Direct reality implies what an investigator experiences and views. Conversely, in critical realism, investigators discuss their experiences for a particular situation (Saunders et al., 2012). Interpretivist's philosophical structure centres on the evaluation of the contrasts between people on social characters (Kennedy, 2017). The issue of distinction is accentuated on the contrast between leading researches among individuals instead of articles, for example, prescriptions.

Interpretivism and realism research philosophies will not be used in this study. This is because the interpretivism paradigm is used in a study whereby the researcher wants to understand and interpret the meanings in human behaviour rather than to generalize and predict causes and effects (Saunders et al., 2015). Positivism research

philosophy, which is directly related to the notion of objectivism, will be utilized for this study. In this type of approach, researchers provide their standpoint to assess the social world with the aid of impartiality instead of prejudice (Cooper & Schindler, 2014).

The positivist position is characterized by the testing of hypotheses developed (hence deductive or theory testing) through the measurement of observable social realities (Creswell & Poth, 2017). Positivism is based on facts gathered through direct observation and measured empirically using quantitative methods and statistical analysis (Creswell & Clark, 2017). The fundamental difference between positivism and other philosophies lies in the realm of theory, whereby data within positivism is theory-driven and designed to test the accuracy of the theory. Positivist philosophy reveals that knowledge is based on facts and that no abstractions or subjective status of individuals is considered (Singh, 2015). The research strategy is approached based on data gathering and theory advancement (Adam, 2014). Further, positivism works on quantifiable observations and accordingly, statistical analysis is obtained. In the current study, hypotheses were tested. Therefore, positivism was considered the most appropriate research philosophy in the current study.

### **3.4 Target Population**

Population refers to an entire group of individuals' events or objects having a common observable characteristic that concern the researcher (Mugenda & Mugenda, 2003). Cohen Manion and Morrison (2000) describe the population as the totality of persons, events, organizations, units, or other sampling units from which the researcher intends to generalize results. Polit and Hungler (1999) refer to population as an aggregate of all objects, subjects, or members that conform to certain specifications.

The study focused on sixteen tea factories in Mt Kenya (KTDA, 2019). The units of observation were the employees from the management. The target population was 117 management teams comprising five regional managers that are regional manager (RM), accountant (AC), operations manager (OM), production manager (PM) and auditor manager (AU), training managers (TM) and field coordinators (FC). The

management in 16 factories includes 17 regional managers (RM), 33 accountant managers (AC), 1 operations manager (OM), 17 production managers (PM), 1 auditor manager (AU), 32 training managers (TM) and 16 field coordinators (FC) (KTDA, 2019). The reason for picking Management staff is because they are more conversant with the production and marketing dynamics of Tea sales both locally and internationally. The target population is presented in Table 3.1

**Table 3.1: Target Population**

	No Factories	Regional manager	Accountant	Operations manager	Production manager	Auditor manager	Training managers	Field coordinators	Total
Regional		1	1	1	1	1	0	0	5
Management Embu	3	3	6	0	3		6	3	21
County Meru	8	8	16		8		16	8	56
County Kirinyaga	5	5	10	0	5	0	10	5	35
County Total	16	17	33	1	17	1	32	16	117

Source: Mount Kenya Region KTDA Office, 2019

### 3.5 Sampling Procedure and Sample Size

Sampling is the process of selecting representative individuals to enable the researcher to gain information about the population (Borg & Gall, 1996, Oso & Onen, 2009). According to Saunders, Lewis and Thornhill (2007), sampling provides a viable alternative to a whole population because using an entire population would lead to budget and time constraints. In the current study, a census was conducted. A census is conducted when the target population is small and manageable. The target population in the current study was 117, and thus they were few and manageable. The importance of conducting the census was that it gave detailed information on the population without biasness. Thus, the study made a precise inference regarding the influence of strategic factors on the performance of the tea industry in Kenya and



particularly in Mount Kenya since the entire population was incorporated in the study.

The sampling frame is a physical or actual representation of all the elements in the population from which the sample is drawn (Ishak, Bakar, & Yazid, 2014). According to Acharya, Prakash, Saxena and Nigam (2013), a sampling frame is a list of items used to define a researcher's population of interest. The sampling frame defines a set of elements from which a researcher can select a sample of the target population (Washington, Sun & Canning, 2017). The sampling frame was 17 regional managers (RM), 33 accountant managers (AC), 1 operations manager (OM), 17 production managers (PM), 1 auditor manager (AU), 32 training managers (TM) and 16 field coordinators (FC). A total of 117 employees from the management level formed the sampling frame.

### **3.7 Data Collection Instruments**

Primary data was collected using questionnaire and focus group interview. The set of questionnaires were administered to factory management while regional management were engaged in the focused group interview. Secondary data for the financial performance indicator (tea auction price) for the year 2011-2019 was collected.

#### **3.7.1 Questionnaires**

Questionnaires are measuring instruments that ask respondents to answer a set of questions (Schwab, 2005). There are three types of questionnaires, closed, open ended and a combination of both. A combination of both open and close ended questionnaires is especially suitable for mixed research in order to generate both quantitative and qualitative data. In this study, open and close ended questionnaires were used (Appendix III). The questionnaires have sections A & B. Section A had background information while section B had open ended and Likert scale items set in relation to objectives.

The choice of questionnaires is deliberate because of various merits such as low cost, free from bias of the interviewer, answers are in respondents own words, respondents have adequate time to give well thought out answers and can be administered to a large sample within a short time (Mugenda & Mugenda, 2003; Kothari & Garg, 2014). The authors concur on demerits of the questionnaires such as low return, depending on cooperation of respondents items can be misunderstood and omissions are common. Nevertheless, the advantages override the disadvantages hence they were useful in the study. Questionnaires were self-administered with the help of two research assistants to the factory staff. The questionnaires were administered through drop and pick method.

### **3.7.2 Focus Group Interview**

The study also held in-depth interviews with the factory management. It is a qualitative technique for data collection. Focus group interview is comprised of individuals with certain characteristics who focus discussions on a given topic (Anderson, 1990). The interview session facilitated deep understanding of the strategies adopted by the factory managements.

It consists of a group of five to nine members brought together by a trained moderator to explore attitudes and perceptions, feelings and ideas about a topic (Denscombe, 2007). According to Patton (2002), focus group interview is aimed at collecting high quality data in a social context which basically help to understand a specific problem from the viewpoint of participants (Khan & Manderson, 1992). The discussion also provides rich and detailed set of data about feelings and impressions of people in their own worlds (Stewart & Shamdasani, 1990).

In the study focus group interview was held with the KTDA regional managers in Mount Kenya Region. The interview was guided by an interview schedule (Appendix III). The regional managers are likely to have deeper understanding on performance variables in Tea industry. Moreover, the discussion was used to corroborate as well as validate findings from the quantitative research collected using questionnaires as observed by Morgan (2007).

### **3.8 Pilot Study**

A pilot is a small scale research projects that collects data from respondents similar to those that will be used in the future survey. Pilot test is conducted to detect weaknesses in design and instrumentation and to provide proxy data for selection of a probability sample (Cooper & Schindler, 2011). It assists the research in determining if there are flaws, limitations or other weaknesses within the questionnaire design and allows the researcher to make necessary revisions to the questionnaire prior to the implementation of the study. A pilot is meant to test for clarity and understanding of questions to test if the questions would yield as expected. A pilot test is conducted in order to test for reliability and validity of the data collection instruments.

#### **3.8.1 Validity of the Research Instrument**

Gay and Airasian (2003) explain that validity is that quality procedure that enables it to measure what it is supposed to measure. It addresses the concern of whether one is measuring suitable indicators of the concept, accuracy of the results to the extent of what is supposed to be measured. Face validity was determined by presenting the instrument to the supervisors in the school of business Jomo Kenyatta University of Agriculture and Technology for scrutiny and advice. McMillan and Schumacher (2010) point out that it is necessary to have experts examine the instrument items and judge their suitability correspondingly; content validity that involves assurance that items comprising the measuring instrument are representative of the field which they intend to serve will be ascertained by setting items in relation to objectives.

#### **3.8.2 Reliability of the Research Instrument**

Reliability refers to the consistency of the instrument to produce consistent results after repeated trial (Mugenda & Mugenda, 2003). Concern for reliability in this study was important because without reliability there can be no valid outcomes (McMillan & Schumacher, 2001). Reliable instruments yield consistent results to the extent that independent administrators yield related results (Saunders et al., 2007). For this study a pilot study was conducted in one factory to ensure suitability and clarity of items in

the instruments designed, relevance of the information being sought and language from responses given. This method is the most convenient as it requires a single administration of the instrument and can be used to examine the correlation among all items measuring each variable (Cooper & Schindler 2003). The Cronbach's formula is illustrated as;

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

Here 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. One can see from this formula that if you increase the number of items, you increase Cronbach's alpha.

Reliability study was carried out in one factory (Kiru Tea Factory) in the neighbouring Nyeri County. Cronbach's alpha was used to test the reliability of the measures in the questionnaire (Sekaran & Bougie, 2016). The respondents who participated in the pilot study were not included in the final study. A pilot study is undertaken on 10 percent of the sample population and this was the case of the study (Creswell & Creswell, 2017). A coefficient of 0.7 or over is recommended for a newly developed questionnaire. All the variables of the study indicated Chronbach Alpha of over 0.7. The closer Cronbach's alpha coefficient is to 1, the higher the internal consistency reliability (Sekaran, 2003).

### **3.9 Data Collection Procedure**

A JKUAT authorization and request letter was procured from the University upon successful defence and seminar presentation. Moreover, the researcher obtained a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI) and an authority letter from the Institutional Review Board (IRB). The researcher interaction with the Tea industry made access to Management relatively easy in administration of questionnaires and focus group interviews. Further information on intended research was sought from respective county governments of Meru, Embu and Kirinyaga. The letters were presented to the managers of the sampled factories during instrument administration. The

administration of questionnaires was conducted through drop and pick method with the help of two research assistants.

The study ensured the information obtained was not shared with anyone for confidentiality reasons. In addition, the respondents were assured that the information was only be used for the study. Moreover, the researcher adhered to the rules, ethics and code of conduct guiding the firms. The respondents were not forced to share the information that was so sensitive. The respondents were guaranteed to copy the research findings in soft copy upon request. The respondents' identity was concealed and they were given random numbers during the time of analysis. The research assistant was instructed not to disclose any information without permission from the corresponding author or the university.

### **3.10 Data Analysis and Presentation**

The data cleaning before the analysis was done by first cross-checking to remove any outliers and errors. In addition, the data was cross-examined by the supervisors in charge of the project writing. Qualitative data was analyzed using content analysis, while the quantitative data using both descriptive and inferential statistics. Descriptive statistics, frequency tables, percentages and means and standard deviation were used to describe the relationship among variables. Further line graphs were used to describe trends in productivity and earnings over the years. Commenting on descriptive statistics, Gay and Aurasian (2003) explain that descriptive statistics easily communicate findings to the respondents. Inferential statistics Paired “t” test was used to compare whether there is a change in costs and production and earnings after cost reduction.

p- value to test levels of significance, Pearson correlation to measure strength and direction of relationship and regression analysis to examine causal effect relationship. The analysis was supported by the current version SPSS. According to Anderson (2004) regression analysis is used in situations, where the number of independent variables is more than one. Similarly, Gelman and Hill (2006) recognize that regression methods have become integral to data analysis concerned with describing the relationship between a response variable and one or more explanatory

variables. Valipour et al. (2012) and Mbuyi (2016) applied the regression model in their study. The hypotheses were tested by using multiple regression results and determined using the p-value. The acceptance/rejection criterion was that if the p-value is less than 0.05, we reject the null hypothesis (Ho), but if it is more than 0.05, the Ho is not rejected. The regression model was as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \varepsilon \dots \dots \dots 3.1$$

Y = Performance,  $\beta_0$  = constant,  $\beta_1$  = Beta, coefficients  $\beta_2$ = Beta coefficients  $\beta_3$  = Beta coefficients,  $\beta_4$ = Beta coefficients, Beta coefficients  $\beta_5$ =  $X_1$ = Value addition,  $X_2$ = Technological innovation  $X_3$ = Cost reduction strategy  $X_4$  = Marketing strategy,  $X_5$ = Implementation strategy  $\varepsilon$  = error term

Tea industry performance was measured using non-financial (customer satisfaction, Internal processes and firm sustainability) and financial indicators (tea auction prices). Tea auction prices figures were obtained from the balance sheet of the KTDA. Tea auction prices are the rates at which the farmers are paid towards their tea delivered to the factories and they are expressed in Kenya shillings.

**Objective I- To establish the influence of value addition strategy on performance of tea industry**

A simple linear regression equation was used to establish whether value addition strategy influences the performance of tea industry using non-financial indicators. Tea industry performance was measured using non-financial (customer satisfaction, Internal processes and firm sustainability).

$$Performance\ of\ tea\ industry = \beta_0 + \beta_1X_1 + \varepsilon \dots \dots \dots 3.2$$

**Objective II – To investigate the influence of technological innovation strategy on performance of the tea industry**

Simple linear regression equation that was used to determine the effect of cost reduction strategies on performance of tea industry using non-financial indicators. Tea industry performance was measured using non-financial (customer satisfaction, Internal processes and firm sustainability).

$$\text{Performance of tea industry} = \beta_0 + \beta_2 X_1 + \varepsilon \dots \dots \dots 3.3$$

**Objective III-To establish the influence of cost reduction strategy on performance of tea industry**

Tea industry performance was measured using non-financial (customer satisfaction, Internal processes and firm sustainability) and financial indicators (tea auction prices).

The following is a multiple linear regression equation used to determine the effect of technology innovations strategy on tea industry performance measured using non-financial indicators.

$$\text{Performance of tea industry} = \beta_0 + \beta_3 X_3 + \varepsilon \dots \dots \dots 3.4$$

**Objective IV - To determine the influence of marketing strategy on performance of the tea industry**

Tea industry performance was measured using non-financial (customer satisfaction, Internal processes and firm sustainability). The following is a multiple linear regression equation to be used to determine the influence that marketing strategy has on performance of tea industry measured using non-financial indicators.

$$\text{Performance of tea industry} = \beta_0 + \beta_4 X_4 + \varepsilon \dots \dots \dots 3.5$$

**Objective V-To examine the influence of implementation strategy on performance of tea industry**

Tea industry performance was measured using non-financial (customer satisfaction, Internal processes and firm sustainability). The following is a multiple linear regression equation to be used to examine the influence of implementation strategy on performance of tea industry measured using non-financial indicators.

$$\text{Performance of tea industry} = \beta_0 + \beta_5 X_5 + \varepsilon \dots \dots \dots 3.6$$

**To determine the multiple regression model of the study**

Join regression model was conducted by running the joint effect of value addition strategy cost reduction strategies, technology innovation, marketing strategy and implementation strategy on performance of tea industry using non-financial indicators.

$$\text{Performance of tea industry} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \dots \dots \dots 3.7$$

Where:

{ $\beta_i; i=1,2,3,4,5,$  } = The coefficients representing the various independent  
{ $X_i; i=1,2,3,4,5,$ } = Values of the various independent(covariates)  $\varepsilon$  is the error term which is assumed to be normally distributed with mean zero and constant variance.

