Determinants of export performance of Kenya tea development agency managed factories in Kenya

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DECLARATION

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

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DEDICATION

To my wife Victoria, sons Elvis Magare, Ryan Mochorwa and daughter Elsie Nyaboke.

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ACRONYMS AND ABBREVIATIONS

BCG   Boston Consulting Group

CFU   Continuous Fermentation Unit

CGE   Computable General Equilibrium

CTC   Cut, Tear and Curl

EATTA   East African Tea Trade Association

EPC   Export Promotion Council

FA   Factory Accountant

FSC   Field Services Coordinator

FUM   Factory Unit Manager

GDP   Gross Domestic Product

IBS   International Business Studies

ITC   International Tea Committee

KEPHIS   Kenya Plant Health and Inspectorate Services

KTDA   Kenya Tea Development Agency

OLI   Ownership, Location & Internationalization

PM   Production Manager

PPE   Personal Protective Equipment

RBV   Resource Based View

TBK   Tea Board of Kenya

UK   United Kingdom

UNCTAD   United Nations Conference on Trade and Development

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ABSTRACT

Tea production is the mainstay of millions of people worldwide, majority of them found in the poorest countries of the world. The contribution of the tea sector to the economy of Kenya is enormous as it accounts for 4% of the GDP and indirectly supports 10% of Kenya's population. Export performance defines the extent to which small scale tea farmers earn their living. The main focus of the study was to find out the determinants of tea export performance in Kenya. About ten 10% of the population in Kenya depends on tea production (Tea Board of Kenya, 2012). The main objective of this study was to establish the determinants of export performance of KTDA managed factories in Kenya. The main variables considered were marketing strategy, firm size, liberalization and technology and how they affect performance. Export performance in the tea industry is affected by massive over production, collapsing prices, deteriorating quality, poor marketing strategy, lack of value addition and the growing inequality along the tea value-chain. The study employed descriptive research and adopted random sampling technique. The actual number of respondents targeted was 84 but 76 were interviewed as the study sampled 21 tea factories out of 65. The four senior managers, FUM, PM, FA and FSC were interviewed. The response rate was 90.5 as 76 questionnaires were successfully filled and analyzed. The respondents were drawn from the target population of 65 tea factories managed by KTDA Ltd which are found on both the East and West of the Great Rift Valley. These are the regions known for tea growing and are divided administratively into 12 zones and seven regions. Primary data was collected using closed and open ended questions and some were on a likert scale. Data analysis was done using a number of tests including Pearson Correlation Coefficient, multiple regression and Analysis of Variance (ANOVA). The study found out that marketing strategy, firm size, liberalization and technology are critical determinants of export performance of KTDA managed factories in Kenya. Government policy which was the moderating variable was found to have a negative effect on Tea export performance in Kenya.

CHAPTER ONE

INTRODUCTION

1.1   Background of the Study

This chapter presents the background of the study, the statement of the problem, research objectives and hypotheses of the research. The chapter also highlights the justification of the study, the scope and limitations of the study as finally this chapter defines key terms as used in this study.

Tea production is the mainstay of millions of people worldwide with the majority of them in developing countries. Therefore, addressing the issue of equitable trading from lessons learnt in the past and considering the present and the future situations, throws a big challenge to all of us. For example, Kenya which is one of the leading tea producing countries in the world has 90% of its population living in the rural areas. Some of the identified challenges facing the tea industry by massive over production, collapsing international prices, deteriorating tea quality, disease and the growing inequality in the tea value-chain (United Nations Conference on Trade and Development, 2002).

A decade ago, developing countries captured 30 % of the value of the tea market compared to only 10% of what they capture today. For instance, tea sector in Kenya, contributed on average 60% of the foreign exchange earnings and did so until the year 2002 when its contribution fell to a mere 25% (Tea Board of Kenya, 2012). This rapid fall, brought about social and economic imbalances in more than 3,000,000 smallholder Kenyan tea farmers affecting their daily livelihoods. For many of these tea farmers, tea meant not only money in their pockets but it also translated into ability to afford education, health care, food security and improved household standards of living. While

measures have been taken to improve the sector, still there are challenges that have hindered the performance of this important sector in the Kenyan economy.

Globally the trend has been the same and this calls for concerted efforts by the tea industry players to seek for long term sustainable solutions to the problems that are making tea trade inequitable. The current challenges have brought the economic situation of tea producers to the forefront of media and policy discussions. Since the 1980s, oversupply of tea in international markets has resulted in nearly a 50% decline in nominal tea prices (International Tea Committee, 2012). This calls for research to understand the underlying factors affecting export performance of the tea sector.

According to the United Nations Conference on Trade and Development (UNCTAD) secretariat, between 1999 and 2002, producing countries earned US$19 billion less in revenues than compared to the 1998 levels. For the small scale tea farmers that account for approximately 60% of tea production (TBK, 2012) and declining prices have a direct impact on overall household revenues and access to basic needs. Declining prices are also associated with declining job quality and security for employees serving in the tea industry, many of whom represent the poorest section of the population serving the tea supply chain. Although prices on the world market are one of the most important determinants of economic sustainability in the tea sector at present, they form part of a larger web of economic constraints generally facing tea producers.

Tea, like most agricultural crops, is seasonal and therefore varies in production at different times of the year. For instance, it experiences high production between September and December (KTDA, 2012) during long rains requiring investments prior to harvest and revenue returns. Small scale farmers with a low capital and savings base often rely on advances and credit to supply requisite pre-harvest inputs and living expenses in many tea-producing communities, local tea buyers fill the credit gap

through advance purchases at highly-discounted rates (KTDA, 2012). Although local buyers fulfill an important role through such credit provisions, poor infrastructure development and anti-competitive practices regularly result in a net transfer of value down the supply chain, placing greater financial pressures on producers.

Requirements associated with selling tea in the international markets also present significant barriers for higher revenues to smaller producers. For example, export license, minimum volume and quality requirements can operate as bottlenecks that effectively reduce the ability of producers to reap the benefits of the international trading system. Meanwhile, tariffs on processed forms of tea in importing countries can also have an effect on the revenue captured by producer countries from the supply chain. The imposition of such tariffs effectively restricts producing countries access to the higher value added associated with processing activities. The elimination of economic clauses from International Tea Agreements since 1989 has reduced the effectiveness of international cooperation for stabilizing prices. Increased activity by large funds in commodity future markets over the past two decades has led to a weakening of the connection between price determination and market fundamentals.

The breadth and intimacy of the relationship between tea producers and a host of intermediary institutions along the tea supply chain makes the sector to be of critical importance to sustainable development at the local, regional and global levels. Although "sustainability" has been defined in a variety of ways over the past several decades, has provided the most widely-accepted and enduring definition at the International level. According to the report "Sustainable development is development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs". It contains within it two concepts: the concept of 'needs,' in particular the essential need of the world's poor, to which overriding priority should be given and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

Despite the fact that tea plays an important role in the economic development of Kenya, there has been an increasing decline in quality of tea production (Tea Board of Kenya, 2012). To worsen the matter further, some tea farmers have of late uprooted their crops while others engage in tea hawking that has been condemned by the Tea Board of Kenya. Small-holder tea cultivation in Kenya commenced in the 1950s. Hitherto, Africans were not allowed to grow tea. This scenario however, changed in 1957 when the first small-holder factory was set up at Ragati in Nyeri. In 1960, the Special Crops Development Authority (SCDA) was established to oversee this crucial sector. This was replaced by Kenya Tea Development Authority (KTDA) in 1964 that was established under the Agriculture Act (Cap 318) Section 91 (Legal Notice No. 42). KTDA took over small-holder management on behalf of government and was privatized by transferring its management to tea farmers.

The process of privatization was started in 1991 when the Parastatal Reform Strategy Paper listed KTDA among strategic parastatals to be privatized. In 1999, the KTDA order was revoked through legal Notice No. 44 and in June 15th 2000, KTDA was transformed into a private company, the KTDA (Agency) and registered under the companies act. There were 45 small-holder tea factories at the time of privatization in 2000. These have since grown to 65 tea factories as at 2012 (KTDA, 2012). The major changes to the policy framework for liberalizing the tea industry were published in Sessional Paper No. 2 of 1999, debated in parliament and gazetted as Tea (Amendment) Act, that focused on strengthening Tea Board of Kenya (TBK) to control and regulate the industry and restructuring and privatization of KTDA to give farmers more say in tea collection, processing and marketing through their factories. The factories were to choose tea brokers on their own and were at liberty to change them.

KTDA managed factories. It accounts for 60% of Kenya's total tea production and about 6% of global tea production. Currently there are 65 tea-manufacturing factories in

Kenya under the KTDA Ltd Management. Each factory has a processing capacity of about 3 million Kg of made tea per year with a total output capacity of about 220 million Kg of made tea per annum. KTDA mainly manufactures Black C.T.C. (Cut, Tear and Curl) teas. The primary grades produced are Broken Pekoe 1 (BP1), Pekoe Fanning 1 (PF1), Pekoe Dust (PD) and Dust 1 (D1) while the secondary grades are Fanning 1 (F1), Dust (D) and Broken Mixed Fanning (BMF). Kenya Tea Development Agency Limited was incorporated on 15th June 2000 as a private company under (Cap 486) of Laws of Kenya becoming one of the largest private tea management Agency globally.