Hosmer and Stanley (2000) indicate that regression methods have become an integral component of any data analysis concerning description of the relationship between a response variable and one or more explanatory variables. It is often the case that the outcome variable is discrete, taking on two or more possible values. It is necessary to realize that the goal of an analysis by use of this method is the same as that of any model-building technique that is applied in statistics; to find the best fitting and most parsimonious, yet reasonable model to describe the relationship between an outcome (dependent or response) variable and a set of



independent (predictor or explanatory) variables. These independent variables are often called covariates.

The data that was obtained from the questionnaires was primarily qualitative and was analysed using linear multiple regression to identify the most important and statistically significant financial innovation that had impacted most on tea industry performance. IBM (2010), indicated that linear multiple regression is useful in situations where there are more than two independent variables and/or dependent variables. Tether (2001) uses a linear multiple regression procedure in a study to identify the population's idea of the definition of innovation across various sectors in the United Kingdom. According to IBM Base (2010), a paired samples t-test compares the means of two variables for a single group. The study also used paired samples t-test of significance to test whether the change in the independent variables was statistically significant. The t- test of significance was applied to test whether the variation in the independent variables was statistically significant. The above statistical tests were conducted through the use of Statistical Package for Social Science (SPSS) version 20 (Andy, 2009). Summary of data analysis is shown in Table 3.2.

**Table 3.2: Summary of Data Analysis**

<b>Objective</b>	<b>Independent Variable</b>	<b>Dependent Variable</b>	<b>Statistic</b>	<b>Hypothesis</b>
1. To establish whether value addition has influence of on the performance of the tea industry	Value addition strategy	Performance of industry	Teameans, standard deviation, analysis of Variance, F-test, Pearson correlation, regression,	Value addition strategy has no significant influence on performance of the tea industry in Mount Kenya Region, Kenya
2. To investigate whether the cost reduction strategies influence the performance of tea industry	Cost reduction strategies	Performance of industry	Level of significance teameans, standard deviation, analysis of Variance, F-test, Pearson correlation, Regression,	Technological Innovation has no significant influence on performance of tea industry in Mount Kenya Region, Kenya
2. To investigate the influence of technology innovation on performance of tea industry	Technology innovation strategy	Performance of industry	significance level teameans, standard deviation, analysis of Variance, F-test, Pearson correlation, Regression,	Strategic cost management has no significant influence on performance of tea industry in Mount Kenya Region, Kenya
3. To determine whether the marketing strategies on performance of Tea Industry	Marketing strategies	Performance of industry	significance level teameans, standard deviation, analysis of Variance, F-test, Pearson correlation regression, significance level regression, content analysis	Marketing strategies has no significant influence on performance of tea industry in Mount Kenya Region, Kenya
5. To examine the influence of implementation strategy on the performance tea industry in Mt. Kenya region	Implementation strategy	Performance of Tea industry	means, standard deviation, analysis of Variance, F-test, Pearson correlation, regression, level of significance regression, content analysis	Implementation strategy has no significant influence on performance of tea industry in Mount Kenya Region, Kenya

### **3.11 Diagnostic Tests**

It was essential to ensure non-violations of the assumptions of the classical linear regression model (CLRM) before estimating regression equation. Estimating these equations when the assumptions of the linear regression are violated runs the risk of obtaining biased, inefficient, and inconsistent parameter estimates (Lee, Collins, Wang & Brooks, 2008).

#### **3.11.1 Normality Test**

The normality of data was tested using graphical method approach. The frequency distribution in which the observed values are plotted against their frequency, states a visual estimation whether the distribution is bell shaped or not. At the same, time it provides indication about insights gap in the data and outliers (Das & Imon, 2016). Also it gives idea about skewness or symmetry. The results showed a bell-shaped indicating that the residuals are normally distributed.

#### **3.11.2 Test for Multicollinearity**

Multicollinearity is usually a situation in which there is a high degree of association between independent variables and dependent variable. Failure to account for perfect multicollinearity results into indeterminate regression coefficients and infinite standard errors while existence of imperfect multicollinearity results into large standard errors (William *et al.* 2013). Large standard errors affect the precision and accuracy of rejection or failure to reject the null hypothesis. During estimation, the problem is not the presence of multicollinearity but rather its severity. Multicollinearity was tested using variance inflation factor VIF where  $VIF \geq 10$  indicate presence of Multi-collinearity (Field, 2009).

#### **3.11.3 Heteroscedasticity**

Since the data for this research is a cross-section of firms, this raises concerns about the existence of heteroscedasticity. The Classical Linear Regression Model (CLRM) assumes that the error term is homoskedastic, that is, it has constant variance. If the error variance is not constant, then there is heteroscedasticity in the data. Running a

regression model without accounting for heteroscedasticity would lead to unbiased parameter estimates. To test for heteroscedasticity, the Breusch-Pagan/Godfrey test was used. The null hypothesis of this study was that the error variance is homoskedastic. When  $p\text{-value} < 0.05$ , there is Heteroscedasticity; when  $p\text{-value} > 0.05$ , there is no Heteroscedasticity.

#### **3.11.4 Test for Autocorrelation**

Since the data is cross section in nature, it raises the suspicion of the existence of serial correlation. The presence of serial correlation indicates that the variables in the model violate the assumptions of the regression (Anderson *et al.*, 2007). To establish whether or not the residuals are serially correlated over time, Breusch-Godfrey test for autocorrelation was conducted.

According to Wooldridge (2002), failure to identify and account for serial correlation in the idiosyncratic error term in a panel model would result into biased standard errors and inefficient parameter estimates. The null hypothesis of this test was that the data has no serial correlation. If the serial correlation is detected in the panel data, then the Feasible Generalized Least Squares (FGLS) estimation was adopted. The  $p$  value of  $> 0.05$  indicates absence of serial correlation.

#### **3.11.5 Linearity Test**

Scatterplots was used to test for linearity and to visually show whether there was a linear or curvilinear relationship between two continuous variables before carrying out regression analysis (Cox & Wermuth, 1994). Regression models is accurate if the relationship between dependent and independent variables is linear (Osborne & Waters, 2002).

## CHAPTER FOUR

### RESEARCH FINDINGS AND DISCUSSIONS

#### 4.1 Introduction

This chapter represents the findings, results and interpretation of the variables including the response rate, reliability and validity and descriptive statistics. Correlation, multiple regression and simple regression analysis for each variable is performed. Data presentation is based on the specific objectives of the study.

#### 4.2 Response Rate

The number of questionnaires that were administered was 117 and a total of 86 questionnaires were properly filled and returned but some of the respondents returned the questionnaires half-filled while others did not return them completely despite a lot of follow up. The response rate result is shown in Table 4.1.

**Table 4.1: Response Rate**

Response	Frequency	Percent
Returned	86	73.5%
Unreturned	31	26.5%
Total	117	100%

Out of the 117 questionnaires administered, 86 were filled and returned, representing a 73.5 percent return rate. This response rate is considered very good to make conclusions for the study. Bailey (2000) stated that a response rate of 50% is adequate while a response rate greater than 70 percent is very good. Babbie (2004) also asserted that return rates of above 50% are acceptable to analyse and publish, 60% is good above 70% is excellent. Based on these assertions from renowned scholars, a 73.5% response rate was excellent for the study. The data collection procedures used could have attributed to this high response rate. These included competent research assistants, pre-notification of respondents and voluntary participation by respondents; drop and pick questionnaires to allow for ample time to

fill; assurance of confidentiality and anonymity and follow-up calls to clarify queries from the respondents.

### 4.3 Reliability and Validity

The study used Cronbach alpha to test for reliability of data. Reliability is the consistency of measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. Kaiser-Mayer-Okin (KMO) and Bartlett's tests were also applied to test for validity of the data. Validity is the accuracy and meaningfulness of inferences, which are based on the research results. Validity exists if the data measure what they are supposed to measure.

#### 4.3.1 Reliability Test

Reliability test was conducted to test for data collection instruments' ability to produce consistent and accurate results. Cronbach alpha was used to test for reliability of data. The acceptance value of 0.70 was used as cut-off of the reliability for the study. Results are presented in Table 4.2.

**Table 4.2: Reliability Statistics**

Variable	Cronbach alpha	Items	Comment
	<b>Items</b>		
Value addition strategy	.824	13	Reliable
Technological innovation	.831	12	Reliable
Cost reduction strategy	.807	21	Reliable
Marketing strategy	.878	8	Reliable
Implementation strategy	.807	14	Reliable
Tea performance	.869	5	Reliable

(Kiru Tea Factory, 2018)

The study findings in Table 4.2 indicated that the data instruments were reliability with a Cronbach alpha value of above 0.70. Castillio (2009) provided the following

rules of thumb: >0.9 – Excellent, >0.8 – Good, >0.7 – Acceptable, >0.6 – Questionable, >0.5 – Poor and <0.5 – Unacceptable. The findings indicated that the Cronbach alpha for each of the variables was above the lower limit of acceptability thus reliable with value addition strategy having a coefficient of 0.824; technological innovation having a coefficient 0.831; cost reduction strategy having a coefficient 0.807; marketing strategy having a coefficient .878, implementation strategy having a coefficient of .807 while Tea performance had Tea performance .869.

### 4.3.2 Validity Test

To test for validity of the study, Kaiser-Mayer-Osklin (KMO) test for sampling adequacy was used while Bartlett’s test was used to measure sphericity test on whether the relationship among variables has been significant or not so as to determine the validity of the responses collected for the problem addressed by the study. A factor analysis was done for all the variables and all the data was found to be valid.

**Table 4.3: Validity Test Analysis**

Variable	KMO	Bartlett’s	Df	Sig.
value addition strategy	.852	1000.247	45	0.000
Technological innovation	.687	628.167	66	0.000
cost reduction strategy	.748	484.448	55	0.000
marketing strategy	.623	689.453	58	0.000
Implementation strategy	.621	351.085	45	0.000

Results in Table 4.3 show that value addition strategy had KMO value of .852 which is acceptable since had a value of more than 0.5 while the Bartlett test is significant with a p-value of 0.000; technological innovation had KMO value of .687 an indication that the variable is valid with a Bartlett’s test significance of p-value of 0.000. Cost reduction strategy had KMO value of .748 and Bartlett’s test significance of 0.000. Marketing strategy had KMO test of .623 and Bartlett’s test significance of 0.000. Finally, implementation strategy had KMO test of .621 and

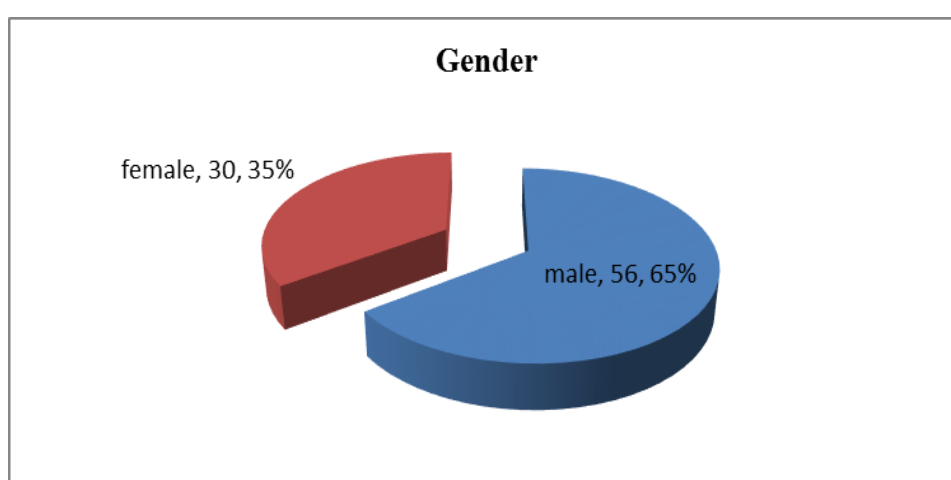
Bartlett's test significance of 0.000. The validity results show that all the variables met the validity criterion based on KMO test.

#### 4.4 Demographic Characteristics

The study sought to establish the firm's and respondents' characteristics based on gender of the respondents, age of the firm, duration worked in the tea industries and level of education of the respondents.

##### 4.4.1 Gender of Respondents

The researcher was interested in determining the gender distribution of the respondents. The gender may have the influence in knowing well about the operations of tea industry thus important to determine the gender accordingly. Men were the majority at 65% and female were 35% as shown in Figure 4.1. The results imply that majority of workers in the tea factory are males. The findings of this study contrast that of Makone, Bitange, Soire and Odero (2017) that, women provide most of the workforce in tea sector. According to Maina, Mathenge, Mwathe and Mathenge (2015) women's involvement in tea production is more intense than men counterparts.



**Figure 4.1: Gender of the Respondents**



#### 4.4.2 Duration Worked in the Industry

The respondents were asked to indicate the duration they have been working in the tea industries. The results are presented in Table 4.4. It is important to have an adequate experience for successful performance of any firm.

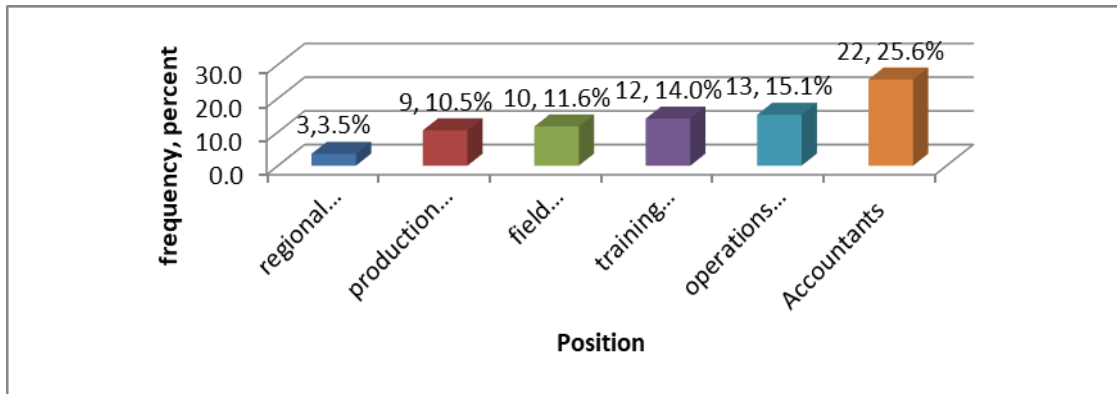
**Table 4.4: Working Experience**

<b>Duration worked</b>	<b>Frequency</b>	<b>Percent</b>
0 – 5 years	12	14
5 - 10 years	35	40.7
10- 15 years	26	30.2
15 years and above	13	15.1

Table 4.4 indicates that 40.7% of the respondents had worked for between 5-10 years, 30.2% between 10-15 years, 15% for 15 years and above and finally, 14% had worked for a period of 0-5years. This finding suggests that majority of the respondents have worked in the tea sector for over 5 years. Work experience contribute to a one's achievements, engagement, skills and progression). Successful work experience significantly increased motivation; self-esteem and attendance help develop and employability skills, helps learning to be applied in wider contexts outside school.

#### 4.4.3 Position in the Company

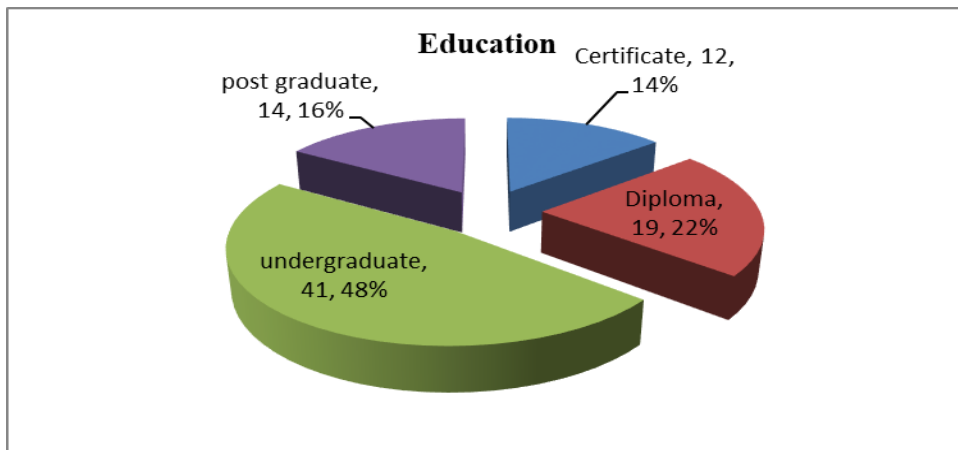
Data on Figure 4.2 show that 3.5% were regional managers, 10.5%, production managers, 11.6% field coordinators, 14.0% training managers, 15.1% operations managers and 25.6% accountants. This kind of distribution might have been influenced by the entry point behaviour at the start of data collection, where in most tea factories the managers were the main contact persons while in other factories it was the audit departments. However, the nature of the study generated more interest from the managers.



**Figure 4.2: Positions**

#### 4.4.4 Level of Education

Figure 4.4 presents the study findings on the level of education.



**Figure 4.3: Level of Education**

The study noted that 48% had undergraduate level of education and 22% had a diploma. This is an indication the tea factory personnel are educated and this may be attributed to their role in the factories. Further, 14% of the respondents stated that they are certificate holders while 16% of the respondents are post graduates being holders of masters and PhD.

Based on the results of the study regarding the educational levels of the respondents, it can be concluded that the respondents were well educated. Education is a key determinant in work performance and this likely to influence performance of the tea

industries. Education is also likely to influence their need for training. The results agree with Chiliya and Roberts-Lombard (2012) who established that education levels of employees have a significant impact on the profitability of the business.

#### **4.4.5 Age of the Factory**

Table 4.5 shows that 61.6% of the factories have been in existence for more than 15 years, 15.1 % for between 10 and 15 years while 12.8% between for 10 and 15 years. Further, 10.5 % of the respondents indicated that their factories have existed for between 1-5 years. The finding implies that majority of the tea factories have been in existence for relatively long time. As a result, the tea factories should have grown to large tea processing firms which are not currently the case as most of the tea factories are still underperforming.

**Table 4.5: Age of the Factory**

<b>Age of the factory</b>	<b>Frequency</b>	<b>Percent</b>
1 - 5years	9	10.5
5 - 10 years	13	15.1
10 -15 years	11	12.8
15 years and above	53	61.6

#### **4.5 Descriptive Statistics**

This section contains descriptive analysis for value addition strategy, technology innovation strategy, cost reduction strategy, marketing strategy, strategy implementation and performance of the tea industry in Mount Kenya region. A Likert scale was used to present the results as of percentages, mean and standard deviations.

##### **4.5.1 Value Addition Strategy**

The primary purpose of the research was to determine whether or not the value addition strategy has an effect on the performance of the tea industry in the Mount Kenya region. To achieve the respondents were requested to indicate their levels of

agreement on a five point Likert scale. (1 = strongly disagree, 2 = Disagree 3 = Neutral, 4 = Agree, 5 = strongly agree) was used and the mean response rate from the respondents' owners calculated. For the purposes of interpretation 4 & 5 (agree and strongly agree) were grouped together as agree, 1 & 2 (strongly disagree and disagree) were grouped as disagree while 3 was neutral. The results of this study are as depicted in Table 4.6.

**Table 4.6: Value Addition Strategy**

<b>Statement</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly agree</b>	<b>Mean</b>	<b>SD</b>
There is a symbol to identify your tea	33.7%	31.4%	12.8%	16.3%	5.8%	2.3	1.3
There is consumer loyalty for your tea	36.0%	26.7%	9.3%	12.8%	15.1%	2.4	1.5
Consumers identify with your tea	44.2%	29.1%	11.6%	5.8%	9.3%	2.1	1.3
Branding ensures quality	40.7%	25.6%	10.5%	12.8%	10.5%	2.3	1.4
Branding fetches better prices	38.4%	27.9%	10.5%	12.8%	10.5%	2.3	1.4
Local tea is mixed with imported for blending	33.7%	39.5%	9.3%	9.3%	8.1%	2.2	1.2
Blending improves quality	32.6%	25.6%	18.6%	8.1%	15.1%	2.5	1.4
Blending fetches better prices	40.7%	25.6%	5.8%	12.8%	15.1%	2.4	1.5
Blending increases market share	44.2%	26.7%	10.5%	5.8%	12.8%	2.2	1.4
Your factory has unique packaging	43.0%	24.4%	7.0%	12.8%	12.8%	2.3	1.5
The packaging is attractive to the customer	39.5%	27.9%	10.5%	12.8%	9.3%	2.2	1.3
Packaging has a symbol of brand	39.5%	24.4%	12.8%	12.8%	10.5%	2.3	1.4
Size of packaging determines sales	26.7%	36.0%	8.1%	16.3%	12.8%	2.2	1.4
Average						2.3	1.4

Finding in Table 4.6 presents the percentage of respondents along with their degree of agreement with the assertion of the influence of value addition strategy and performance of tea industry. Sixty-five point one 65.1% (33.7%+31.4%) of the respondents disagreed that there is unique symbol to identify the factory tea while 22.1% agreed with the statement. Regarding the statement that there is consumer loyalty for the factory tea, sixty-two point even (62.7%) of the respondents disagreed

that there is loyalty for their factories, 27.9% of the respondents agreed that there is loyalty in their tea.

The consumer identify with the response tea was a statement in Table 4.6 majority of the respondents who are 73.3.2% of the respondents disagreed that the consumers identify with their tea while 15.1% of the respondents agreed that the consumers identify with their tea. The other question on questionnaire in Table 4.6 is whether branding ensures quality of the tea, 66.3% of respondents disagreed that branding ensures quality while 33.3% of the respondents agreed. Further, 66.3% of the respondents disagreed that branding fetches better prices while 33.3% of the respondents agreed that branding fetches better prices. The respondents were also required to answer questions on blending.

In Table 4.6 also, the majority of the respondents who are 73.2% disagreed that local tea is mixed with imported tea for blending while 17.4% of the respondent agreed that the local tea is blended with imported tea. Blending is said to improve the quality but majority of the respondents who are 58.2% of the respondents disagreed that blending improves quality while 23.2% of the respondents strongly agreed that blending that blending improves quality. Blending fetches better prices was a statement in the questions where 66.3% of the respondents strongly disagreed that blending fetches better prices while 27.9% of the respondents agreed that blending fetches better prices. Blending increases market share but 70.9% of the respondents disagreed that blending increases market share.

In an interview session, Regional Management 1 indicated,

*“.... that 13% of factory’s total production goes for value addition process. The respondents indicated that value addition in the factory was aligned to 5 main processes. The process included tea packaging, tea blending, tea flavouring, tea branding and tea tagging”.*

In Table 4.6 the respondents were also required to respond on the questions relating to packaging. Majority 67.4% of the respondents indicated that they disagree that their factory has unique packaging while 25.6% of the respondents agreed that their

factories have unique packaging. Regarding the statement that issue of packaging attractiveness to customers to the customer, 67.4% of the respondents disagreed that the packaging is attractive to the customers while 22.1% of the respondents agreed that packaging is attractive to the customers. The issue of whether packaging has a symbol of brand was responded, 63.9% of the respondents strongly disagreed that packaging has a symbol of brand but only 23.3% of the respondents who disagreed that packaging has a symbol of brand. Finally, respondents were expected to state whether the size of packaging determines sales or not. Majority of the respondents disagreed that size of the packaging determines sales and this was as per 62.7% of the respondents while 29.1% of the respondents agreed that size of packaging determines the sales of tea.

Regional Management 3 noted:

*“..... For Kangaita Tea Factory Company Limited, 17% of the factory’s total production goes for value addition process. Mununga Tea Factory, Kimunye Tea Factory, Thumaita Tea Factory Company Ltd, Kathangariri Tea Factory Company Limited, Mungania and Rukuriri Tea factory all channelled revenue of between 9%-19% of individual factory’s total production for the purposes of value addition”.*

The mean score of the responses was 2.3 which show that there was disagreement with the statements on whether value addition and performance of tea industry in Kenya. The standard deviation was 1.4 shows that the responses were spread around the mean response. The findings of this study correspond with the empirical studies that states that Tea branding is one of the fastest growing industries in the agricultural brands development and has an enormous potential for promoting growth in the tea industry (Ping, 2010). Kumar (2013), suggests that the rapid change in consumer behaviour is likely to support branded tea market more than its unbranded segment and this collaborate the findings of this study. This study is agreeing with the view of Kelegama (2010) that argues that branding can play a significant role in increasing sales of value added tea. The composition of a blend, in terms of origins and estates, is a closely guarded commercial secret (Herath and Silva, 2011) and this is as per the findings in this study.

## 4.5.2 Technological Innovation

The second objective of the study was to investigate the influence of technological innovation strategy on performance of the tea industry in Mount Kenya region. To achieve the respondents were requested to indicate their levels of agreement on a five point Likert scale. (1 = Never, 2 = Rarely 3 = Sometimes, 4 = frequently, 5 = Always) was used and the mean response rate from the respondents' owners calculated. For the purposes of interpretation 4 & 5 (frequently and always) were grouped together, 1 & 2 (Never and rarely) were grouped while 3 remained Sometimes. The results of this study are as depicted in Table 4.7.

**Table 4.7: Technological Innovation**

Statement	Never	Rarely	Somet imes	Frequently	Always	Mean	SD
The factory has introduced modern technology in its operations	25.6%	39.5%	14.0%	7.0%	14.0%	2.4	1.3
Technology has reduced cost on workforce	22.1%	45.3%	4.7%	18.6%	9.3%	2.5	1.3
Technology has reduced wastage in the factory	33.7%	38.4%	7.0%	16.3%	4.7%	2.2	1.2
Technology has improved collection of tea	32.6%	33.7%	16.3%	9.3%	8.1%	2.3	1.2
Technology has improved weighing of tea leaves	34.9%	38.4%	11.6%	10.5%	4.7%	2.1	1.1
Technology has improved tea processing	32.6%	32.6%	11.6%	9.3%	14.0%	2.4	1.4
Technology has to development of new tea varieties	27.9%	44.2%	10.5%	11.6%	5.8%	2.2	1.2
Technology has increased market accessibility	29.1%	37.2%	11.6%	11.6%	10.5%	2.4	1.3
Technology has improved quality of tea	26.7%	39.5%	14.0%	12.8%	7.0%	2.3	1.2
Technology has enhanced knowledge	19.8%	44.2%	10.5%	15.1%	10.5%	2.5	1.3
There is heavy investment in technology	30.2%	34.9%	12.8%	14.0%	8.1%	2.3	1.3
There are incentives for innovations	29.1%	38.4%	8.1%	15.1%	9.3%	2.4	1.3
Average						2.3	1.3

Regarding the statement that the factory has introduced modern technology in its operations, 25.6% indicated never, 39.5% indicated rarely, 14.0% responded sometimes, 7.0% frequently while 14.0% indicated always. On the statement, technology has reduced cost on workforce, 22.1% indicated never, 45.3% indicated rarely, 4.7% responded sometimes, 18.6% frequently while 9.3% always. Regarding the statement that technology has reduced wastage in the factory, 33.7% responded never, 38.4% responded rarely, 7.0% responded sometimes, 16.3% frequently while 4.7% always. On the statement that technology has improved collection of tea 32.6% responded never while 33.7% responded rarely, 16.3% responded sometimes 9.3% frequently while 8.1% always.

Regarding the statement that technology has improved weighing of tea leaves, 34.9% indicated never while 38.4% responded rarely, 11.6% responded sometimes, 10.5% responded frequently while 4.7% always. On the statement technology has improved tea processing, 32.6% indicated never while 32.6% responded frequently, 11.6% indicated sometimes, 9.3% responded frequently while 14.0% responded always. Regarding the statement technology has to development of new tea varieties, 27.9% indicated never while 44.2% responded rarely, 10.5% responded sometimes, 11.6% responded frequently while 5.8% responded always.

On the statement that technology has increased market accessibility, 29.1% indicated never while 37.2% responded rarely. Further, regarding the statement technology has improved quality of tea 26.7% indicated never while 39.5% responded rarely, 14.0% responded sometimes, 12.8% responded frequently while 7.0% indicated always. On the statement technology has enhanced knowledge 19.8% indicated never while 44.2% responded rarely. Regarding the statement that there is heavy investment in technology 30.2% indicated never while 34.9% responded rarely. Finally, regarding the statement that there are incentives for innovations, 29.1% indicated never while 38.4% responded rarely, 8.1% responded sometimes, 15.1% responded frequently while 9.3% responded always.



Regional Management 4 during an interview session indicated:

*“..... Despite the significant role played by technological innovation in the growth of tea industry, majority of the tea factories have not adopted modern technologies in tea production and processing. This is attributed to high costs of acquiring the machines by participants. Modern and advanced fermentation machines, processing machines and pruning machines can lead to increased tea production. Only Thumaita Tea Factory Company Ltd and Kathangariri Tea Factories have actively introduced online marketing of their products. The rest of the factories had not adopted technology for marketing. They relied much on traditional ways of marketing tea products”.*

The mean score of the responses was 2.3 which show that there was disagreement with the statements on whether value addition and performance of tea industry in Kenya. The standard deviation was 1.3 shows that the responses were spread around the mean response.

This study agrees with the findings that of a study by Fagerberg and Srholec, (2007) that indicates that technology competitiveness is ability to compete successfully in markets for new goods and services and that Technology is critical in enhancing competitiveness of an industry particularly with the rapid globalization process. Wang et al. (2007) contend that the recent trend towards globalization and e-commerce has led to utilization of technology and has greatly influenced the competitiveness of industries and this supports the findings of this study.