1.2 Statement of the Problem

International tea business is lucrative and competitive. This is supported by major international brands including Lipton, Twinings and Taylors of Harrogate of United Kingdom whose business acumen is grounded on innovation, branding and marketing. However, KTDA's presence in the global tea market is through the production and export of quality teas which is mainly used in blending (International Tea Committee, 2012 & Tea Board of Kenya, 2012). Marketing of Kenyan tea is coordinated by TBK but its impact has not been felt especially in opening up of new and emerging markets as there is reliance on traditional markets including Egypt, United Kingdom, Pakistan, Afghanistan and Sudan (Tea Board Kenya, 2012). This brings into focus export performance of KTDA teas.

Despite the significant role played by the tea industry in Kenya's economic development including; employment creation, income generation, foreign exchange earner and the fact that Kenya has been high quality tea producer in the world, there has been an observed decline in tea income due to low profit margin in world market. Further, there has been decline in Kenya's tea price in the international market (TBK, 2012). This phenomena has led to some farmers uprooting tea and replacing it with

alternative land usages while others resorted toselling their teas to multinational companies.

International prices for bulk teas are low compared to value added teas (International Tea Committee, 2012). Recent global production is over 4.2 billion kgs of made tea while consumption is about 4.1 billion kgs meaning that production outweighs consumption globally (International Tea Committee, 2012; Tea Board of Kenya, 2012). Tea farming, especially by small-holder farming has become economically unsustainable. This therefore threatens the social fabric of communities that rely heavily on tea cultivation for their livelihoods leading to several challenges to producers such as non-compliance to environmental regulatory bodies, health hazards to workers and litigation.

The oversupply of tea witnessed since the 1980s has led to the reduction of world tea prices by over 50% thus putting the producers in disarray (International Tea Committee, 2012). Tea producers were unable to support tea enterprise and this led to negative impacts on the quality of tea in Kenya. It is against this backdrop that the proposed study intends to establish the determinants of export performance of KTDA managed factories in Kenya so that this aids policy formulation to stop further decline of revenue to smallholder farmers. Prices of tea have for a very long time remained volatile and price swings is prevalent in Kenya's tea industry as a result of the restricted operations of the Auction System. The independent variables for the study are market strategy, firm size, liberalization and technology which are discussed throughout the study and their effects on export performance.

Some research that has been done on this area has exposed gaps that will be addressed by this study given that they have failed to explain the extent to which firm size affects export performance (Calof, 1994) while others have ignored the impact of liberalization and technology on export performance (Lages&Montegomery, 2004). Besides,

production efficiency has been ignored as a likely determinant of export performance at the expense of finance, strategy and satisfaction. In this study production has been considered through the variable of technology while marketing strategy is considered to determine export performance. This study therefore, sought to answer the question; what are the determinants of export performance of KTDA managed factories in Kenya?

1.3   Research Objectives

General Objective

The study aimed at establishing the determinants of export performance of KTDA managed factories in Kenya

Specific Objectives

The specific objectives of the study were:

1. To examine the effect of marketing strategy on export performance of KTDA managed factories in Kenya.
2. To determine the effect of firm size on export performance of KTDA managed factories in Kenya.
3. To assess the effect of liberalization on export performance of KTDA managed factories in Kenya.
4. To determine the effect of technology on export performance of KTDA managed factories in Kenya.
5. To establish the moderating effect of government policy on the determinants of export performance of KTDA managed factories in Kenya.

1.4 Hypotheses of the study

The study was guided by the following hypotheses derived from the study objectives;

H_1. There is no significant relationship between marketing strategy and export performance of KTDA managed factories in Kenya.

H_2. There is no significant relationship between firm size and export performance of KTDA managed factories in Kenya.

H_3. There is no significant relationship between liberalization and export performance of KTDA managed factories in Kenya.

H_4. There is no significant relationship between technology and export performance of KTDA managed factories in Kenya.

H_5. There is no significant moderating influence between government policy and determinants of export performance of KTDA managed factories in Kenya.

1.5   Justification of the Study

The results from the study will be beneficial across several spectrums The study findings exposed the factors affecting small-scale tea production in Kenya thus helping the country to realize how these challenges can be minimized to improve the tea sub sector. This is significant in providing greater insight into the production, financing resource factors and marketing that contribute towards declining tea production among small scale tea farmers in Kenya.

The study is of interest to researchers and other scholars as it will inform the formulation of theories of international business by incorporating such factor as marketing strategy, firm size, liberalization and technology. The research will also fill the gaps in the studies previously carried out by other researchers regarding the declining tea production in Kenya and also enable other researchers to carry out the study beyond this scope. To the researcher, it will give a better understanding of the issues under investigation and also sharpen research skills.

The government's blueprint of vision 2030 aims at transforming Kenya into a globally competitive, prosperous and middle income economy has identified international trade sector as a key economic sector to drive vision 2030. The development of the export sector is an essential necessity for job creation, economic empowerment and poverty reduction. The findings of this study therefore will inform government in its policy formulation regarding the tea sector in order to accord it a competitive position in the global arena. This will apply to other policy makers as it will inform the pace and direction for further liberalization in the agriculture sector as well as other sectors that are of strategic importance to the government. The tea industry players will be keen to evaluate the full impact of liberalization of the small scale tea sector with a view to finding ways of bridging any weaknesses and negative impact that may arise. The positive impact will be maximized for the benefit of the tea farmers.

Planners and marketers will benefit by adopting an export framework based on the research findings considering for instance that majority of the products including tea are either sold in raw or semi-processed form thus fetching low prices in the international market, compared to the high-value finished products imported into the country. The value of Kenya's imports remains higher than that of exports implying unfavourable balance of trade. There is therefore need to develop the export economy if the country is to bridge this gap. This study will assist in establishing close collaboration with key stakeholders to create synergy that will support the growth of the Kenyan economy by consolidating, diversifying and expanding the target markets for Kenya's Tea export.

The findings and recommendations from the study will assist producers of exportable goods and services in overcoming bottlenecks to enable them achieve a higher level of export performance. This will be possible through the development of the export framework that incorporates liberalization policy. This study will also help in the development of a generic export conceptual framework that will be adopted by other agricultural products. The study findings will be a platform through which Kenya would increase her foreign earnings resulting in enhanced economic growth if we are to manage well the determinants of the tea export performance in Kenya

1.6   Scope of the Study

The study looked at the small scale tea sector that is managed by KTDA Ltd. KTDA currently manages 65 factories and over 562,000 farmers majority of them having about 0.5acres under tea. The factories are administratively grouped into 12 tea zones each represented by a board member who sits at the KTDA Board, the apex decision making body for the small scale tea sector in Kenya. At the management level, the 12 tea zones have been grouped into seven regions each managed by a Regional Manager assisted by a Regional Operations Manager.

This study sought to find out the determinants of export performance and to achieve this it targeted the tea factories and the respondents were the top management of the 65 tea

factories that are managed by KTDA Ltd. The unit of study was the factory. To achieve this, the study in particular sought information from the Factory Unit Manager (FUM), Production Manager (PM) the Factory Accountant (FA) and Field Services Coordinator (FSC).

1.7   Limitations of the Study

Full disclosure of information from various tea factory companies was a challenge. Information on profitability, production efficiency and procurement procedures were found to be sensitive because of their confidential nature. This was however minimized by assuring the firms that the final report will not disclose the names of the respondents.

1.8   Operational definition of terms

Bulk-Tea; The sale of tea in its purest form, with no additional value added. Such tea is purchased at auction centres and transported elsewhere to be blended into a final product before re-selling to consumers (Kelegama, 2010).

Economic Liberalization; Refers to the freedom to engage in economic activity anywhere and the freedom is subject to institutional and policy constraints needed to guarantee public interests at large (Ognivtsev, 2005).

Export Performance;Thisrefers to the outcomes of a firm's export activities (Calantone, 2005).

Internationalization; This is an outward movement of a firm's operations from local markets to aInternational Market (Turnbull, 1985).

Organization structure: The way responsibilities and power is allocated inside an organization and the work procedures by employees and members of a given organization (Gerwin&Kolodyny, 1992)

Privatization: The transfer of business undertakings from state control to the private sector. It is the extent of state ownership and the balance between commercial and social interest (Mullins, 2010).

Tea; Act, 1950 means the plant camellia sinensis as well as all varieties of the product known commercially as tea made from the leaves of the plant camellia sinensis including green tea.(Tea Act 1950)

Value Addition; It refers to the process by which value is added to a raw material so that the good is closer to or is a finished product before entering the market. With regard to value-added tea, manufacturers may add value by blending and packaging the tea before selling it to consumers (Kelegama, 2010).

CHAPTER TWO

LITERATURE REVIEW

2.1   Introduction

This chapter highlights the theoretical and as empirical literature relevant to the topic of the study. These include the theoretical framework, conceptual framework and the theories and modes of international business that support export performance. These theories are   product life cycle theory, the Uppsala model, Driscoll's model, dunning's Eclectic model, Capital account Liberalization and Neoclassical growth model, critical theory of technology, Resource based view model and Agency theory.   The has discussed the various independent variables including marketing strategy, firm size, liberalization and technology and how they determine   export performance. The research gaps of the study are also discussed in this chapter.

2.2   Theoretical Framework

This study was guided by three theories and five models upon which anchorage of the study and its foundations were based.