This study finding differs slightly with the results in a study by Fagerburg and Srholec (2007) that has indicated that the deteriorating technology competitiveness is the major constraint to many industries in the developing countries. Like in this study, Castellacci (2008) argues that the focus of economic research has shifted from the analysis of price-and-cost related factors of competitiveness to the important role played by technological change. In addition, Matthyssens and Vandembemt (2008) argue that companies must break existing rules of the game and reshape the boundaries of the 26 industry in order to regain competitiveness and this correspond with the findings in this study.

### **4.5.3 Cost Reduction Strategy**

The third objective of the study was to examine whether cost reduction strategy influence performance of tea industry in Mount Kenya region. To achieve the respondents were requested to indicate their levels of agreement on a five point Likert scale. (1 = strongly disagree, 2 = Disagree 3 = Neutral, 4 = Agree, 5 = strongly agree) was used and the mean response rate from the respondents owners calculated. For the purposes of interpretation 4 & 5 (agree and strongly agree) were grouped together as agree, 1 & 2 (strongly disagree and disagree) were grouped as disagree while 3 was neutral. The results of this study are as depicted in Table 4.8.

**Table 4.8: Cost Reduction Strategy**

<b>Statement</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly agree</b>	<b>Mean</b>	<b>SD</b>
Administrative costs have been checked	30.2%	36.0%	18.6%	12.8%	2.3%	2.2	1.1
Procurement is done promptly	30.2%	34.9%	7.0%	14.0%	14.0%	2.5	1.4
Technology has reduced administrative cost	14.0%	5.8%	15.1%	36.0%	29.1%	4.3	1.2
Restructuring of management has reduced costs	8.1%	12.8%	10.5%	31.4%	37.2%	4.1	1.3
Training has reduced management costs	15.1%	12.8%	12.8%	29.1%	30.2%	3.7	1.4
Factory is stable financially	24.4%	44.2%	10.5%	14.0%	7.0%	2.3	1.2
Financial resources are spent according to the budget	33.7%	31.4%	11.6%	12.8%	10.5%	2.3	1.3
Loan portfolio has been reduced	26.7%	39.5%	9.3%	8.1%	16.3%	2.5	1.4
Factory is able to services loans	34.9%	41.9%	3.5%	5.8%	14.0%	2.2	1.4
Loans lead to lower earnings	31.4%	34.9%	12.8%	8.1%	12.8%	2.4	1.3
There are adequate financial controls	30.2%	36.0%	7.0%	12.8%	14.0%	2.4	1.4
Staff training have reduced effects of low skills on productivity and earnings	7.0%	12.8%	10.5%	31.4%	38.4%	2.3	1.3
Casual workers have reduced expense on salaries	9.3%	11.6%	14.0%	25.6%	39.5%	3.9	1.3
Technology has reduced workforce	11.6%	5.8%	14.0%	30.2%	38.4%	4.2	1.2
Retrenchments have reduced expenses on salaries	26.7%	40.7%	15.1%	10.5%	7.0%	2.3	1.2
Salary increments are not regular	26.7%	41.9%	12.8%	11.6%	7.0%	2.3	1.2
Low cost fertilizer has increased production	9.3%	11.6%	15.1%	34.9%	29.1%	3.7	1.4
Technology has increased production	11.6%	10.5%	10.5%	30.2%	38.4%	3.9	1.3
Training of farmers has improved output	9.3%	8.1%	9.3%	33.7%	39.5%	3.8	1.2
Maintenance have reduced cost	9.3%	10.5%	12.8%	31.4%	36.0%	3.7	1.3
Road infrastructure has reduced production cost	15.1%	5.8%	5.8%	41.9%	31.4%	2.1	1.3
Average						2.3	1.3

Table 4.8 presents percentage of respondents along with their degree of agreement with the assertion of the influence of cost reduction strategy and performance of tea industry. Regarding the statement that administrative costs have been checked 66.2% of the respondents disagreed while 15.1% agreed with the statement. Regarding the statement that procurement is done promptly 65.1% of the respondents disagreed while 28.0% of the respondents agreed. Regarding the statement that technology has reduced administrative cost, 19.8% of the respondents disagreed while 65.1% agreed that technology reduces administrative costs.

On the statement restructuring has of management has reduced costs majority 68.6% of the respondents agreed while 20.9% disagreed. On the statement that training has reduced management costs, 27.9% disagreed while 59.3% of the respondents agreed. On the statement factory is stable financially, 68.6% of the respondents disagreed while 21.0% agreed to the statement. On the statement financial resources are spent according to the budget, majority 65.1% disagreed while 23.3% agreed to the statement. Further, on the statement loan portfolio has been reduced, 66.2% of the respondents disagreed while 24.4% agreed to the statement. On the statement factory is able to services loans majority 76.8% of the respondents disagreed while 19.8% agreed.

Regarding the statement loans lead to lower earnings, majority 66.3% of the respondents disagreed while 20.9% disagreed. Further on the statement that there are adequate financial controls, majority 66.2% of the respondents disagreed while 26.8% agreed, regarding the statement that staff training have reduced effects of low skills on productivity and earnings 19.8% of the respondents disagreed while 69.8% agreed. On the statement that casual workers have reduced expense on salaries, 20.9% of the

respondents disagreed while 65.1% agreed. On the statement that technology has reduced workforce 17.4% of the respondents disagreed while 68.6% agreed.

Regarding the statement that retrenchments have reduced expenses on salaries, 67.4% of the respondents disagreed while 17.5% agreed. On the statement that salary increments are not regular, 68.6% of the respondents disagreed while 18.6% agreed. On the statement that low cost fertilizer has increased production, 20.9% of the respondents disagreed while 64.0% agreed. On the statement that technology has increased production, 22.1% disagreed while 67.4% agreed. Regarding the statement training of farmers has improved output, 17.4% disagreed while 73.2% agreed. On the statement that maintenance reduces cost, 19.8% of the respondents disagreed while 67.4% agreed. Finally regarding the statement that road infrastructure has reduced production cost, 20.9% disagreed while majority 73.3% agreed.

Regional manger 1 during an interview indicated that:

*“..... operational costs and other related costs reduce the profit margins of most factories. For instance, Kimunye Tea Factory had operational costs to a tune of 47% of total revenue. Adopting relevant technologies in production and process will minimize costs. Further there is need for competent human capital to drive the factories’ goals and objectives”.*

The findings of this study correspond with the results of study by Oluwagbemiga (2014) that indicates that the main goal or objective of any business organization is to make and maximize profit by reducing costs besides other objectives that include going concern, growth, corporate social responsibility, benefits to employees and so on. According to the findings of this study, the Tea industry in Kenya, which has been struggling with low earnings, can take a lesson from Kaliappen and Hilman, (2014). This will allow them to maximize their profits.

#### **4.5.4 Marketing Strategy**

The performance of the tea industry in the Mount Kenya region was the focus of the fourth objective of the study, which aimed to determine whether or not marketing

strategy influences that performance. To achieve the respondents were requested to indicate their levels of agreement on a five point Likert scale. (1 = strongly disagree, 2 = Disagree 3 = Neutral, 4 = Agree, 5 = strongly agree) was used and the mean response rate from the respondents' owners calculated. For the purposes of interpretation 4 & 5 (agree and strongly agree) were grouped together as agree, 1 & 2 (strongly disagree and disagree) were grouped as disagree while 3 was neutral. The results of this study are as depicted in Table 4.9.

**Table 4.9: Marketing Strategy**

<b>Statement</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly agree</b>	<b>Mean</b>	<b>SD</b>
There are efforts to establish new world markets	33.7%	38.4%	11.6%	7.0%	9.3%	2.2	1.2
There are efforts to popularize local markets	24.4%	40.7%	11.6%	7.0%	16.3%	2.1	1.4
There are clear distribution channels	26.7%	43.0%	11.6%	8.1%	10.5%	2.3	1.3
Marketing is part of the strategic goals of KTDA	10.5%	5.8%	4.7%	31.4%	47.7%	4.1	1.1
Marketing is part of capital expenditure in KTDA	10.5%	9.3%	9.3%	29.1%	41.9%	3.9	1.3
Factories carry out Market surveys	7.0%	11.6%	11.6%	23.3%	46.5%	3.8	1.2
There is investment in e-marketing	33.7%	36.0%	8.1%	8.1%	14.0%	2.3	1.4
Prices are competitive in the markets	15.1%	9.3%	4.7%	31.4%	39.5%	4.0	1.3
Average						2.3	1.3

Regarding the statement that there are efforts to establish new world markets majority 72.1% (33.7%+38.4%) of the respondents disagreed while 16.3% agreed with the statement. Regarding the statement that there are efforts to popularize local

markets 65.1% of the respondents disagreed while 23.3% of the respondents agreed. Regarding the statement that there are clear distribution channels, 69.7% of the respondents disagreed while 18.6% agreed. On the statement marketing is part of the strategic goals of KTDA majority 79.1% of the respondents agreed while 16.3% disagreed. On the statement that marketing is part of capital expenditure in KTDA, 19.8% disagreed while 71.0% of the respondents agreed. On the statement that factories carry out market surveys, 18.6% of the respondents disagreed while 69.8% agreed to the statement. On the statement that there is investment in e-marketing, majority 69.7% disagreed while 22.1% agreed to the statement. Finally regarding the statement that prices are competitive in the markets, 24.4% disagreed while majority 70.9% agreed.

During an interview session, Regional Manger 3 noted that:

*“.....most tea factories are promoting local consumption through awareness and affordable prices for tea if purchased directly from the factories. Some of the tea factories are in the process of partnering with regional markets and international markets to expand their market capitalization”.*

As indicated in this study Masoud (2013) indicated that Marketing strategies play fundamental role in the creation of marketing plans to reach marketing objectives and to be competitive. Zekiri and Angelova (2011) advised that companies that want to expand their activities in global markets need to do some market research and analysis this correspond with the findings of this study stat indicated that marketing strategies need to be prioritized if the tea factory is to progress well. According to Kotler and Keller (2012), decisions connected to analyzing and selecting target markets, product and brand creation, promotion, and distribution methods must be prioritized, which is consistent with the findings of this study. Particular strategic marketing in Tea industry is pertinent due to competitive nature of Tea markets and higher price demands by the farmers according to Dulekha (2008),but this differ with the findings of this study that indicated that apart from the prices the marketing strategies and marketing budget is are important factors in tea industry.

### 4.5.5 Implementation Strategy

The fifth objective of the study was to examine the influence of implementation strategy on performance of tea industry in Mount Kenya region. To achieve the respondents were requested to indicate their levels of agreement on a five point Likert scale. (1 = No extent, 2 = small extent 3 = moderate extent, 4 = large extent, 5 = very large extent) was used and the mean response rate from the respondents' owners calculated. For the purposes of interpretation 4 & 5 (large extent and very large extent) were grouped together, 1 & 2 (No extent and small extent) were grouped while 3 remained as moderate extent. The results of this study are as depicted in Table 4.10.

**Table 4.10: Implementation Strategy**

Statement	No extent	small extent	moderate extent	large extent	very large extent	Mean	SD
Allocate resources needed to implement the strategies	5.8%	5.8%	14.0%	30.2%	44.2%	4.1	1.1
Evaluate organization's capabilities	5.8%	5.8%	12.8%	36.0%	39.5%	3.9	1.1
Review and give feedback on performance	8.1%	11.6%	8.1%	31.4%	40.7%	3.5	1.3
Re-structuring of the organization	7.0%	10.5%	10.5%	30.2%	41.9%	4.3	1.3
Adoption of an implementation plan	10.5%	14.0%	7.0%	34.9%	33.7%	3.7	1.4
defining and implementing strategies	9.3%	4.7%	10.5%	33.7%	41.9%	3.9	1.1
Define and review vision, mission and values	8.1%	5.8%	12.8%	27.9%	45.3%	4.2	1.1
Mobilization of change by the executive leadership	9.3%	11.6%	7.0%	31.4%	40.7%	4.0	1.3
Coordination across functional boundaries	15.1%	8.1%	7.0%	23.3%	46.5%	4.4	1.2
Control of resource utilization	9.3%	7.0%	4.7%	43.0%	36.0%	4.0	1.2
Coordination across departments	14.0%	7.0%	5.8%	33.7%	39.5%	4.2	1.2
Establish annual objectives	7.0%	8.1%	8.1%	37.2%	39.5%	3.7	1.2
Provide incentives for employees to carry out the strategies effectively	8.1%	11.6%	5.8%	33.7%	40.7%	4.2	1.3
Communication on strategic expectations to all	9.3%	5.8%	9.3%	24.4%	51.2%	4.0	1.1
Average						4.1	1.2

Regarding the statement that allocated resources needed to implement the strategies 74.4% of the respondents indicated large extent while 11.6% indicated little or low



extent. Regarding the statement that strategy implementation evaluates organization's capabilities 75.5% respondent as large extent. Regarding the statement that strategy implementation reviews and give feedback on performance, 72.1% indicated to large extent, on the statement re-structuring of the organization, majority 72.1% indicated large extent. Further, regarding the statement adoption of an implementation plan, majority 68.6% of the respondents responded as large extent. On the statement defining and implementing strategies, 75.6% of the respondents indicated large extent.

On the statement to define and review vision, mission and values, 73.2% of the respondents rated it to large extent. Further, on the statement mobilization of change by the executive leadership 72.1% of the respondents rated it to large extent. On the statement coordinating across functional boundaries, leadership 69.8% of the respondents rated it to large extent. Further on the statement controlling resource utilization, 79.0% of the respondents rated it to large extent. Regarding the statement coordination across departments, 73.2% of the respondents rated it to large extent. On the statement that establishment of annual objectives, 76.7% rated it to large extent. Further regarding the statement providing incentives for employees to carry out the strategies effectively, majority 74.4% of the respondents indicated large extent. Finally, on the statement communication on strategic expectations to all, 75.6% of the respondents indicated large extent.

The results are in agreement with Chand (2017) who conducted a study to assess the influence of strategic options on performance of Unilever Tea Kenya Ltd and found a significant positive relationship that exist between product reengineering and competitive business advantage. This finding is consistent with Odhiambo (2015) who conducted a study on strategy implementation and performance of major tea factories in Kericho County and established that a relationship exists between strategy implementation practices adopted by the tea factories in Kericho County and performance. Most tea factories place more emphasis on financial measures of performance and believe strategy implementation has greater impact on these financial measures.

## 4.5.6 Performance of the Tea Industry in Mount Kenya Region

### 4.5.6.1 Non-Financial Performance of the Tea Industry in Mount Kenya Region

To present the results the respondents were requested to indicate their levels of agreement on a five point Likert scale. (1 = strongly disagree, 2 = Disagree 3 = Neutral, 4 = Agree, 5 = strongly agree) was used and the mean response rate from the respondents' owners calculated. For the purposes of interpretation 4 & 5 (agree and strongly agree) were grouped together as agree, 1 & 2 (strongly disagree and disagree) were grouped as disagree while 3 was neutral. The results of this study are as depicted in Table 4.9.