2.2.1. Product Life Cycle Theory

This theory on international trade was developed by Raymond Vernon in the 1960s. The theory has five stages namely, introduction, growth, maturity, saturation and decline. Companies are forced to introduce their products in many different markets at the same time to gain cost benefits before its sales decline.

The product life cycle theory asserts that marketing strategies must evolve along with a product from inception through obsolescence. At introduction it involves tailor marketing mix to spark interest and educate potential customers. At growth phase, efforts shifts to secure a wider audience by building brand loyalty, a stable supply chain and additional distribution channels as defenses against competition enter the market.

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Maturity stage witnesses weaker players driven out and there is little differentiation among competitors. This leads to marketsaturation leading to eventual decline of the product's market share. Marketing at this stage shifts to incentives, advertising, in-store promotions and volume discounts. This theory supports the objective on marketing strategy and its impact on export performance of Kenya Tea Development Agency managed factories in Kenya.

2.2.2. The Uppsala Model

Johanson and Wieldersheim (1975) introduced the internationalization model referred to as Uppsala model. The model was based on the assumption that internationalization is the consequence of a series of incremental decisions and the most important obstacles to internationalization are lack of knowledge and resource. The model identified four sequential stages of the internationalization process. They are regular export activities, export via independent representation (agent), sales subsidiary; and production/manufacturing

This model was later modified by suggesting a dynamic international model that was referred to as the basic mechanism of internationalization (Johanson1977; Vahlne,1990). The dynamic model assumes that the market knowledge and market commitment affect both commitment decisions that influence market knowledge and market commitment. This model has direct relevance as it informs the choice of market strategy and firm size.

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┌─────────────────┐
│ Market          │
│                 │                              ┌─────────────────┐
│  Knowledge      │──────────────────────▷       │ Commitment      │
│                 │                              │                 │
│                 │                              │  Decisions      │
└─────────────────┘                              │                 │
                                                 └─────────────────┘


┌─────────────────┐                              ┌─────────────────┐
│ Market          │                              │ Current         │
│                 │                              │                 │
│ Commitment      │      ◁──────────────────     │  Activities     │
│                 │                              │                 │
│                 │                              │                 │
└─────────────────┘                              └─────────────────┘
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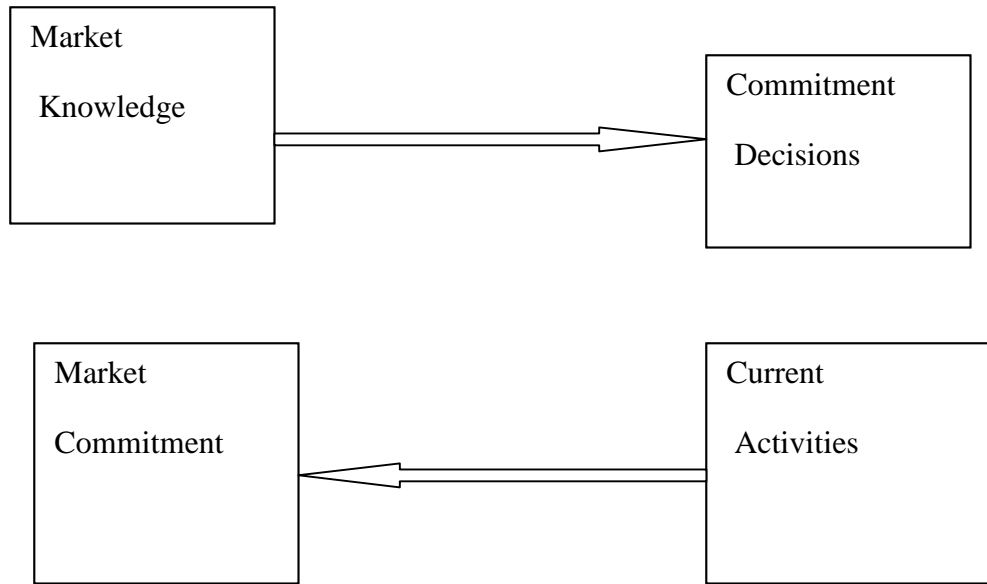
Figure 2.2: The Uppsala Model; Source: Johanson and Vahlne (1990)

This revision of the Uppsala model however emphasizes that internationalization is a process and follows a stage approach. The Uppsala Model is not without criticism as some scholars have taken a contrary view (Turnbull, 1987; Andersen, 1993; Bell, 1995; Gurau, 2002). These criticisms led to the Uppsala model revised, partly to accommodate the criticisms leveled. The revised model is as shown in Figure 2.3.

State		Change
Knowledge **Opportunities**	⟹	**Relationship** **Commitment** **Decisions**
Network **Position**	⟸	**Learning,** **Creating, Trust -** **Building**
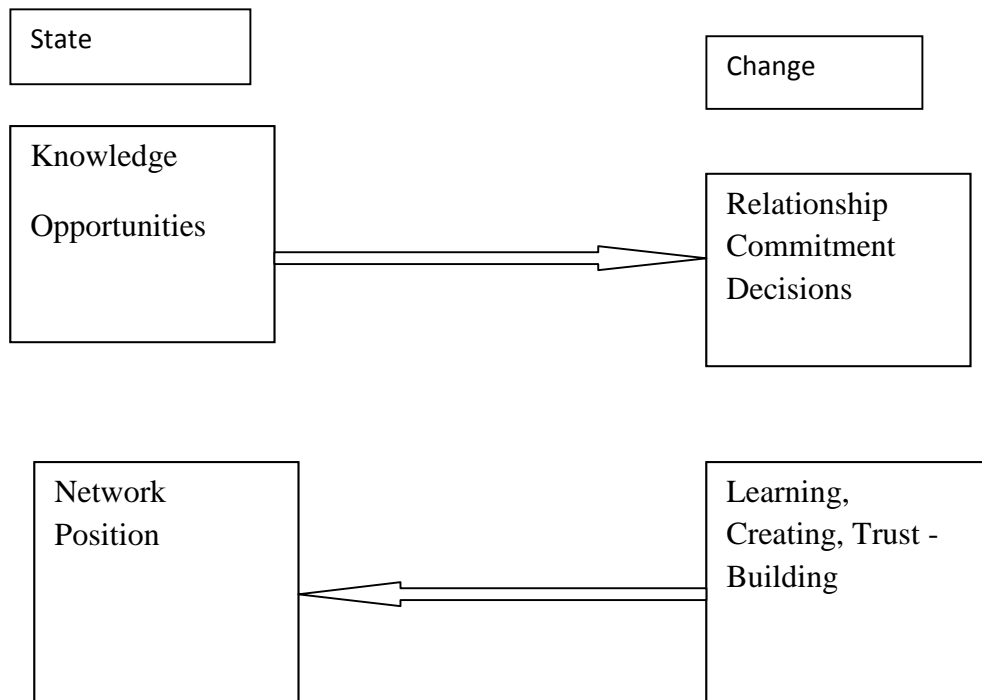
Figure 2.3: The Revised Uppsala Model; Source: The business Network Internationalization process (the 2009 Version)

The Uppsala Model gives rise to a simple export model but in reality export is not a stage-wise process. In the tea sector, export of tea takes place through a multifaceted approach without necessarily being sequential. Export performance of the tea sector is improved through a number of channels including direct sales, Mombasa auction and through establishment of subsidiaries as the case of Kenya Tea Development Agency Ltd which has subsidiaries that handle both local and international markets.

The export performance of firms in the tea sector largely depends on the long standing relationship with customers over a period spanning in some cases 30 years and beyond (KTDA, 2012). It is also based on trust which is one of the building blocks of international business and these two have been captured in the Uppsala Model.

The model has however, not captured the role of Joint Venture which is one form of international business through which firms in the tea sector increases export performance. The process did give rise to research in the area of international business.

2.2.3. Driscoll's Model

Driscoll'smodel has specific contribution to a range of variables including government policy and liberalization. The model introduces a comprehensive foreign market entry decision framework which identifies export, contractual and investment as the main foreign market entry modes (Driscoll, 1995). The contractual entry modes include a variety of arrangements such as a licensing, franchising, management, contracts, turnkey contracts, non-equity joint ventures, and technical knowhow or co-operation arrangements. The investment entry mode includes acquisitions, joint venture and start up investment.

Driscoll also analyzes the characteristics of export contractual and investment entry modes from five aspects namely control, dissemination risk, resource commitment, flexibility and ownership (Table 2.1). Driscoll (1995) has been able to show in tabular form, the characteristics of the foreign entry modes, factors that influence entry mode choice and entry mode choice framework. These export characteristics when studied individually have a bearing on export performance of firms.