**Table 4.11: Performance of the Tea Industry**

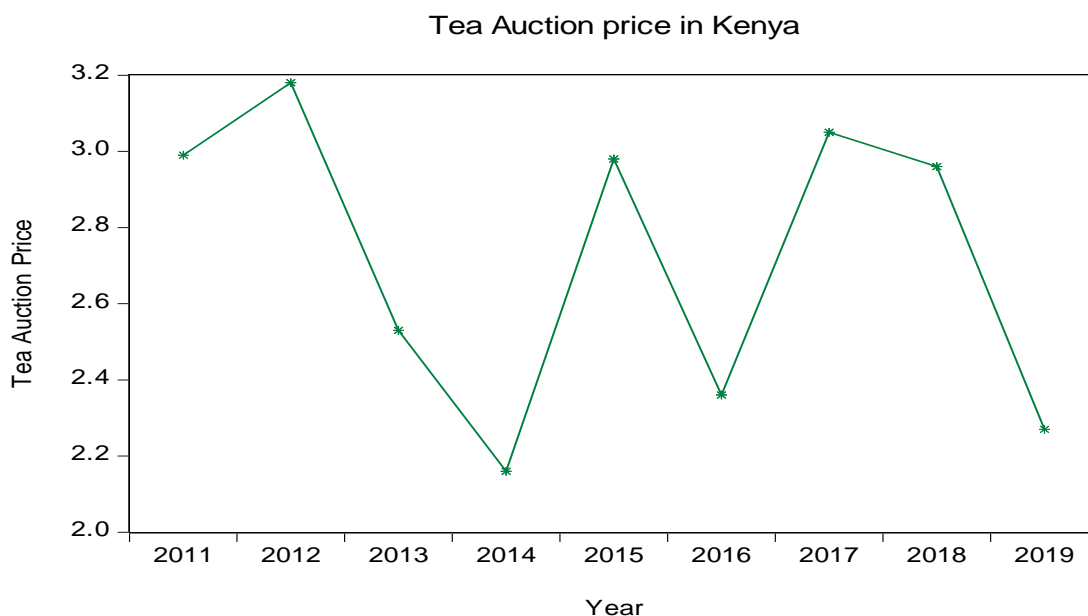
Statement	Strongly disagree	Disagree	Undecided	Agree	Strongly agree	Mean	SD
Value addition in terms of packaging influence tea prices	11.6%	14.0%	4.7%	36.0%	33.7%	3.7	1.4
Does cost reduction affect performance in tea industry	9.3%	9.3%	9.3%	36.0%	36.0%	3.8	1.3
Does Technology adoption and innovation affect performance in tea industry	7.0%	5.8%	10.5%	45.3%	31.4%	3.9	1.1
Does E-marketing influence performance in tea industry	11.6%	9.3%	7.0%	48.8%	23.3%	3.6	1.3
Strategic implementation influence performance in tea industry	4.7%	12.8%	8.1%	44.2%	30.2%	3.8	1.1
Average						3.8	1.2

Regarding the statement that value addition in terms of packaging influence tea prices 69.7% of the respondents agreed while 25.6% disagreed with the statement. Regarding the statement cost reduction affect performance in tea industry majority 72.0% of the respondents agreed while 18.6% disagreed. Further on the statement

that technology adoption and innovation affect performance in tea industry, majority 76.7% of the respondents agreed while 12.8% disagreed. Regarding the statement that E-marketing influence performance in tea industry, majority 72.1% of the respondents agreed while 12.8% disagreed. Finally, on the statement implementation strategy influence performance in tea industry, majority 74.4% of the respondents agreed while 17.5% disagreed. The mean was 3.8 an indication that majority of the respondents were agreeing to the statements in the questionnaire. The standard deviation was 1.2, an indication that responses were clustered around the mean response.

#### 4.5.6.2 Financial Performance of the Tea Industry in Mount Kenya Region

The performance of tea in Kenya was measured in terms of tea auction price. Results of the study are presented in Figure 4.4. Results indicate that auction price was highest in 2012 at 3.18 US \$/kg and lowest in 2014 at 2.14 US \$/kg. It is evident from the figure that auction price for Kenyan tea at the international market has been fluctuating undermining performance of tea. Compared to Rwandan tea that is auctioned at 3.28 US \$/kg, Kenyan tea slightly underperforms.



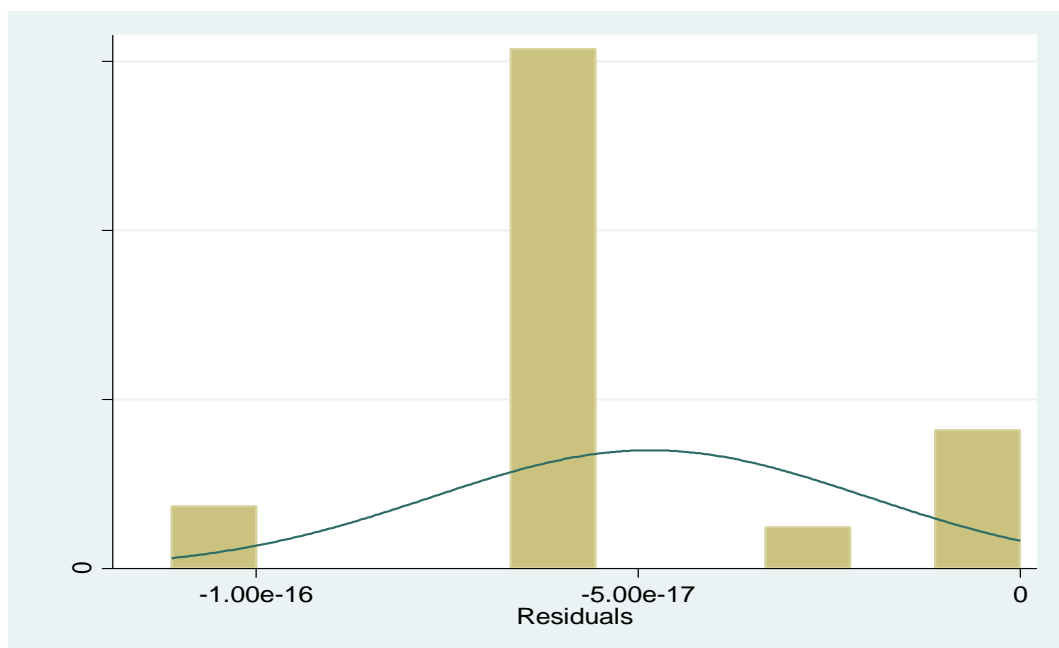
**Figure 4.4: Tea Auction Price in Kenya 2011-2019**

## 4.6 Diagnostic Tests

The study conducted various tests and these tests included test for normality, test for multicollinearity, unit root test, heteroscedasticity test and test for autocorrelation

### 4.6.1 Test for Normality

The study sought to establish whether performance of tea industry is normally distributed using the graphical method approach.



**Figure 4.5: Test for Normality**

The results showed a bell-shaped indicating that the residuals are normally distributed performance of tea industry is normally distributed as shown in the Figure 4.5.

### 4.6.2 Multicollinearity Test

Multicollinearity exists when two or more of the predictors in a regression model are moderately or highly correlated thereby limiting the research conclusions to be drawn. According to Zainodin, Noraini, and Yap (2011), multicollinearity refers to the presence of correlations between the predictor variables. In severe cases of

perfect correlations between predictor variables, multicollinearity can imply that a unique least squares solution to a regression analysis cannot be computed (Field, 2009). According to Field (2009) VIF values in excess of 10 is an indication of the presence of Multicollinearity.

Multicollinearity inflates the standard errors and confidence intervals leading to unstable estimates of the coefficients for individual predictors. Multicollinearity was assessed in this study using the Variance Inflation Factor (VIF) as shown in Table 4.12.

**Table 4.12: Variance Inflation Factor**

<b>Variable</b>	<b>VIF</b>	<b>1/VIF</b>
Value addition strategy	2.26	0.442598
Technology innovation strategy	2.06	0.485644
Cost reduction strategy	2.01	0.498040
Marketing strategy	1.87	0.533539
Strategy implementation	1.93	0.518135
Mean	1.98	

Results were presented in Table 4.12. A variance inflation factor test was conducted to test for multicollinearity of the predictors and a value less than 10 is acceptable. Value addition strategy had V.I.F value of 2.26 which is less than 10 implying there is no multicollinearity. Under Technology innovation strategy a V.I.F value of 2.06 means that there is no multicollinearity in since VIF is less than 10. The results indicated that cost reduction strategy had a V.I.F value of 2.01 implying there is no multicollinearity in cost reduction strategy since VIF is less than 10. Further, marketing strategy had a V.I.F value of 1.87 implying no multicollinearity. Finally, strategy implementation had a V.I.F value of 1.93 implying no multicollinearity since VIF is less than 10.

#### **4.6.3 Heteroscedasticity Test**

Heteroscedasticity refers to circumstance in which the variability of a variable is unequal across the range of values of a second variable that predicts it. In this case,

the variability of the dependent variable widens or narrows as the independent variable increases thus the inverse is Homoscedastic within cross-sectional units. However, its variance may differ across units: a condition known as group wise Heteroscedasticity. The Breuch-Pagan test tests for the variability of the model residuals. The null hypothesis was that data has constant variance while the alternative hypothesis was that data has non-constant variance.

**Table 4.13: Heteroscedasticity Results**

Test Statistic	P-Value
7.87	0.0510
Ho : Constant Variance	

The results in Table 4.13 indicate that the null hypothesis of Heteroscedastic error terms is not rejected as supported by a p-value of 0.0510 which is greater than 0.05 implying there is no Heteroscedasticity. This test suggests that the data is homoscedastic.

#### 4.6.4 Test for Autocorrelation

To establish whether or not the residuals are serially correlated over time, Breusch-Godfrey test for autocorrelation was conducted. The null hypothesis is that no first order serial or auto correlation exists when the p-value is greater than 0.05.

**Table 4.14: Test for Autocorrelation**

Test Statistic	P-Value
17.433	0.823
H <sub>0</sub> : No Serial Correlation	

From the Table 4.14 the null hypothesis of no serial correlation was not rejected given that the p-value was greater than 0.05 (p-value = 0.823) implying that there is no autocorrelation thus residuals are serially correlated.

### 4.6.5 Linearity Test

Scatter plots were used to test for linearity and to visually show whether there was a linear or curvilinear relationship between two continuous variables before carrying out regression analysis. Regression models can only accurately estimate the relationship between dependent and independent variables if the relationship is linear (Osborne & Waters, 2002). Figure 4.6 shows the linearity test for the study.

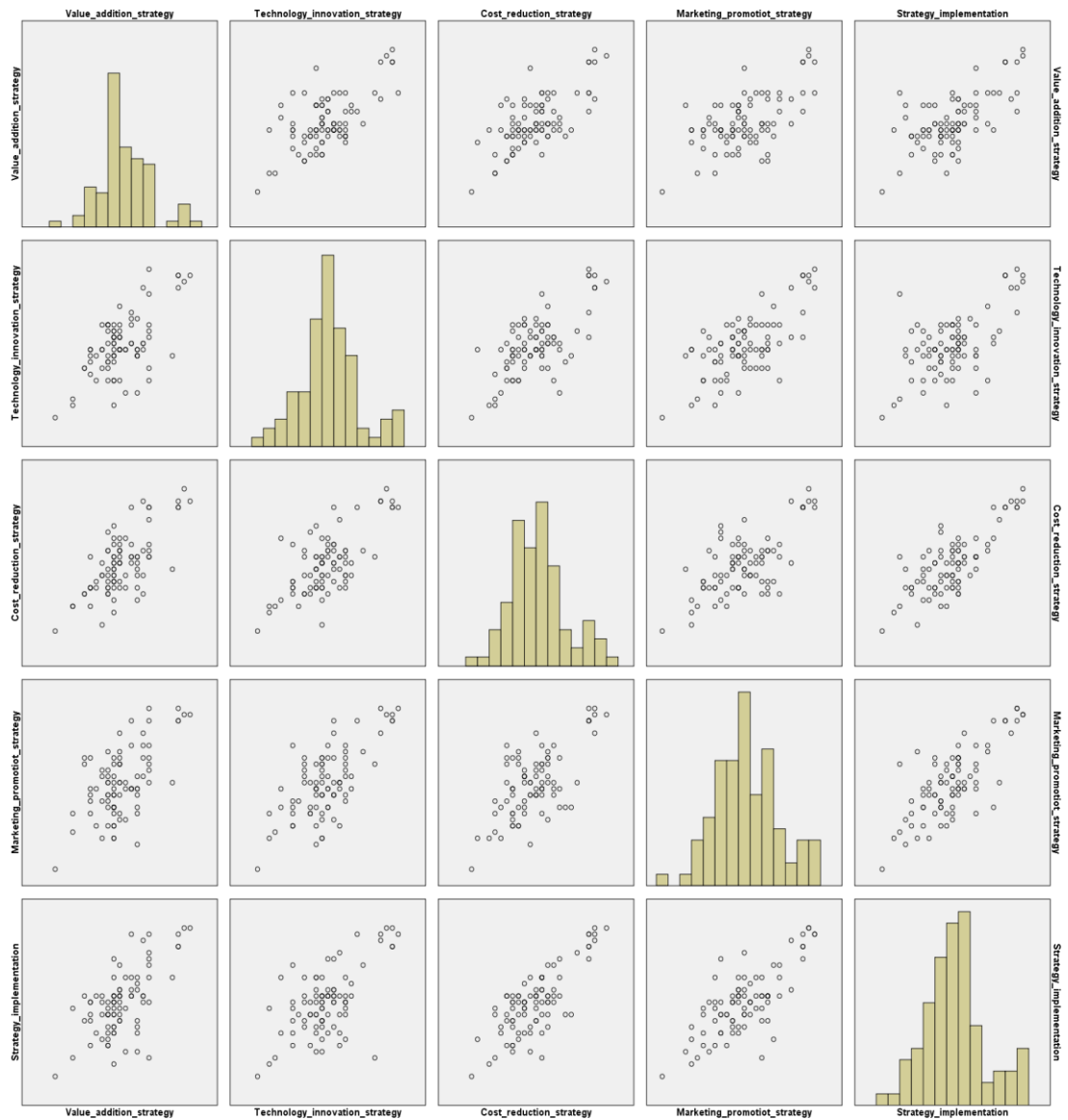


Figure 4.6: Linearity Test

The linearity test indicates the relationship between dependent and independent variables. For linear regression to be conducted, the relationship between the independent and dependent variables needs to be linear. The linearity assumption can best be tested with scatter plots and graphs. The linearity test results show that the data set was exhibiting linear pattern hence we can conduct linear regression.

#### **4.7 Correlation Analysis**

Correlation analysis is the statistical tool that can be utilized to determine the level of association between two variables (Levin & Rubin, 1998). This analysis can be seen as the initial step in statistical modelling to determine the association between the dependent and independent variables. Prior to carrying out a multiple regression analysis, a correlation matrix was developed to analyse the strength of association between the independent variables as this would assist in developing a prediction multiple model which will reveal no relationship in cases where the value of the correlation is 0. On the other hand, a correlation of  $\pm 1.0$  means there is a perfect positive or negative relationship (Hair et al., 2010). Also, the relationship is considered small when  $r = \pm 0.1$  to  $\pm 0.29$ , while the relationship is considered medium when  $r = \pm 0.30$  to  $\pm 0.49$ , and when  $r$  is  $\pm 0.50$  and above, the relationship can be considered strong. The results of the correlation matrix are presented in Table 4.15.



**Table 4.15: Correlation Matrix**

Variable		Performance of tea industry	Value addition strategy	Technology innovation strategy	Cost reduction strategy	Marketing strategy	Implementation Strategy
Performance of tea industry	Pearson Correlation	1.000					
	Sig. (2-tailed)						
Value addition strategy	Pearson Correlation	.732*	1.000				
	Sig. (2-tailed)	0.000					
Technology innovation strategy	Pearson Correlation	.748*	.630*	1.000			
	Sig. (2-tailed)	0.000	0.000				
Cost reduction strategy	Pearson Correlation	.820*	.693*	.692*	1.000		
	Sig. (2-tailed)	0.000	0.000	0.000			
Marketing strategy	Pearson Correlation	.806*	.592*	.687*	.682*	1.000	
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		
Implementation Strategy	Pearson Correlation	.827*	.636*	.603*	.781*	.750*	1.000
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	

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

Results in Table 4.15 indicated that there was a strong positive association between value addition strategy and performance of tea industry ( $r=.732$ ). The results showed value addition strategy was significant with performance of tea industry since the p-value is less than 0.05 ( $p=0.000$ ). The results are in agreement with Tsalwa and Theuri (2016) who conducted a study on factors affecting value addition to tea by buyers within the Kenyan Tea Trade Value Chain and established that there is a significant relationship between buyers' strategic decisions, personnel skills and value addition to tea.

Results in further indicated that there was a strong positive association between technology innovation strategy and performance of tea industry ( $r=.748$ ). The results

showed technology innovation strategy was significant with performance of tea industry since the p-value is less than 0.05 ( $p=0.000$ ). The results are in agreement with Oluoch and Osida (2016) that use of information technology use in tea research that can lead to more efficient communication and increased demand for the firm's products and services. Further results indicated that there was a strong positive association between cost reduction strategy and performance of tea industry ( $r=.820$ ). The results showed cost reduction strategy was significant with performance of tea industry since the p-value is less than 0.05 ( $p=0.000$ ).

It was also established that there is a strong positive association between marketing strategy and performance of tea industry ( $r=.806$ ). The results showed marketing strategy was significant with performance of tea industry since the p-value is less than 0.05 ( $p=0.000$ ). The results are in agreement with Naimu and Kaimba (2014) who conducted a study on the impact of cost reduction strategies on performance of tea factories in Embu County and found that the factories employed cost reduction measures to increase performance of the tea industry.

Finally, results in Table 4.12 indicated that there is a strong positive association between strategy implementation and performance of tea industry ( $r=.827$ ). The results showed strategy implementation is significant with performance of tea industry since the p-value is less than 0.05 ( $p=0.000$ ). The results are in agreement with Chand (2017) who conducted a study to assess the influence of strategic options on performance of Unilever Tea Kenya Ltd and found a significant positive relationship that exist between product reengineering and competitive business advantage.

#### **4.8 Simple Linear Regression Analysis**

Simple linear regression was conducted for hypotheses testing. The study sought to determine the significance of the independent variables (value addition strategy, technology innovation strategy, cost reduction strategy, marketing strategy and strategy implementation) to the dependent variable (performance of tea industry). When the p-value is less than 0.05 then it implies that the result is significant.

### 4.8.1 Value Addition Strategy

The first objective of the study was to establish whether value addition strategy influences performance of the tea industry in Mount Kenya region. Ordinary least square regression analysis was conducted and the results represented on Table 4.16.

**Table 4.16: Model Fitness**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.732	.536	.531	.39239

The coefficient of determination also known as the R square was found to be 0.536 (53.6%). This means that value addition strategy explains 53.6% of the variations in the dependent variable which is performance of the tea industry in Mount Kenya region. The results are in agreement with Tsalwa and Theuri (2016) who conducted a study on factors affecting value addition to tea by buyers within the Kenyan Tea Trade Value Chain and established that there is a significant relationship between buyers' strategic decisions, personnel skills and value addition to tea. Table 4.17 presents the Analysis of Variance (ANOVA) statistics.

**Table 4.17: Analysis of Variance**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	14.948	1	14.948	97.083	.000
Residual	12.933	84	.154		
Total	27.881	85			

The results in Table 4.17 indicate that the overall model was statistically significant. The results imply that the value addition strategy is satisfactory in explaining the performance of the tea industry in the Mount Kenya region. This is supported by an F statistic of 97.083 and the reported p-value of 0.000, which is less than the conventional probability significance level of 0.05, implying that value addition strategy is significant in predicting the performance of the tea industry in the Mount Kenya region. Regression of coefficient results is presented in Table 4.18.

**Table 4.18: Value Addition Strategy and Performance t Tea Industry**

Model	Unstandardized Coefficients		Standardized t	Sig.
	B	Std. Error	Beta	
(Constant)	.046	.307	.150	.881
Value addition strategy	.987	.100	.732	9.853

Regression coefficients in Table 4.18 revealed a positive and significant relationship between value addition strategy and performance of the tea industry ( $\beta=0.987$ ,  $p=0.000$ ). This finding is consistent with Tsalwa and Theuri (2016) who established a significant relationship between buyers' strategic decisions, personnel skills and value addition to tea. The value addition strategy simple regression model is

$$Y = \beta_0 + \beta_1 X_1$$

$$Y = .046 + .987 X_1$$

Where

Y= Performance of the tea industry

X<sub>1</sub>= Value addition strategy

The hypothesis was tested using the simple linear regression model as shown in Table 4.19. The study tested the given null hypothesis:

**H<sub>01</sub>: Value addition strategy has no significant influence on performance of the tea Industry in Mount Kenya region.**

The criterion for rejecting null hypothesis is to reject the null hypothesis if the calculated t value is greater than the critical value of 1.96. The results in Table 4.19 show that the calculated value of  $9.853 > 1.96$ , hence, the null hypothesis was rejected. Hence, there is a significant relationship between value addition strategy and performance of the tea industry in Mount Kenya Region.

**4.8.2 Technology innovation strategy**

The second objective of the study was to investigate the influence of technological innovation strategy on performance of the tea industry in Mount Kenya region. Ordinary least square regression analysis was conducted and the results represented on Table 4.19.

**Table 4.19: Model Fitness**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
	.748	.560	.555	.38216

The coefficient of determination also known as the R square was found to be 0.560 (56.0%). This means that technological innovation strategy explains 56.0% of the variations in the dependent variable which is performance of the tea industry in Mount Kenya region. The results are in agreement with Oluoch and Osida (2016) that use of information technology use in tea research that can lead to more efficient communication and increased demand for the firm's products and services. Table 4.20 presents the Analysis of Variance (ANOVA) statistics.

**Table 4.20: Analysis of Variance**

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	15.613	1	15.613	106.908	.000
Residual	12.268	84	.146		
Total	27.881	85			

The results in Table 4.20 indicate that the overall model was statistically significant. This is supported by an F statistic of 106.908 and the reported p-value of 0.000, which is less than the conventional probability significance level of 0.05, implying that technological innovation strategy is significant in predicting the performance of the tea industry in the Mount Kenya region. Regression of coefficient results is presented in Table 4.21.

**Table 4.21: Technology Innovation Strategy and Performance of the Tea Industry**

Model	Unstandardized Coefficients		Standardized t	Sig.	
	B	Std. Error	Beta		
(Constant)	.399	.258	1.543	.127	
Technology innovation strategy	.887	.086	.748	10.340	.000

Regression coefficients in Table 4.21 revealed a positive and significant relationship between technology innovation strategy and performance of the tea industry ( $\beta=0.887$ ,  $p=0.000$ ). The results are consistent with the findings of Ongong'a and Ochieng (2013), which showed that innovative strategies adopted result in increased revenues, high productivity levels and reduced costs

$$\text{The model was; } Y = .399 + .887X_2$$

Where Y= Performance of the tea industry;  $X_2$ = Technology innovation strategy

The hypothesis was tested

**H<sub>02</sub>: Technology innovation strategy has no significant influence on performance of the tea Industry in Mount Kenya region.**

The null hypothesis was rejected since the calculated t value was  $10.340 > 1.96$ . Hence, there is a significant relationship between technology innovation strategy and performance of the tea industry in Mount Kenya Region.

### 4.8.3 Cost Reduction Strategy

The third objective of the study was to examine whether cost reduction strategy influence performance of tea industry in Mount Kenya region. Ordinary least square regression analysis was conducted and the results represented on Table 4.22.

**Table 4.22: Model Fitness**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.820	.673	.669	.32960

The coefficient of determination also known as the R square was found to be 0.673 (67.3%). This means that cost reduction strategy explains 67.3% of the variations in the dependent variable which is performance of the tea industry in Mount Kenya region. Table 4.23 presents the Analysis of Variance (ANOVA) statistics.

**Table 4.23: Analysis of Variance**

Model		Sum of Squares	df	Mean Square	F	Sig.
Regression		18.755	1	18.755	172.645	.000
Residual		9.125	84	.109		
Total		27.881	85			

Table 4.23 indicate that the overall model was statistically significant as the F statistic was 172.645 with a reported p-value of 0. 000. The study implied that a cost reduction strategy is critical in influencing the performance level. The regression of coefficient results is presented in Table 4.24

**Table 4.24: Cost Reduction Strategy and Performance of the Tea Industry**

Model	Unstandardized Coefficients		Standardized t	Sig.
	B	Std. Error	Beta	
(Constant)	.117	.225	.518	.606
Cost reduction strategy	.978	.074	.820	.000

Regression coefficients in Table 4.24 revealed a positive and significant relationship between cost reduction strategy and performance of the tea industry ( $\beta=0.978$ ,  $p=0.000$ ). This finding is consistent with Wanjira, Kubaison and Nzomo (2016) who conducted a study on the effect of innovation on performance of KTDA managed factories in Meru County and concluded that there is a positive effect of cost reduction strategies on the performance of tea factories. The cost reduction strategies help in minimizing costs of production as well as costs of labour that having a positive impact on the return to the farmer.

$$\text{The model was } Y = .117 + .978X_3$$

Where  $X_3$  = Cost reduction strategy

The study tested the given null hypothesis:

**H<sub>03</sub>: Cost reduction strategy has no significant influence on performance of the tea Industry in Mount Kenya region.**

The null hypothesis was rejected since the calculated t value was  $13.139 > 1.96$  as depicted in Table 4.25. Therefore, there is a significant relationship between cost reduction strategy and performance of the tea industry in Mount Kenya Region.

#### **4.8.4 Marketing Strategy**

The fourth objective of the study was to determine whether marketing strategy influences performance of the tea industry in Mount Kenya region. Ordinary least square regression analysis was conducted and the results represented on table 4.25.

**Table 4.25: Model Fitness**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
	.806	.649	.645	.34117

The coefficient of determination also known as the R square was 0.649 (64.9%). This means that marketing strategy explain 64.9% of the variations in the dependent



variable which is performance of the tea industry in Mount Kenya region. The results are in agreement with Kahsay (2018) who established that the domestic market of the Kenyan tea is shrinking due to unfavorable marketing strategies. Table 4.26 presents the Analysis of Variance (ANOVA) statistics.

**Table 4.26: Analysis of Variance**

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	18.104	1	18.104	155.533	.000
Residual	9.777	84	.116		
Total	27.881	85			

Table 4.26 indicate that the overall model was statistically significant as supported by an F statistic of 155.533 and the reported p-value of 0.000. Thus, marketing strategy is fundamental in determining performance. The regression of coefficient results is presented in Table 4.27

**Table 4.27: Marketing Strategy and Performance of the Tea Industry**

<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
(Constant)	.505	.206		2.447	.016
Marketing strategy	.844	.068	.806	12.471	.000

Regression coefficients in Table 4.27 revealed a positive and significant relationship between marketing strategy and performance of the tea industry ( $\beta=0.844$ ,  $p=0.000$ ). This finding is consistent with Majamanda (2016) who reported there is a positive linear relationship between sales promotions and market share, sales promotions and market share and market share versus competition.

$$\text{The model was } Y = .505 + .844X_4$$

Where;  $X_4$ = Marketing strategy;  $Y$ =Performance

The study tested the given null hypothesis:

**H<sub>04</sub>: Marketing strategy has no significant influence on performance of the tea Industry in Mount Kenya region.**

The results in Table 4.28 show that the calculated t value of 12.471 > 1.96, hence, the null hypothesis was rejected. Hence, there is a significant relationship between marketing strategy and performance of the tea industry in Mount Kenya region.

#### **4.8.5 Implementation strategy**

The fifth objective of the study was to examine the influence of implementation strategy on performance of tea industry in Mount Kenya region. Ordinary least square regression analysis was conducted and the results represented on Table 4.28.

**Table 4.28: Model Fitness**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
	.827	.683	.680	.32419

The coefficient of determination also known as the R square was found to be 0.683 (68.3%). This means that implementation strategy explains 68.3% of the variations in the dependent variable which is performance of the tea industry in Mount Kenya region. The results are in agreement with Chand (2017) who established that strategic alliances and corporate rebranding influence performance. Table 4.29 presents the Analysis of Variance (ANOVA) statistics.

**Table 4.29: Analysis of Variance**

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	19.053	1	19.053	181.289	.000
Residual	8.828	84	.105		
Total	27.881	85			

Table 4.29 indicate that the overall model was statistically significant, as supported by the F statistic of 181.289 and p-value of 0.000. Hence, it can be argued that implementation strategy is potent in determining the performance level. The regression of coefficient results are presented in Table 4.30

**Table 4.30: Implementation Strategy and Performance of the Tea Industry**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.309	.206		1.501	.137
Implementation strategy	.909	.068	.827	13.464	.000

Regression coefficients in Table 4.30 revealed a positive and significant relationship between implementation strategy and performance of the tea industry ( $\beta=0.909$ ,  $p=0.000$ ). Thus, a unitary change in implementation strategy leads to an increase in performance of the tea industry by .909 units while others factors are held constant. This finding is in consistent with Odhiambo (2015) who established strategy implementation has a positive effect on performance.

The model was  $Y=.309+.909X_5$

Where  $X_5$ = Implementation strategy;  $Y$ =Performance

The study tested the given null hypothesis:

**$H_{05}$ : Implementation strategy has no significant influence on performance of the tea Industry in Mount Kenya region.**

It was reported that the null hypothesis was rejected since the study results in Table 4.31 show that the calculated t value of  $13.464 > 1.96$ . Thus, there is a significant relationship between implementation strategy and performance of the tea industry in Mount Kenya region.