Table 2.1: The Characteristics of Driscoll's Foreign Entry Mode

Entry Method	Control	Dissemination Risk	Resource Commitment	Flexibility	Ownership
Investments	High	Low	High	Low	High
Contract	Medium	Med-high	Med-high	Medium	Med-

| s | | | | | high |
| Exports | Low | Low | Low | High | Low |

Source: Driscoll (1995)

Driscoll made a major contribution in international business by coming up with different modes of market entry. Export mode has high flexibility that in effect appeals to the exporters to utilize as it also requires low resource investments. Besides, control, dissemination and ownership are low and these advantages are critical for startup firms that plan to engage in international export business

Table 2.2: The Factors that Influence Driscoll's Entry Mode Choice

Situational Influences	**Firm factor**	Firm specific advantages
		Experiences
		Strategicconsiderations
	Environment Factors	Demand and competitive conditions
		Political and economic conditions
		Socio – culturalconditions
Moderating Variables	Government policies and regulations	
	Corporate policies	
	Firm size	

Source: Driscoll (1995)

Criticism of the Driscoll's Model

In the current business environment where international business is regulated by World Trade Organization, the fact that there is low control and ownership in the export mode of market entry, means that it should spur export performance because fraud is minimized as a result of the business climate that has improved over time. Driscoll has

also clearly shown that firms entering export business must be aware of environmental factors like political and economic conditions. These could encourage or discourage international business. For instance, political instability does not favour international business while some social cultural factors can affect advertising business in certain markets.

2.2.4. Dunning's Eclectic Model

John Dunning's Eclectic Model was introduced in 1976 and and has since then been refined and become a key contributor to the separation of international business studies (IBS) from international economies and trade theory and development of global strategy. Dunning's Eclectic model by its inclusive nature opened up the study of multinational firms to broader influences from organizational studies and business strategy. It is therefore a key to national differences and case- based analysis of industry effects into theoretically grounded studies of business organizations functioning in extra-national markets.

While Dunning himself makes the point that eclectic model is aimed at the study of multinational firms not at evaluating individual firm decisions, it does provide a framework for both descriptive and normative studies of individual firms. Dunning's Eclectic theory of FDI has three components, which are ownership, location and internationalization advantage. It is simply referred to as OLI model. Firstly, there is the ownership advantage whereby the foreign firm must own some unique competitive advantage that overcome disadvantages of competing with the local firms on their home turfs. Secondly, there is a location advantage where undertaking the business activity must be more profitable in a foreign location than undertaking it in a domestic location and thirdly is the internalization advantage in which the firm must benefit more from controlling the foreign business activity than from hiring an independent local company to provide the service. This model supports the objective of the firm and export performance.

Criticism of the Model

The model did give a framework upon which individual firms could be studied. The advantage that a firm enjoys especially the location advantage is applicable to the tea industry in that Kenya exports 95% (TBK, 2012) of her total tea production to the international market. The foreign location is more profitable than the domestic location. The ownership advantage on the other hand partly applies in that Kenyan firms are known to produce high quality teas that can withstand international competition. KTDA has established subsidiaries and an office in Dubai to coordinate value addition and manage Middle East business given its advantageous location.

There are very few of local firms controlling business in foreign markets because there are established firms for instance in the United Kingdom (UK) where Unilever, Twinnings and Taylors of Harrogate among others are well established tea companies that buy tea from Kenya. Nevertheless, this model did encourage local companies like KTDA to start engaging in international business through exports. KTDA had to get markets for her tea products.

2.2.5. Capital Account Liberalization and Neoclassical Growth Model

The two models that are associated with Capital Account Liberalization and Neoclassical Growth Model are the Cobb-Douglas Production Function and the Computable General Equilibrium (CGE). In particular the CGE are simulations that combine the abstract general equilibrium structure formalized by Arrow and Debreu (Geanakoplos, 2004). CGE models are a standard tool of empirical analysis and are widely used to analyze the aggregate welfare and distributional impacts of policies whose effects may be transmitted through multiple markets or contain menus of different tax, subsidy, quota or transfer instruments (Suewing, 2004).

The CGE is one of the most rigorous cutting edge quantitative methods to evaluate the impact of economic and policy shocks, particularly policy shocks in the economy as a whole. CGE analysis captures a range of economic impacts derived from implementation of a specific policy reforms. CGE models are the best choice if the economic or policy shock to be evaluated is expected to have significant impact throughout the economy. This model supports the objective of liberalization and its effect on export performance of KTDA managed factories.

2.2.6. Critical Theory of Technology

The Critical theory of technology (Feenberg, 2002) argues that the real issue is not technology or progress per se but the variety of possible technologies and paths of progress among which we must choose. Technology therefore is characterized with arguments about the "trade-offs" between efficiency and substantive goals such as participation or environmental compatibility (Feenberg, 2010).

This theory argues that the liberation of humanity and the liberation nature are connected in the idea of a radical reconstruction of the technological base of modern societies. This Theory supports the objective of technology and export performance.

Criticisms of the theory

The theory has recognized the importance of variety of technologies in a system and for the case of KTDA; this is witnessed in its manufacturing where systems are automated such as Continuous fermentation unit (CFU) and the drying unit. The theory, however is pre-occupied by trade-offs between efficiency and substantive goals of the environment.

2.2.7. Resource Based View Model

Resource Based View (RBV) pays attention to the internal resources that a firm possesses. Considerable emphasis has been given to a firm's competitive environment and its competitive position (Das &Teng, 2000). The RBV suggests that the resources

possessed by a firm are the primary determinants of its performance and these may contribute to a sustainable competitive advantage of a firm (Hoffer &Schendel, 1978; Wenerfelt, 1984).

The Resource Based view was relevant to the study as it focuses directly on market strategy and firm size both of which constitute independent variables of the research. The main emphasis of the model is strategy, internal resources, internal management structures, processes and procedures, all of which are among the sub variables to be measured.

According to Barney (1991), the concept of resources include; all assets, capabilities, organizational processes, firm attributes, information and knowledge among others controlled by a firm that enable it to conceive and implement strategies that improve its efficiency and effectiveness (Barney, 1991; Draft, 1983). Dierickx and Cool (1989a) describe how the sustainability of a firm's asset position hinges on how easily its resources can be substituted or imitated and imitability is linked to the characteristics of the asset accumulation process; for example time compression diseconomies, asset mass efficiencies, inter-connectedness, asset erosion and casual ambiguity. Barney (1991) highlighted four conditions under which a firm produces competitive advantage. They include resources must be valuable, resources must be rare, resources must be immitable and finally resources must be non-substitutable (VRIN). This model supports the objective of technology and export performance.

Criticisms on the Model

If firms want to realize their competitive advantage or maximize their profit from the resources they possess, they have to take into account the demand side characteristics that influence on the final price of their output. The values of resources are determined by demand side characteristics and these are also exogenous to the RBV model (Priem& Butler, 2001a,b).

It is however noted that a strong balance sheet of KTDA has enabled it to bargain for higher investment rates with banks than competitors. Equally, it is able to bargain for higher exchange and interest rates for her export proceeds. This is achieved through floating of quotations of dollar proceeds it receives from tea buyers.

2.2.8. Agency Theory

The agency theory is a concept that originated from the works of Adolf Augustus Berle and Gardiner Coit Means in 1932 when they explored its application towards the development of large corporations. The theory explains the relationship between two parties namely the principal and the agent. The principal (owner) delegates work to the agent (worker). The two parties have different roles and goals.

In the 1960s and 70s, Michael C. Jensen and William Meckling shaped the works of Berle and Means when they argued that corporations are structured to minimize the costs of getting agents to follow the direction and interests of the principals.

Agency theory uses the rule of delegation in which case the principal delegates duties to the agent. Delegation is beneficial because it overcomes personal limitations given each one of us has limited time, energy and talent (Lupia, 2001). The structure of an organization is an example of delegation as each staff is given tasks to perform in the organization.

Organization structure is the way responsibility and power is allocated inside an organization and the work procedures by employees and members of a given organization. The basic elements of organizational structure are hierarchy, authority, division of labour and procedure. Organizational structure divides tasks and ensures coordination, it trades off, specialization and integration and provides basis for either centralization or decentralization (Isoe et al 2013). This Theory best explains the organogram of KTDA and the same is cascaded to the tea factories that it manages. This supports the objective of the moderating effect of Government policy and export performance.

2.3   Conceptual Framework

The conceptual framework for this study incorporates both the independent and dependent variables. The independent variables are; marketing strategy, firm size, liberalization and technology while export performance is the dependent variable. The framework shows how these variables affect export performance of KTDA managed factories in Kenya.   Figure 2.4 shows the interrelationship between the factors influencing export performance.

The conceptual framework is a symbolic representation of the interrelations exhibited by a phenomenon within a system or a process (Cresswell, 2003). It is presented in a way to allow predictions to be made. William (2001) observes that a model is a concept that represents how things work together and are used to explain how theories and observations fit together. Ludewig (2003) agrees with the foregoing definitions and adds that a model needs to posses three main features, namely, a) a mapping feature, which means that a model is based on an original idea, b) reduction feature, meaning that a model only reflects a selection of original properties and c) pragmatic feature meaning that a model needs to be usable in place of the original with respect to some purpose.

Government Policy; Taxation, technology policy, agro-research policy, international, export policy

Marketing Strategy; Markets accessed, direct tea marketing, channels of distribution subscription to tea standards

Firm Size; Tea buying centres, Staff, Quantity of tea, production capacity, factory asset base, Suppliers, production lines

Liberalization; New markets, number of tea players, competition in the industry, self-regulation, ease of doing business, quality of tea

Export Performance; number of international markets, volume of sales, dividend payout/bonus, average tea prices

Technology; Reduced wastage, developed new varieties, collection & weighing of tea, production systems, E-marketing, product development, increased quality tea production

Independent Variable   **Moderating Variable**   **Dependent Variable**

Figure 2.4:   The Conceptual Framework

2.4   Independent Variables

2.4.1. Marketing Strategy

Marketing of Kenya's teas has for a very long time depended on five major markets that are referred as traditional markets namely, United Kingdom, Pakistan, Egypt, Afghanistan, Sudan and the emerging market of United Arab Emirates. These markets import over 77% of Kenya's tea (Tea Board of Kenya, 2012; Kenya Tea Development Agency, 2012).

Table 2.3: Tea Export Destinations

Destination	2010/11	2011/12
Egypt	91.2	81.5
Pakistan	75.4	81.8
UK	72.3	62.8
Afghanistan	48.6	44.9
Sudan	30.7	27.8
UAE	20.5	23.2
Others	96.8	97.7
Total		**419.7**
	435.5	

Source: TBK, 2012 & KTDA, 2012

It is also important to note that Kenya exports over 95% of her total production leaving only 5% for local consumption. This makes the country vulnerable to international price swings that are prevalent in the global tea business given the forces of demand and supply. This is unlike the major competitors, China and India that consume most of their locally produced teas. Table 2.4 below clearly illustrates this scenario.

Table 2.4: Major Tea Producing Countries

Producers	2010/11	2011/12	Variance (%)
China	1,512.5	1,547.9	2.31
India	985.6	951.4	- 3.47
Kenya	365.1	357.2	-2.19
Sri Lanka	358.7	310.6	- 13.37

Viet Nam	185.6	195.4	5.41
Turkey	175.3	179.3	2.29
Indonesia	127.1	122.8	- 3.15
Japan	102.5	100.6	- 1.96
Argentina	82.9	86.7	4.58
Others	302.8	234.4	- 22.58
Total	**4,198.3**	**4,177.9**	**0.48**

Source: TBK, 2012 & KTDA, 2012

Despite the fact that Kenya is the 3rd largest producer of tea as shown above, it is apparent that it is the leading exporter of tea as shown in Table 2.5 below. This means that there is minimal local consumption compared to China, India and Sri Lanka (Tea Board of Kenya, 2012). This reliance on foreign markets affects KTDA's export performance as almost the entire production is dependent on international markets.

Table: 2.5   Major Tea Exporting Countries

Country	2010/11	2011/12
China	307.1	311.3
India	176.8	174.3
Kenya	435.5	416.5
Sri Lanka	304.4	327.7
Viet Nam	104.3	105.1
Argentina	66.8	65.7

Indonesia	94.6	92.4
Others	170.1	167.6
Volume	**1659.6**	**1660.6**

Source: TBK & KTDA

Kenya's Tea is mainly sold through the Mombasa Auction where over 80% is sold and only 20% is sold through other channels like Direct Sales overseas and local (Tea Board of Kenya, 2012). Tea prices are mainly determined at the auction thus limiting the value of Kenya's tea. KTDA, a major tea player in the country accounting over 60% of total production sells her teas through Mombasa auction and pegs her pricing mechanisms on the weekly prices realized. KTDA has however, enjoyed better prices relative to other players at the auction. In 2011/2012 financial year, KTDA teas fetched an average price of USD 3.18 per kg while the Mombasa average price in the year was USD 2.74. (Kenya Tea Development Agency, 2012).

2.4.2. Firm Size

Firm size has been studied in developing countries and when looked against efficiency, it was found out that efficient firms tend to be large and has linked firm size to technical efficiency. A positive correlation between efficiency and size might also arise if relatively efficient firms have superior cost structure, or if larger firms have more competent management, both of which would allow them to gain market shares (Graner&Isaksson, 2007).

There is a general consensus in the literature that firm size is positively related to the firm's propensity to export (Verwaal&Donkers, 2002). Horst (1972) argues that considering the inherent risk and fixed costs, the proneness to invest abroad must increase with the dimension of the firm.

Despite vast number of studies on size and export behavior, discrepancies in study findings and the absence of variance statistics, prevent researchers from understanding the importance of size. While firm size is positively related to all dimensions (propensity to export, countries exporting to and export attitude for 14,072 Canadian manufactures), its importance is limited as the amount of variance explained is modest (Calof, 1994).

The relationship between firm size and export behavior remains one of the most widely analyzed relationships. The proposition that firm size is positively associated with export behavior is often taken for granted and its acceptance has led both academics and public officials to focus attention on finding ways of improving sector export activities of smaller firms.

 Studies in international marketing literature have found out that firm size is positively related to the firm's propensity to export (Verwaal&Donkers, 2002). Greater size implies greater availability of financial and managerial resources making it easier to set up full-ownership subsidiaries (Tallman &Fladmoe-Lindquist, 2002).

Besides, a large part of the empirical research has observed that firm size correlates positively with the degree of commitment assumed with the entry mode (Quer, Claver&Andreu, 2002). A competent firm with international experience is likely to select the most attractive market to venture and able to accommodate specific needs of the market.

2.4.3. Liberalization of the Tea Sector

Liberalization refers to fewer government regulations and restrictions in a given industry or sector in exchange for greater participation of private players. The doctrine is associated with classical liberalism. The arguments for economic liberalization include greater efficiency and effectiveness that would translate to a "bigger pie" for everybody. In short, liberalization refers to "the removal of controls" to encourage economic development.

Economic liberalization refers to liberalization or further "opening up" of respective economies to foreign capital and investments. Today, Brazil, China and India have achieved rapid economic growth in the past several years after they "liberalized" their economies to foreign capital. The characteristics of economic liberalization include partial or full liberalization of government institutions and assets, greater labour-market flexibility, lower tax rates for businesses, less restrictions on both domestic and foreign capital, open markets among others. Economic liberalization can also be defined as the freedom to engage in economic activity at home and /or a broad, a freedom subject to institutional and policy constraints needed to guarantee public interests at large (Ognivtsev, 2005).

Characteristics of economic liberalization include partial or full liberalization of government institutions and assets, greater labour-market flexibility, lower tax rates for businesses, less restrictions on both domestic and foreign capital, open markets among others. The remarks by Tony Blair "Success will go to those companies and countries which are swift to adopt, slow to complain, is to ensure that our countries can rise to this challenge (Blair, 2005).

Trade liberalization at the level of trade protection is not exogenous. The theory of endogenous protection predicts that higher levels of import penetration will lead to greater protection (Trefer, 1993). When trade protection is modeled endogenously, its restrictive impact on imports is large than ten 10 times the size obtained from treating protection exogenously. Henry (2007) found out that most writings do not find effect on liberalization and real variables tell us nothing about empirical validity of the theory because they do not really test it. Studies that test the theory show that liberalization has significant effects on the cost of capital, investment and economic growth.

Henry (2003) found out that three things happen when emerging economies open their stock markets to foreign investors. First, the aggregate dividend yield falls by 240 basis points. Second, the growth rate of the capital stock increases by an average of 1.1 % points per year. Third, the growth rate of output per worker rises by 2.3 % point per year. Since the cost of capital falls, investment booms, and the growth rate of output per worker increases when countries liberalize the stock market, the increasingly popular view that capital account liberalization brings no real benefits seems untenable.

Chand and Sen (2002) in their paper developed an analytical framework that they employ it to empirically test whether trade liberalization in Indian manufacturing has raised total factor productivity (TFP) growth. The answer is in the affirmative. The results also support a key postulate of the new growth theories that liberalization of the intermediate good sectors has a larger favorable impact on TFP growth than that of the final good sectors.

Kelegama (2010) argues that Sri Lanka's status as an exporter of bulk tea needs to be altered as an exporter of value added teas. This will be done

through importing teas and blending with local teas and then exporting these products as mixed blends will lead to a greater range of Sri Lanka tea exports.

This strategy is intended to widen the existing consumer base for the Sri Lankan exporter allowing the industry to promote teas catering for diverse range of tastes and prices. Sri Lanka exports 90% of its production of which in 2002, 59% was bulk tea. Kelegama (2010) noted that both Kenya and India have liberalized the imports of foreign teas in order to pursue the value-addition and re-export of comparatively cheaper goods. The liberalization of imports allowed the Kenyan tea industry to extend their consumer base to more priced-sensitive markets of Somalia, Sudan and Yemen whilst maintaining the export of pure Kenyan tea to loyal consumers in the UK, Pakistan and Egypt.

India liberalized the import of loose teas, tea packets and tea bags in 1993 for value-addition purposes in order to protect local producers from export substitution, the abolition of import restrictions was twinned with a minimum local content requirement in value added re-exports. International blending centres have been established in London, Rotterdam, Dubai, and Hamburg wherein tea is imported in bulk from blended and then re-exported. One of the main benefits of liberalization in Sri Lanka was the ability to blend cheaper imported teas within the local teas so as to reduce the Free on Board (FOB) price of teas. A lower free on board (FOB) price increases competitiveness of the product and the likelihood that the good will be successful in the market.

The Impact of Liberalization of Tea Sector in Kenya

The major concern in liberalizing the tea subsector is the need to harmonize the legal framework with the policy reforms. The major policy

reforms are deregulation of markets, institutional reforms and microeconomic reforms. Liberalization had a major impact on the then Kenya Tea Development Authority that controlled the small scale tea sector. These reforms had different impacts on the tea sector.