#### 4.9 Multiple Linear Regression Analysis

The results presented in Table 4.31 present the overall fitness model used of the regression model in explaining the study phenomena.

**Table 4.31: Model Fitness**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.917	.841	.831	.23559

The coefficient of determination also known as the R square was found to be 0.841 (84.1%). This means that independent variables explain 84.1% of the variations in the dependent variable which is performance of the tea industry in Mount Kenya region. Table 4.32 provides the results on the analysis of the variance (ANOVA).

**Table 4.32: Analysis of Variance (ANOVA)**

Model	Sum Squares	ofdf	Mean Square	F	Sig.
Regression	23.441	5	4.688	84.465	.000
Residual	4.440	80	.056		
Total	27.881	85			

The results in Table 4.32 indicate that the overall model was statistically significant. The results imply that value addition strategy, technology innovation strategy, cost reduction strategy, marketing strategy and implementation strategy are satisfactory in explaining performance of the tea industry in Mount Kenya region. This is supported by an F statistic of 84.465 and the reported p-value of 0.000, which is less than the conventional probability significance level of 0.05, implying that value addition strategy, technology innovation strategy, cost reduction strategy, marketing strategy and implementation strategy are significant in predicting the performance of the tea industry in the Mount Kenya region. Regression of coefficient results is presented in Table 4.33

**Table 4.33: Regression of Coefficients**

Model	Unstandardized Coefficients		Standardized t	Sig.
	B	Std. Error	Beta	
(Constant)	.638	.194	3.291	.001
Value addition strategy	.217	.089	.161	.017
Technology innovation strategy	.197	.083	.166	.020
Cost reduction strategy	.253	.099	.212	.012
Marketing strategy	.258	.079	.246	.002
Strategy implementation	.301	.090	.274	.001

Regression of standardized coefficients results in table 4.33 shows that value addition strategy and performance of the tea industry in Mount Kenya region are positively and significantly related ( $r=.217$ ,  $p=0.017$ ). The results are in agreement with Tsalwa and Theuri (2016) who conducted a study on factors affecting value addition to tea by buyers within the Kenyan Tea Trade Value Chain and established that there is a significant relationship between buyers' strategic decisions, personnel skills and value addition to tea. The Table 4.34 further indicates that technology innovation strategy and performance of the tea industry are positively and significantly related ( $r=.197$ ,  $p=0.020$ ). The results are in agreement with Oluoch and Osida (2016) that use of information technology use in tea research that can lead to more efficient communication and increased demand for the firm's products and services.

It was further established that cost reduction strategy and performance of the tea industry are positively and significantly related ( $r=.253$ ,  $p=0.012$ ). This finding is consistent with Wanjira, Kubaison and Nzomo (2016) who conducted a study on the effect of innovation on performance of KTDA managed factories in Meru County and concluded that there is a positive effect of cost reduction strategies on the performance of tea factories. The cost reduction strategies help in minimizing costs of production as well as costs of labour that having a positive impact on the return to the farmer.

Further, the study established that marketing strategy and performance of the tea industry are positively and significantly related ( $r=.258$ ,  $p=0.002$ ). The results are in agreement with Wanjiru, Wangare, Muchina and Kimani (2016) who conducted a study on effects of marketing strategies on sustainable domestic market and return to the smallholder tea enterprise and established that the domestic market of the Kenyan tea is shrinking due to unfavorable marketing strategies. Finally, the study established that strategy implementation and performance of the tea industry are positively and significantly related ( $r=.301$ ,  $p=.001$ ). The results are in agreement with Chand (2017) who conducted a study to assess the influence of strategic options on performance of Unilever Tea Kenya Ltd and found a significant positive relationship that exist between product reengineering and competitive business advantage.

The multiple regression indicated that strategy implementation had the largest influence on performance of the tea industry in Mount Kenya region with a standardised coefficient of .301, followed by that marketing strategy (.258), cost reduction strategy (.253), value addition strategy (.217) and finally technology innovation strategy (0.197).

The overall model was  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5$

Thus, the overall model for the study is  $Y = .638 + .217X_1 + .197X_2 + .253X_3 + .258X_4 + .301X_5$

Where:

$Y$  = Performance of the tea industry in Mount Kenya region

$X_1$  = Value addition strategy;  $X_2$  = Technology innovation strategy;  $X_3$  = Cost reduction strategy;  $X_4$  = Marketing strategy;  $X_5$  = Strategy implementation.

#### 4.10 Summary Hypotheses Testing

The hypothesis was tested using the simple linear regression model. The hypothesis was done per objective. The results of hypotheses are summarized in table 4.34.

**Table 4.34: Summary of Hypotheses**

No	Objective	Hypothesis	Rule	p-value	Comment
1	To establish whether value addition strategy influences performance of the tea industry in Mount Kenya region	<b>H<sub>01</sub>:</b> Value addition strategy has no significant influence on performance of the tea Industry in Mount Kenya region	Reject <b>H<sub>01</sub></b> if t value >1.96	t>1.96	There is a significant relationship between value addition strategy and performance of the tea industry in Mount Kenya region
2	To investigate the influence of technological innovation strategy on performance of the tea industry in Mount Kenya region	<b>H<sub>02</sub>:</b> Technology innovation strategy has no significant influence on performance of the tea Industry in Mount Kenya region	Reject <b>H<sub>02</sub></b> if t value >1.96	t>1.96	There is a significant relationship between technology innovation strategy and performance of the tea industry in Mount Kenya region
3	To examine whether cost reduction strategy influence performance of tea industry in mount Kenya region	<b>H<sub>03</sub>:</b> Cost reduction strategy has no significant influence on performance of the tea Industry in Mount Kenya region	Reject <b>H<sub>03</sub></b> if t value >1.96	t>1.96	There is a significant relationship between cost reduction strategy and performance of the tea industry in Mount Kenya region
4	To determine whether marketing strategy influences performance of the tea industry in mount Kenya region	<b>H<sub>04</sub>:</b> Marketing strategy has no significant influence on performance of the tea Industry in Mount Kenya region.	Reject <b>H<sub>04</sub></b> if t value >1.96	t>1.96	There is a significant relationship between marketing strategy and performance of the tea industry in Mount Kenya region
5	To examine the influence of implementation strategy on performance of tea industry in mount Kenya region	<b>H<sub>05</sub>:</b> Implementation strategy n has no significant influence on performance of the tea Industry in Mount Kenya region.	Reject <b>H<sub>05</sub></b> if t value >1.96	t>1.96	There is a significant relationship between implementation strategy and performance of the tea industry in Mount Kenya region

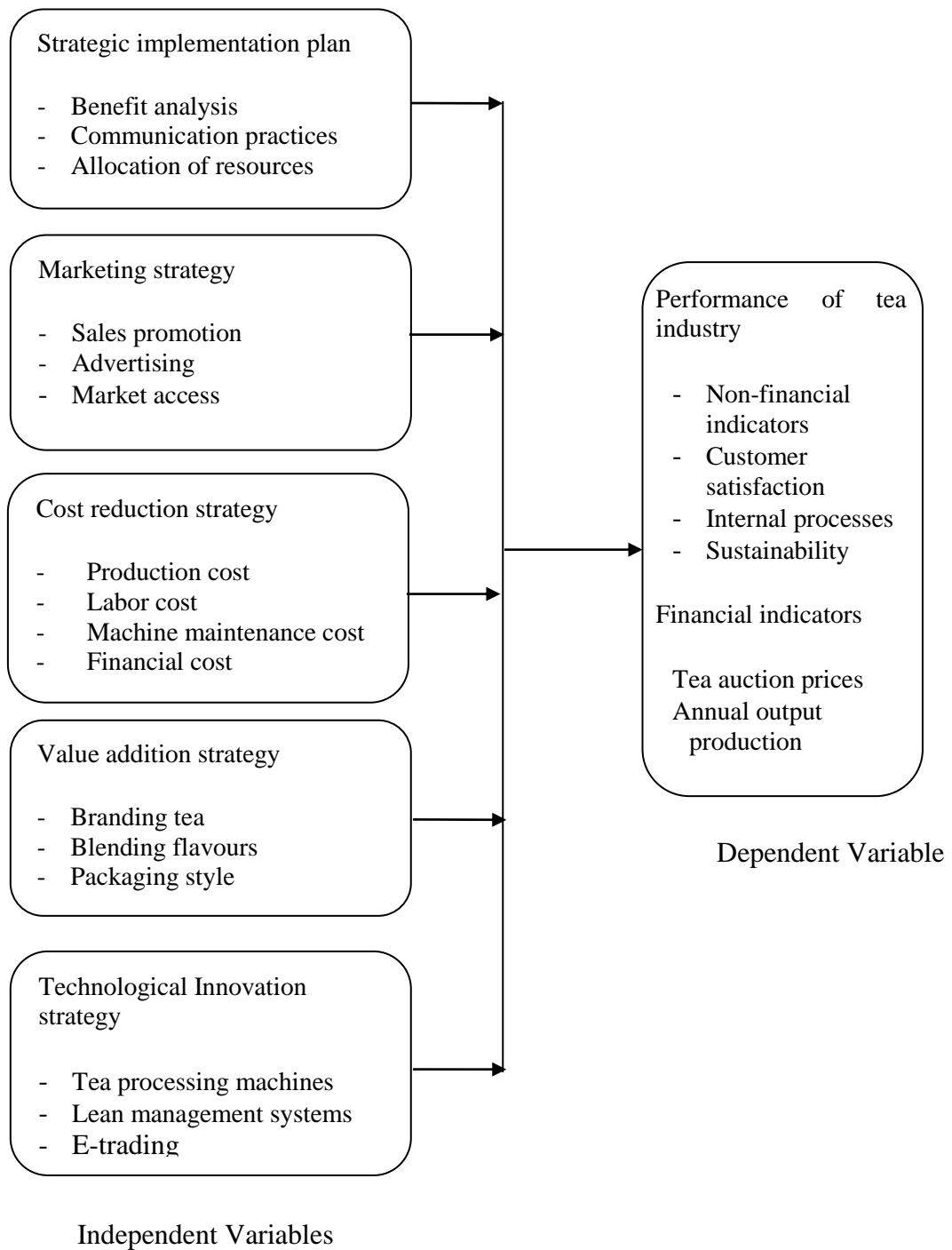
#### **4.11 Model Optimization**

Based on the results in Table 4.34 a model optimization was conducted. The aim of model optimization was to guide in derivation of the final model (revised conceptual framework) where only the significant variables are included for objectivity. Results in table 4.34 were arrived at through running multiple regressions. To obtain optimal model, the original conceptual framework was rearranged based on the influence of each of the independent variables on the dependent variable (performance of the tea industry in Mount Kenya region).

#### **4.12 Revised Conceptual Framework**

The revised conceptual framework was found by rearranging the conceptual framework based on the strength of the coefficient's values of the multiple regressions. The independent variables were also rearranged depending on their influence on the dependent variable. Results of the new conceptual framework are presented in Figure 4.7.





**Figure 4.7: Revised Conceptual Framework**

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter gives a summary of the findings in line with the specific objectives of the study, conclusions drawn and the necessary recommendations made for the study including suggested areas of further study to enrich relevant knowledge under the study.

#### **5.2 Summary of the Key Findings**

The positivism research philosophy was adopted in the study. This study used a descriptive research design and an explanatory research design. Descriptive research was used to describe the characteristics of a population or phenomenon being studied. This design was further appropriate for this study as it enabled the researcher to collect in-depth information about the population being studied. The explanatory research design was deemed suitable for the study since the research aimed at explaining the casual relationship of the variables. The target population was 117 respondents. The researcher conducted a census and thus, all the 117 respondents were included in the study.

##### **5.2.1 Value Addition Strategy**

The first objective of the study was to establish the influence of the value addition strategy on the performance of the tea industry in the Mount Kenya Region, Kenya. A positive and significant association was found from the correlation results. The study noted that 53.6% of the variations in the performance can be determined by the value addition strategy. Regression coefficients revealed a positive and significant relationship between the value addition strategy and the performance of the tea industry ( $\beta=0.987$ ,  $p=0.000$ ).

### **5.2.2 Technological Innovation Strategy**

The second objective of the study was to investigate the influence of technological innovation strategy on the performance of the tea industry in the Mount Kenya region. A positive and significant association was found from the correlation results and the R square was found to be 56.0%. The regression coefficients showed a positive and significant relationship between technology innovation strategy and the performance of the tea industry ( $\beta=0.887$ ,  $p=0.000$ ). Hence, a unitary change in technology innovation strategy leads to an increase in performance by .887 units.

### **5.2.3 Cost Reduction Strategy**

The third objective of the study was to examine whether cost reduction strategy influences the performance of the tea industry in the Mount Kenya region. The R square was found to be 67.3%. The correlation results showed a positive association between the variables. Further, the regression coefficients revealed a positive and significant relationship between cost reduction strategy and the performance of the tea industry ( $\beta=0.978$ ,  $p=0.000$ ). Hence, a unitary change in cost reduction strategy leads to an increase in the performance of the tea industry by 0.978 units.

### **5.2.4 Marketing Strategy**

The fourth objective of the study was to determine whether marketing strategy influences the performance of the tea industry in the Mount Kenya region. The R square was 64.9%. The regression coefficients showed a positive and significant relationship between marketing strategy and the performance of the tea industry ( $\beta=0.844$ ,  $p=0.000$ ). Therefore, a unitary change in marketing strategy leads to an increase in the performance of the tea industry by .844 units.

### **5.2.5 Implementation Strategy**

It was found that R square was 68.3%. The correlation results showed a positive and significant association between the variables. The regression coefficients results indicated a positive and significant relationship exists between implementation strategy and the performance of the tea industry ( $\beta=0.909$ ,  $p=0.000$ ). Thus, a unitary

change in implementation strategy leads to an increase in performance of the tea industry by .909 units.

### **5.3 Conclusion**

Based on the study's findings on correlation, it is concluded that the tea industry's value addition strategy and the performance of the tea industry in Mount Kenya is positively and significantly associated. The value addition strategy can explain 53.6% of the variations in the performance. The value addition strategy is positively and significantly related performance of the tea industry. A unitary change in value addition strategy can increase the performance of the tea industry by .987 units while others factors are held constant.

In addition, it can be concluded that technological innovation strategy and performance are positively correlated. The technological innovation strategy can explain 56.0% of the variations in the performance. A unitary change in technology innovation strategy leads to an increase in performance of the tea industry by .887 units while others factors are held constant.

The study further concludes that cost reduction strategy and performance. Cost reduction strategy can explain 67.3% of the variations in the. It is concluded that a positive and significant relationship exists between cost reduction strategy and performance. A unitary change in cost reduction strategy leads to an increase in performance by 0.978 units while others factors are held constant.