Deregulating markets had led to KTDA being liberalized and privatized in the provision of services such services as extension, processing and marketing. Markets and prices were deregulated to encourage the private sector to play a more important role in producing, marketing and processing agricultural commodities. The tea sub sector was liberalized and government controlled such as extension, processing and marketing have been reduced. Institutional reforms implemented by restructuring KTDA to encourage private competition. Institutional reforms were to reduce the government's involvement in marketing agricultural commodities and allow its marketing institutions to operate like commercial entities and compete with the private sector.

Microeconomic reforms in which removal of restrictions on foreign exchange and restrictions on the exchange rate, retaining and remitting foreign exchange and liberalizing interest rates and allowed exporters to keep most of their earnings in foreign exchange and tea farmers are paid in foreign exchange. The advent of liberalization in Kenya's tea sector did affect the industry in a number of ways including imports of tea allowed, increased exports of tea, removal of government control and free market enterprise leading to both positive & negative effects (improved production and exports, illegal trade of tea).

2.4.4. Technology in the tea sector

Over the years, technology has remained a key challenge in the tea industry in Kenya and KTDA in particular. Whereas the multinational

companies that own the plantation sector are able to mechanize their plucking, it is not possible for the small scale tea sector owing to small acreages averaging 0.5 of an acre for over 95% of the farmers (Kenya Tea Development Agency, 2012). Farmers affiliated to KTDA mainly use hand plucking and this has led to increased cost of plucking due to demand of human labour. For instance plucking cost for KTDA factories in the West of Rift is Kshs 7 while that in the East of Rift is Kshs. 10 (KTDA, 2012).

On the production and processing front, KTDA has undertaken a major step in machinery modernization, mechanization and automation through the introduction of the continuous fermentation units (CFUs). Most KTDA managed factories were until 5 years ago using a large percentage of human labourin processing stages but this has since been replaced by automation of machinery. This automation has led to increased processing capacity from 665 million kgs of green leaf in 2000 to 1,409 million kgs of green leaf currently (KTDA, 2012).

In the theory of structuration, Desanctis and poole (1990) and Orlikowski (1992) have argued that technology is not rendered as an artifact, but instead examines how people as they interact with a technology in their ongoing practices, enact structures which shape their emergent and situated use of technology. Due to competition, KTDA has found it necessary to change her manufacturing processes by embracing technology. Automation of the CFUs is such one important emergent issue in the tea sector.

Level of production refers to the amount of product produced at a given time. Manual adhesive dispensing methods are typically used when production volume is low, while automated methods are typically used when production volume is high. There are broadly three levels of

production depending on nature and purpose. They are subsistence, domestic and export production. This study will look at production for export. Hayes (1990) avers that productivity measurement has not generally been considered part of the information that managers use in planning and control decisions.

2.5. Export Performance

Export performance is the dependent variable in this study. A number of authors have explored export performance from different perspectives. The goal of any export development program is to improve the firm's capabilities, resources, strategies and attractiveness, which in turn should improve export performance (Zou& Stan, 2006).

Marketing research supports export performance especially when companies are involved in international performance (Florin &Agbuehi, 2004). International marketing has moved from being descriptive to studying the differences between exporters and non-exporters to provide performance explanations (Shoham&Kropp, 1998). In today's complex and competitive business world, performance is an indispensable guide for any company analyzing its level of success in both domestic and international markets.

Export performance is quite a complex task given that export performance can be conceptualized and operationalized in many ways. Empirical literature considers three aspects of export performance. Financial, strategic and that of performance satisfaction (Lages&Montegomery, 2004). Research in this area of export performance still remains undeveloped. Defining and understanding export performance is challenging, especially in terms of identifying uniform, reliable and valid performance measures (Katsikeas, Leonidou&Morgan, 2000). Export performance, the dependent variable in this study is defined as outcome of a firm's activities in export markets. The two principal ways of measuring export performance are: Economic (financial measures such as sales, profits and market share) and non-economic (non-financial measures relating to product, market and experience elements).

Most background and intervening variables are associated with economic measures of performance, particularly export sales intensity (export-to-total sales ratio) export sales, growth and export profitability (Katsikeas, Leonidou& Morgan, 2002). Besides, export performance refers to the outcomes of a firm's export activities, although conceptual and operational definitions vary in the literature (Calantone, 2005). Market entry strategies affect business performance in the context of manufacturing industries (Kirca, 2005). Choosing the right entry strategies is one of the key points in international marketing.

Entry mode performance is defined in terms of efficiency or profitability. Some researches indicate that entry strategies affect export performance by determining the control, risk level and company share in foreign markets and end up with the success or failure of the company (Kouck 2003, Karkkainen, 2005; Shi , Po &Siu, 2002).

Westhead (2001) found out that exporting firms recorded significantly higher levels of absolute growth since the business had received their first orders than did non exporting firms. Sadaghiani, Dehghan and Zand (2011) proposed a model of entry strategy and export performance (Figure 1).
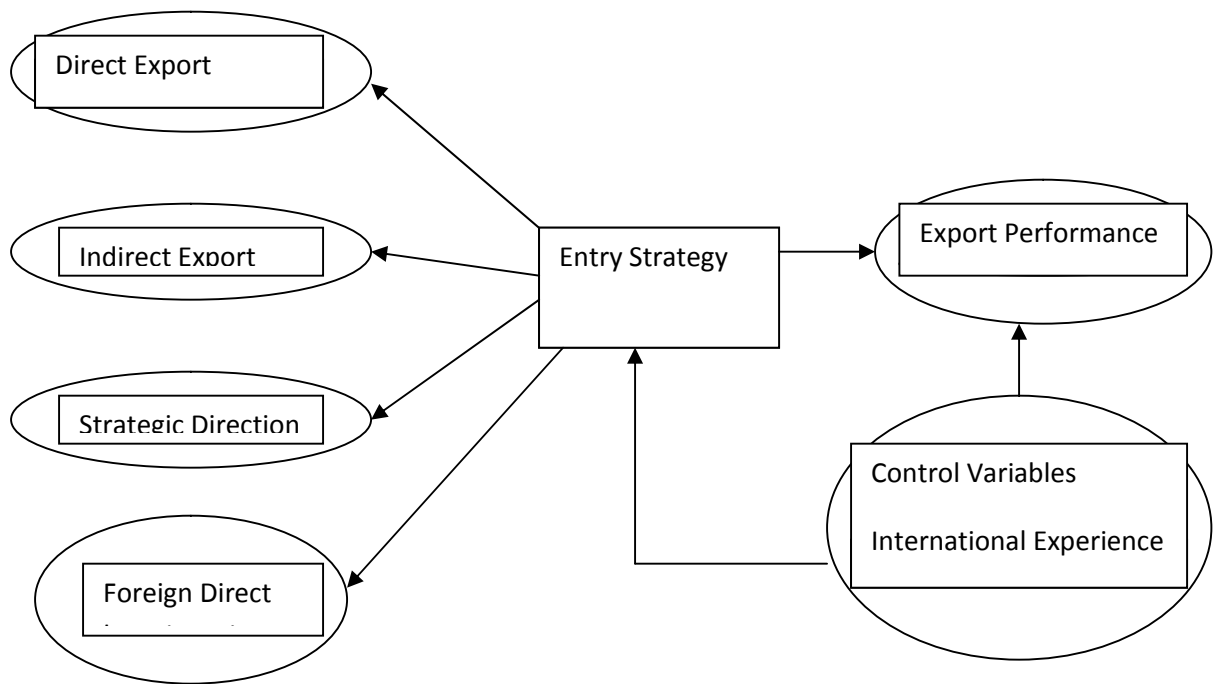
Figure 2.1. Impact of Entry Strategies on Export Performance

Source: Sadaghiani, Dehghan and Zand, (2011)

Selling tea into the international markets in bulk without adding value through branding and packaging limits earnings from exports and it is estimated that earnings could be increased up to six times if this were done (Nyangito, 2000).

2.6. Empirical Literature

A number of researchers have looked at market entry modes of firms studying various aspects. They have thus attempted to help us understand the international business dynamics. Graner and Isaksson (2007) found out that efficiency and export activities are positively correlated and support the existence of learning effects.

Wu and Zhao (2007) noted that high tech firms did not strictly follow the "stage" theory as highlighted by the Uppsala internalization model. Their conclusion was in line with a case study by Turnbull (1987), Bell (1995) and Gurau (2002) that disputed that "established chain" theories cannot fit the hitech and service areas.

Medinets, Muchai and Odiyo (2009) found out that psychic distance is a better predictor of Kenya's export destination than geographic distance and that it is a component of managers' selection of export destination. Motivations for companies to expand into international market have been identified as proactive (pulled by good foreign markets) and reactive (pushed by bad domestic markets). Exporting mode of market entry has been categorized into indirect exporting and direct exporting. Indirect exporting is where products are exported in either their original form or in a modified form to a foreign country through another domestic country. Direct exporting on the other hand is selling the products in a foreign country through its distribution arrangements of a host country company.

In Kenya, export of tea is more direct as there are known and identified tea importers in the various international markets that are relied upon in supporting this business. They include Unilever (Lipton), Taylors of Harrogate, Vanrees, Twinings and Tata Global among others.Zekiri and Angelova (2011) advised that companies that want to expand their activities in global markets need to do some market research and analysis. The selection of markets to enter should be a strategic orientation that treats market entry selection as part of the firm's overall strategy. It is imperative companies should consider the political environment of a country where they intend to operate (Cateora&Graham, 2002). This is particularly critical because a stable political environment is key to exporter business and the reverse is true.

Wilkinson and Nguyen (2003) found out that contingent factors on entry mode performance are a means to gaining access to valuable assets including the knowledge, skills and networks of specialists intermediaries in the form of local agents of foreign distributors. The study also found out interaction effects between a number of factors

including: assets specificity and uncertainty arising from cultural and geographic distance and between uncertainty and a firm's experience in the foreign market and in exporting generally. This was supported by Brouthers (2002) and Chen and Hu (2002).

Sadaghiani, Dehghan andZand (2011) noted that entry strategy affected export performance of Iranian export companies and this effect is higher on those companies which use entry strategy with FDI rather than the ones which use with indirect export, direct export and strategic alliance.

Mushuku (2006) found out that South African companies faced challenges in operating in Tanzania. Among the challenges was under-estimation of the local competition in terms of the quality of the local industries particularly in retail and manufacturing sectors. Competition in the local market had indeed resulted in improvement in quality of services and products. Entry strategy to international markets is among the main elements in international marketing strategies of the companies for competing in international markets which plays a vital role in their success or failure (Dehghan, 2010).

2.7. Critique of Literature Review

The direct and indirect modes as highlighted by Karkkainen (2005) are very much applicable when assessing KTDA's export performance. KTDA has adopted both direct sales and indirect sales through the Mombasa Auction. These two are critical route to market outlets. Currently, KTDA exports 80% of her teas through the Mombasa Auction (indirect) and 20% direct sales (direct mode).

Research and analysis as advised by Zekri and Angelova (2011) are critical components in internal business that are regularly utilized by KTDA in choosing and developing export markets. A full research and information unit has been established for this purpose.

The study by Sadaghiani et al (2002) is critical given that it confirmed what Driscoll found out regarding export as having low risk in export business. The reasons given by Sadaghiani et al (2011) on why companies seek global markets are valid. As for KTDA, there is only 5% local market for Kenyan teas with 95% being in the international market.

2.8.   Research Gaps

Researchers who have found associations between firm size and export activities have failed to provide any information which identifies the amount of variance explained by size making it difficult to discern whether firm size does in fact impact export behaviour (Calof, 1994). This study will seek to find relationship between firm size and export performance.

The export economy in Kenya is critical components to enable the country achieve economic development as envisaged in vision 2030. Studies done on this area are intended to link exports to a number of factors like psychic distance and export destinations (Medinets, Paterson, Muchai&Odiyo, 2009) who found out that psychic distance explained Kenya's export choices better than geographic distance. In a study sponsored by World Bank (Soderbom&Teal, 2001) found out that efficiency with which firms operate is important in understanding whether they can be successful exporters. They found out that policies at the firm level can greatly enhance potential for macro reform to impact on overall performance in African economies.

The literature reviewed has not directly linked the independent variables to the export performance of an organization. This study sought to establish the influence of marketing strategy, firm size, liberalization and technology on the export performance of Kenya Tea Development Agency managed factories in Kenya. Lages and Montegomery (2004) have considered three aspects of export performance namely financial, strategic and performance satisfaction. Research in this area still remains

undeveloped. This study incorporated financial element in the form of sales revenue. This study looked at efficiency from technology perspective and its effect on export performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1   Introduction

This chapter discusses the research philosophy, research design, research strategy and the research instruments be utilized in pursuit of the goals and objectives of this study. The broad objective of the study was to establish the determinants of export performance of KTDA managed factories in Kenya. This chapter further describes in detail the research design and sample design followed in the study. Also highlighted in the chapter is the target population, sample size, sampling procedures, data collection methods and analysis procedures. Reliability and validity testing of the research instruments are discussed.

3.2   Research Philosophy and Design

3.2.1   Research Philosophy

The western tradition of science distinguishes two major research philosophies namely positivist (sometimes called scientific) and interpretivisit (also known as anti-positivist). This study utilized the positivist research philosophy. Positivists believe that reality is stable, empirical and can be observed and described from an objective viewpoint (Healy & Perry, 2000; Trochim, 2000; Krauss, 2005), without interfering with the phenomena being studied.

Burrell and Morgan (1979) in positivist science defines it as an epistemology "which seeks to explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements". Epistemology is

the philosophy of knowledge or how we come to know (Trochim, 2000). Positivism has a long and rich historical tradition. It is so embedded in our society that knowledge claims not grounded in positivist thought are simply dismissed as non-scientific and therefore invalid. These view have been supported by Orlikowski and Baroudi (1991) and Dickson and Desactis (1990) who found out that 96.8 % of research in leading USA journals conform to this paradigm.

Positivism is based upon values of reason, truth and validity and there is a focus purely on facts, gathered through direct observation and experience and measured empirically using quantitative methods-surveys, and experiments and statistical analysis (Blaikie. 1993), Saunders, Lewis and Thornhill, (2007), Eriksson and Kovalainen, (2008), Easterby-Smith, Thorpe and Jackson (2008) and Hatch and Cunliffe (2006). Besides, Hatch and Cunliffe (2006) avers that what truly happens in organizations can only be discovered through categorization and scientific measurement of the behaviour of the people and systems that is truly representative of the reality.

3.2.2   Research Design

Research design is a plan of action indicating the specific steps that are necessary to provide answers to those questions that test the hypotheses and thereby achieve the research objectives. This study utilized descriptive research design. Research design is the determination and statement of the general research approach or strategy adopted for the particular project (Luck & Rubin, 1994). James and Vinnicombe (2002) caution that we all have inherent preferences that are likely to shape research designs and which Blaikie (2002) describes as part of a series of choices that the researcher must consider and he shows the alignment that must connect these choices back to the original Research Problem.

Research design is defined as the link between the collected empirical data, its research questions and the conclusions generated by a study (Yin, 1989). Kothari (2011) defines

research design as the plan of research that is used to answer the research objectives. It is the structure or framework to solve a specific problem. It gives direction and systematizes the research. Research design determines work involved in the project, estimating costs involved, preparing time schedule and verifying results. For this research design to answer the questions and to control variance (Kumar, 2011) and how to get answers to test these hypotheses will utilize descriptive research.

Descriptive research aims at answering the "what" and "why" of the current state of a system. Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts and describes the data collection. Mugenda (2008) note that descriptive studies are used to generate hypothesis with specific objectives resulting in definite conclusions.

3.3   Target Population

Population refers to all elements who possess the characteristic of interest (Ogula, 2005). A research population is also known as a well-defined collection of individuals or objects known to have similar characteristics. Polit and Hungler (1999) refer to population as an aggregate or totality of all the objects, subjects or members that conform to a set of specifications.

Target Population refers to the aggregate of all possible elements within a defined space for which results are required (Mujumdar, 2010). Kazerooni (2001) defines target population as the ultimate clinical test. But the entire target population cannot be studied. It is the objects of interests from which the researcher compiles research information (Kothari, 2011, Cooper &Schidler, 2011).

The target population for this study was 65 tea factories managed by KTDA Ltd that are found on both the East and west of the Great Rift Valley known for tea growing. The questionnaires were administered on the Factory Unit Managers (FUM), Production

Managers (PM), Factory Accountants (FA) and Field Services Coordinators (FSC) who were charged with the day today management of KTDA managed the factories. They provided information on the factories they managed.

3.4   Sampling Frame

A sampling frame is a set of information used to identify a sample population for statistical treatment. A sampling frame includes a numerical identifier for each individual, plus other identifying information about characteristics of the individuals to aid in analysis and allow for division into further frames for more in-depth analysis. In this study, all the 65 tea factories comprise the sampling frame. The factories are grouped into 12 zones and seven regions. The sampling frame is the list of elements from which the sample is actually drawn (Cooper &Schiddler, 2008). It is a complete list of all objects or units of the target population from which a sample is selected. A sampling frame is the set of source materials from which the sample is selected (Turner, 2003).

Clark et al. (2013) in their study of completeness of reporting of a sample size determinations reviewed 446 study protocols overall, only 134 of the 446 (30 %t) sample size calculations could be accurately reproduced. Besides, in a study on how to estimate population and sample size, (Dierckx, 2013), found out that a 30 % response rate is considered to be really good. This study has therefore chosen 30 percent population sample.

This study considered a sample of 32 % of the 65 tea factories that were Targeted according to the clusters given as 12 Zones and seven Regions. Given that the study was intended to get information from factories, the questionnaire was administered on the 4 senior managers of each factory namely, Factory Unit Manager (FUM), Production Manager (PM), Field Services Coordinator (FSC) and the Factory Accountant.

3.5   Sampling Design and Sample Size

Kazerooni (2001) recognizes that it is not possible for every member of the entire population to be studied and measured and recommends that a sample be studied and goes ahead to define a sample as a sub-set of study populations used in a research. Kothari (2004) defines sampling design as the technique or procedure the researcher would adopt in selecting items for the sample. Webster (1985) defines a sample as a finite part of a statistical population whose properties are studied to gain information about the whole. Researchers undertake sampling because of cost census is high (Ader, Mellenbergh& Hand, 2008). According to Cooper &Schidler (2008), the ultimate test of a sample design is how well it represents the characteristics of the population it purports to represent.