Based on the correlation results, the study concludes that the marketing strategy and performance are positively correlated. The marketing strategy can explain 64.9% of the variations in the performance. The regression coefficients showed a positive and significant relationship between marketing strategy and performance. A unitary change in marketing strategy leads to an increase in performance of the tea industry by .844 units while others factors are held constant.

Finally, it is concluded that the implementation strategy and performance are positively correlated based on the correlation results. The implementation strategy

can explain 68.3% of the variations in the performance. The regression coefficients results indicated that a positive and significant relationship exists between implementation strategy and performance. A unitary change in implementation strategy leads to an increase in performance of the tea industry by .909 units while others factors are held constant.

#### **5.4 Policy Recommendations**

Based on the results of the findings and the conclusions drawn from the study, the various recommendations for the management were made.

##### **5.4.1. Value Addition Strategy**

Tea factories should continue investing in value addition strategies in specific operational areas because they are able to control their costs much better as compared to addition of more collection centres or more field visits. Higher Tea prices will be realized through branding which increases loyalty by consumers. Better prices are attainable not by just increasing the green leaf quantity of tea picked, collected and processed. While bulk handling helps to minimize the cost per unit of service and hence better prices, the stress, fatigue, involved in mass production will compromise quality as much as it negatively affects both man and machine. Tea factories should explore more ways of maximizing their prices by better packaging and blending.

##### **5.4.2 Technology Innovation Strategy**

Tea factories should provide incentives for research and development on adoption of newest technology in the market to support cost reduction and improve quality. Professionals in the tea industry should spend more time, effort and resources towards innovations. This will mean consistent better quality which attracts higher prices for the farmers if the innovations become successful. In Kenya most small-scale farmers are still poor due to low prices of tea over the years. ICT professionals should explore ways of providing innovative solutions for coming up with better

prices which will benefit not only farmers but also the economy. This can result to motivation of farmers for better agronomical practices, stable financial base and development for the country. The Government need to offer incentives for tea industries to be able to acquire technological equipment at affordable prices. Technological innovation is aimed at improving the tea quality leading to better prices.

#### **5.4.3 Cost Reduction Strategy**

Cost reduction strategies in green leaf plucking in small scale subsector have not taken root unlike the large scale sector. Efforts however should be put to ensure technological innovation is aggressively and continuously adopted across the board in tea industry in Kenya. Tea factories should provide incentives for research and development on adoption of newest Technology in the market to support cost reduction and improve quality. This way more time will be invested and skills be directed towards this innovativeness. It is recommended that the KTDA also pursues a strategy to provide incentives intended for technology transfer from advanced economies in order to get better prices in the world market.

#### **5.4.4 Marketing Strategy**

Marketing strategy has its set of challenges especially related to low prices which can lead to farmers becoming even poorer. The main beneficiaries of better prices are farmers. Without aggressive marketing and better prices, the sustainability of tea industry would be at risk. This therefore calls for better management of marketing strategy in a manner that boosts tea prices. Factory management therefore need to create enhanced and effective marketing strategies which can enable the farmers get higher income due to better prices for their tea. This recommendation is derived from the growing threat of low prices that can make farmers become even poorer.

#### **5.4.5 Implementation Strategy**

Implementation strategy has been found to have effects on improving tea prices worldwide. It is recommended that tea industry continue to create sustainable business linkages and collaborations with worldwide market so as to get better prices for the farmers. Findings revealed that implementation strategy had a higher effect than other variables and this can be attributed to the level of penetration and ease of access of more and better strategies in the tea industry.

#### **5.5 Contribution to Theory**

The new knowledge brought is that value addition strategy, technology innovation strategy, cost reduction strategy, marketing strategy and implementation strategy can determine 84.1% variations in the performance of the tea industry in the Mount Kenya region. The results make contribution to the Theory of Value Chain Analysis. Value chain analysis is a useful tool as the firms seeks to gain competitive advantage. Value chain analysis can be employed in examining activities in value addition in the production chain to produce tea products that can withstand the dynamic competitive tea industry. The primary activities in the value chain add value directly to the product especially in the design, production, marketing and delivery to customers blends with value addition variables packaging, blending and branding.

It was also established that technology innovation strategy influences the performance of the tea industry. Technological innovation strategy attempts to automate firm processes in order to improve operational efficiency while reducing operational expenses. The results make contribution to the Technology Acceptance Model. Acceptance of technological innovation has been described as an important prerequisite strategy for organizational survival in the face of competition and globalization of business operations. Acceptance of technology among the top managers predicts the role played by technology in advancing firms competitive advantage.

The results of the study revealed that cost reduction strategy influences the performance of the tea industry. To save tea processing firms from the rising costs of

operations, the firms need to take bold step in adopting technological innovations in their business. The technological processes innovations include automated tea processing machines with the aim of reducing the operational costs.

### **5.6 Areas for Further Research**

This study did not include all strategic practises like strategy evaluation and a further study is recommended to assess the influence of strategy evaluation on the performance of tea firms in Kenya. The study relied much on primary data. Future research may attempt to combine primary data with secondary data to make the study more comprehensive.



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## APPENDICES

### Appendix I: Letter of Introduction

Dear Sir/Madam,


#### **REF: PERMISSION TO CONDUCT A RESEARCH**


I am a student at Jomo Kenyatta University of Agriculture, currently pursuing a Doctor of Philosophy Degree in Strategic Management '**Strategic Factors and Performance of Tea Industry in Kenya**'. I hereby request you to participate in this study. The information you give is entirely for the purpose of this study and not for any other purpose. All your responses will be treated with highest confidentiality. You are therefore asked not to indicate your name or any other form of identification.

Gikunju, Komu

Jomo Kenyatta University of Agriculture and Technology


**Appendix II: NACOSTI Letter**

  
**REPUBLIC OF KENYA**  
National Commission for Science, Technology and Innovation

  
**NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION**

RefNo: **473727** Date of Issue: **10/March/2022**

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### Appendix III: Questionnaire for Respondents

#### SECTION A: BACKGROUND INFORMATION

1. Name of Factory \_\_\_\_\_(Optional)

2. What is your gender?

Male ( ) Female ( )

3. For how long have you worked in this Factory?

0 – 5 years ( ) 5 - 10 years ( ) 10- 15 years ( ) 15 years and above ( )

4. What is your position in the Factory?

\_\_\_\_\_

5. What is your highest educational qualification? Please tick as

appropriate; Certificate ( ) Diploma ( ) Graduate ( )

Postgraduate ( ) other \_\_\_\_\_

6. How old is the Factory?

1 - 5years ( ) 5 - 10 years ( ) 10 -15 years ( ) 15 years and above ( )

#### SECTION B

7 Express your opinion on value addition in tea industry in your factory. Use a scale of 1-5 1-Strongly disagree 2- Disagree -3 Undecided -4 Agree 5 strongly agree

	Statement	SD	D	U	A	SA
	<b>Value addition</b>					

	<b>Branding</b>					
a	There is a symbol to identify your tea					
b	There is consumer loyalty for your tea					
c	Consumers identify with your tea					
d	Branding ensures quality					
e	Branding fetches better prices					
	<b>Blending</b>					
f	Local tea is mixed with imported for blending					
g	Blending improves quality					
h	Blending fetches better prices					
i	Blending increases market share					
	<b>Packaging</b>					
j	Your factory has unique packaging					
k	The packaging is attractive to the customer					
l	Packaging has a symbol of brand					
m	Size of packaging determines sales					

In what other ways have you done to improve value addition?

**1. a) Branding**

ii. In your opinion does branding contribute to performance in the tea industry

Yes  No

iii. If yes how do they influence performance of the tea industry?

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iv. If no how do they fail to influence performance of the tea industry?

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**b) Blending:**

i. Does blending contribute to performance in the tea industry

Yes  No

ii. If yes how do they influence performance of your organization in the tea industry?

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iii. If no why do they fail to influence performance of your organization in the tea industry?

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**c) Packaging**

i. Does packaging contribute to performance in the tea industry

Yes  No

ii. If yes how do they influence performance of the tea industry?

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iii. If no suggest how packaging can be used to influence performance of the tea industry?

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8) **Cost reduction strategies**

	<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>U</b>	<b>A</b>	<b>SA</b>
	<b>Administrative costs</b>					
a	Administrative costs have been checked					
b	Procurement is done promptly					
c	Technology has reduced administrative cost					
d	Restructuring the management has reduced costs					
f	Training has reduced management costs					
	<b>Financial costs</b>					
e	Factory is stable financially					
f	Financial resources are spent according to the budget					
f	Loan portfolio has been reduced					
h	Factory is able to services loans					
l	Loans lead to lower earnings					
j	There are adequate financial controls					
	<b>salaries</b>					

k	Staff training have reduced effects of low skills on productivity and earnings					
l	Casual workers have reduced expense on salaries					
m	Technology has reduced workforce					
n	Retrenchments have reduced expenses on salaries					
o	Salary increments are not regular					
	<b>Production cost</b>					
q	Low cost fertilizer has increased production					
r	Technology has increased production					
s	Training of farmers has improved output					
t	Maintenance have reduced cost					
q	Road infrastructure has reduced production cost					

## 2. COST REDUCTION STRATEGY

i. Does your organization have a policy on cost reduction?

Yes

No

ii. Please indicate the influence cost reduction has on performance by ticking the appropriate boxes

No extent

Small extent

Moderate extent

Large extent

Very large extent

iii. Briefly indicate the effect of the following cost and their influence on performance of your organization

i. Production cost

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ii. Labour cost

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iii. Administrative cost

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iv. Financial cost

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**TECHNOLOGICAL INNOVATION**

**a. Use of Technology**

i. Does your organization have a policy on technology and innovation?

Yes  No

ii. If yes how does it influence performance of the tea industry?

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---

iii. If no suggest how use of technology can improve performance in the tea industry?

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**b. Modern equipment**

i. Do you have a program and budget of modernizing your production equipment?

Yes  No

ii. If yes what is the comparative performance in productivity by use of the modern equipment?

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iii. If no suggest better ways to improve comparative performance in productivity by use of the modern equipment?

**c. E-trade**

i. Does your organization have a policy on e-trade?

Yes

No

ii. If yes how does it influence performance of the tea industry?

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iii. If no what needs to be done in applying technology to influence performance of the tea industry?

In this section indicate your opinion on how it applies to your factory

	<b>Statement</b>	<b>Always 5</b>	<b>Frequently 4</b>	<b>sometimes 3</b>	<b>Rarely 2</b>	<b>Never 1</b>
	Technology innovation and Performance					
a	The factory has introduced modern technology in its operations					
b	Technology has reduced cost on workforce					
c	Technology has reduced wastage in the factory					
d	Technology has improved collection of tea					
e	Technology has improved weighing of tea leaves					
f	Technology has improved tea processing					
g	Technology has to development of new tea varieties					
h	Technology has increased market accessibility					

i	Technology has improved quality of tea					
j	Technology has enhanced knowledge generation & sharing					
K	There is heavy investment in technology					
l	There are incentives for innovations					

#### 4. Marketing strategy and Performance

	Statement	strongly agree 5	agree 4	Neutral 3	Disagree 2	Strongly disagree 1
	Marketing and performance					
a	There are efforts to establish new world markets					
b	There are efforts to popularize local markets					
c	There are clear distribution channels					
d	Marketing is part of the					



	strategic goals of KTDA					
e	Marketing is part of capital expenditure in KTDA					
g	Factories carry out Market surveys					
h	There is investment in e-marketing					
i	Prices are competitive in the markets					

**3. MARKETING STRATEGY**

i. Does your organization have a policy on marketing

Yes

No

ii. If yes how do the following affect performance in your organization?

Sales promotion

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Advertising

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Market access

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iii. If no suggest best practices of sales and marketing which will improve performance in your organization?

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#### 4. Implementation strategy and performance

Indicate your opinion on implementation strategy in your factory

	<b>Statement</b>	<b>Very large extent</b> <b>5</b>	<b>Large extent</b> <b>4</b>	<b>moderate Extent</b> <b>3</b>	<b>Small extent</b> <b>2</b>	<b>No extent</b> <b>1</b>
a	Allocate resources needed to implement the strategies					
b	Evaluate organization's capabilities					
c	Review and give feedback on performance					
d	Re-structuring of the organization					
e	Adoption of an implementation plan					
f	Defining and implementing strategies					
g	Define and review vision, mission and values					

h	Mobilization of change by the executive leadership					
i	Coordination across functional boundaries					
j	Control of resource utilization					
k	Coordination across departments					
l	Establish annual objectives					
m	Provide incentives for employees to carry out the strategies effectively					
n	Communication on strategic expectations to all					

**IMPLEMENTATION STRATEGY**

i. Does your organization have a strategic plan?

Yes

No

ii. If yes how do the following influence performance in your organization

Acquisition of resources

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Allocation of resources

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Control

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Motivation

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iii. If no what should be included in the strategic plan to influence performance in your organization

Motivation

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## 5. Performance

**Table performance of tea industry**

	<b>Strongly disagreed</b>	<b>disagreed</b>	<b>Not sure</b>	<b>agreed</b>	<b>Strongly agreed</b>
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	1	2	3	4	5
Value addition in terms of packaging influence tea prices					
Does cost reduction affect performance in tea industry					
Does Technology adoption and innovation affect performance in tea industry					
Does E-marketing influence performance in tea industry					
Implementation strategizing influence performance in tea industry					

**Secondary Data collection template for performance**

Year	Tea Auction Price
2011	
2012	

2013	
2014	
2015	
2016	
2017	
2018	
2019	

#### **Appendix IV: Focus Group Interview**

1. What percentage points of your Factory's total production goes to value addition?
2. Is the comparative difference of bulk sales price and that of Value addition product significant?
3. Would the management consider formulating a policy of increasing volumes of value addition products to the market?
4. Can your organization operations be enhanced by use of Technology?
5. Have you adopted technology and innovation in your production?
6. Would you suggest better elaborate technological methods to fill the gaps?
7. Does your organization have a policy on increasing local consumption by creating more drinkers?
8. Explain what your organization is doing to avoid over reliance on traditional markets.
9. Has your organization considered using technology in marketing for example social media or e -marketing?
10. What is the proportion of cost of inputs in the overall performance of earnings?
11. What measures are you taking to reduce operational costs without compromising on quality?
12. Is productivity a critical component on cost reduction in your organization?
13. Does the management have the skills and capability for monitoring and evaluation of implementation strategy?
14. How regularly does the management meet for monitoring and evaluation of implementation strategy?
15. In your own opinion, explain effectiveness of the process of acquisition and allocation of physical and human resources in your organization.





## **Appendix V: List of Tea Processing Firms**

1. Ndimba
2. Kangaita
3. Mununga
4. Githongo
5. Igembe
6. Imenti
7. Kathangariri
8. Kiegoi
9. Kimunye
10. Kinoro
11. Kionyo
12. Michimikuru
13. Mungania
14. Rukuriri
15. Thumaita
16. Weru

**Source: KTDA, 2019**