This study adopted cluster sampling that selects groups rather than individuals to be included in the study. Factories which are the unit of study were clustered into 12 zones and seven regions. The factories are not found in one region of the country. The study then employed purposive sampling in selecting individuals known to meet certain clear criteria. This entailed choosing (FUM, FA, PM &FSC) as members of management to provide information about the firm. This study adopted a 30% rule for choosing a sample for study out of the 65 factories that are managed by KTDA, this study considered a sample of 21 factories that represent 32 % thus meeting the scientific criteria of 30 % sample of the target population. Using the sample of 21 factories, the following apportionment per region was arrived. Since the factories are nested within the zones which are nested within the regions, a nested sampling design (Crawley, 2012) and random sampling design was adopted as shown in Table 3.1.

Table 3.1. How Sampling Design was Undertaken in the Study

Region	Zone	Calculation of the Study sample (Factories)	Factories Randomly Sampled
1	1	6/65 * 21 = 1.938 = 2	Mataara Kagwe
	2	6/65 * 21 = 1.938 = 2	Makomboki Ngere
2	3	4/65 * 21 = 1.292 = 1	Githambo
	4	5/65 * 21 = 1.615 = 2	Iriaini Chinga
3	5	5/65 * 21 = 1.615 = 2	Kangaita Mununga
	6	3/65 * 21 = 0.969 = 1	Mungania
4	7	8/65 * 21 = 2.585 = 2	Imenti Weru
5	8	6/65 * 21 = 1.938 = 2	Tegat Kapkatet
	9	6/65 * 21 = 1.938 = 2	Kapkoros Mogogosiek
6	10	6/65 * 21 = 1.938 = 2	Nyankoba Nyansiongo

	11	6/65 * 21 = 1.938 = 2	Kiamokama
			Ogembo
7	12	3/65 * 21 = 0.969 = 1	
			Chebut
Total			
		21	21

3.6   Data Collection Instruments

To realize the objectives of the study, a number of data collection methods were employed. In particular, structured questionnaires were utilized. The tool of data collection in this study was the questionnaire.

The questionnaire had both likert scale and open ended questions, a combination that was intended to get the depth of information and data that was analyzed to realize the objectives of the study. Likert questions had a rating for possible answers or outcome that the respondents rated on a scale of one to five were employed during the interview. While open ended questionnaires with questions that allow respondents to answer the way they feel as in their own words sought opinions.

3.7   Pilot Testing

Pilot testing is critical in a research project and plays a key role in ensuring that the research instruments used in data collection are reliable and valid. In this study the questionnaire was tested by taking a sample of 2 % of the study population. In this case the questionnaire was tested using 2 % of 65 factories and this resulted into one factory to apply the questionnaire. Pilot testing determines accuracy of research instruments through refinement of the instruments before data collection. Pilot testing establishes

weaknesses if any in the data collection instruments and make it realistic and reliable. In this research, pilot testing was be done by sampling few factories in order to assist in the alignment of questions and questionnaire.

3.8. Reliability test for the questionnaire

Cronbach alpha was calculated to establish the correlation coefficient between the sets of data. The results were then used to establish the reliability of the questionnaire as a research tool. According to Kurpius and Stafford (2006) reliability coefficient refers to the scores obtained on a test. A reliability coefficient of zero indicates that the test scores are unreliable. On the other hand the higher the reliability coefficient, the more reliable or accurate the test scores. For research purposes, tests with a reliability score of 0.7 and above are accepted as reliable, whilst for clinical decision making, test scores of between 0.8 and 0.9 are acceptable (Kurpius& Stafford, 2006). However, According to Kurpius and Stafford (2006), when the Cronbach alpha is between 0.6 to 0.7 it is considered adequate for a newly developed tool in non-clinical studies.

All the variables had a cronbach alpha score of above 0.660. Marketing (0.660) and Export performance indicating a high internal consistency, Firm size (0.957), liberalization (0.826) and technology (0.852) are indicating a very high internal consistency and government policy (0.750) indicating a higher internal consistency.

The idea behind reliability is that any significant results must be more than a one-off finding and be inherently repeatable. Without this replication of statistically significant results, the experiment and research have not fulfilled all of the requirements of testability. This prerequisite is essential to hypothesis establishing itself as an accepted scientific truth (Shuttleworth, 2008).Validity in research on the other hand encompasses the entire experimental concept and establishes whether the results obtained meet all of the requirements of the scientific research method (for instance there must be randomization of the sample groups) (Shuttleworth, 2008).

3.9. Component Factor Analysis

Factor analysis was carried out to establish variability among the observed variables and check for any correlated variables with the aim of reducing data that is found redundant. Statements scoring more than 30% which is the minimum requirement for inclusion of variables into the final model, are retained (Hair, Black &Babin, 2010, Kothari, 2004). While it is generally agreed that loadings from factor analysis 0.7 and above are preferable for analysis, Rahim and Magner (2005) explains that researchers use 0.4 given that 0.7 can be high for real life data to meet this threshold.

Most of the factors that were analyzed using this factor analysis of between 0.4 and 0.7 met this threshold and very few factors did not meet this and thus were dropped from the final questionnaire and subsequent analysis.

3.10 Data Analysis

The study utilized a three stage analysis. First was cross tabulation and percentages to understand relationships between variables. Secondly, the study utilized multiple regression analysis to determine whether a group of variables together predict a given dependent variable (Mugenda&Mugenda, 2003)Thirdly, the analysis of the variables was analyzed using ANOVA and Statistical Package for Social sciences (SPSS). The relationship between variables was assumed to be linear in nature. The regression equation derived was in the following format:

$Y = S_0 + S_1 X_1 + S_2 X_2 +,...,+ S_n X_n + V$

Where $Y =$ is the dependent variable

$X_1,..., X_n =$ are the independent variables

$S_0 =$ is the constant

$S_1,.., S_n =$ are the regression coefficients or change induced in Y by each X

$V =$ Error term

Using the study variables, the following regression equation was derived:

3.11. Regression Model

$$EP = S_0 + S_1 X_1 + S_2 X_2 + S_3 X_3 + S_4 X_4 + S_5 X_5 + v$$

Where,   EP = Export Performance

S_0 =

Constant

S_1, S_2, S_3, S_4, S_5 =

Coefficients

of Independent Variables – X's

X_1 =

Marketing

Strategy

X_2 =

Firm Size

X_3 =

Liberalizatio

n

X_4 =

Technologic

al factors

X_5 =

Government

Policy

=

Error term

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A number of tests were undertaken in the study that formed requisite analysis. They included tests for autocorrelation, multicollinearity, checking for outliers, normality test and heteroscedasticity.

3.12. Testing for Autocorrelation

This is a mathematical representation of the degree of similarity between a given time series and a lagged version of itself over successive time intervals (Escudero, 2009). When computed, the resulting number can range from +1 to -1. An autocorrelation of +1 represents perfect positive correlation while a value of -1 represents perfect negative correlation.

Durbin-Watson test was used to check for the presence of autocorrelation between variables. Gujarati (2003) observed that Durbin-Watson statistic ranges from 0 to 4. A value near 0 indicates positive correlation while a value close to 4 indicates negative correlation. A value ranging from 1.5 to 2.5 indicates that there is no presence of autocorrelation.

3.13. Testing for Multicollinearity

Bickel (2007) posits that, multicollinearity occurs in statistics where two or more predictor variables in a multiple regression are highly correlated. Multicollinearity results in the estimate of one variable impacting on the dependent variable while controlling for other variables that tends to be less precise than if predictors were uncorrelated.

The Gauss-Markov assumption only requires that there be no perfect multicollinearity and so long as there isn't perfect multicollinearity, the model is identified, that is it can estimate all the coefficients and that the coefficients will remain best linear unbiased estimates (BLUE) and that the standard errors will be correct and efficient (Golder&Golder, 2013). Variance inflation factor (VIF) method is used to test for

multicollinearity (Bickel, 2007; Gujarati, 2003). Using this method, a tolerance of less than 0.20 and a VIF of more than 5 indicates a presence of multicollinearity.

3.14. Pearson Correlation Coefficient

This is a measure of the strength of a linear association between two variables and is denoted by R. R takes a range of value from +1 to -1. A value of 0 indicates that there is no association between two variables. A value greater than 0 indicates a positive association, that is as the value of one variable increases, so does the value of the other variable. A value less than 0 indicates a negative association, that is as the value of one variable increases, the value of the other variable decreases. In testing for correlation between variables, a p-value for the test is .000 which means there is strong evidence of two variables linearly correlated.

3.15. Normality Test

The assumption of a normal model for a population of responses was be required in order to perform inference procedures. So as to make deductions, from an analysis, assumption of a normally distributed dependent variable is important. A Q-Q test for normality was performed on the dependent variable (Export Performance). Q-Q plot is a plot of the percentiles (or quintiles) of a standard normal distribution against the corresponding percentiles of the observed data. If the observations follow approximately a normal distribution, the resulting plot should be roughly a straight line with a positive slope. Q-Q plot should be linear.

The quantile-quantile or q-q plot is an exploratory graphical device used to check the validity of a distributional assumption for a data set. In general, the basic idea is to compute the theoretically expected value for each data point based on the distribution in question. If the data indeed follow the assumed distribution, then the points on the q-q plot will fall approximately on a straight line. (Scott et al 2011)

3.16. Testing for Heteroscedasticity

Heteroscedasticity occurs when responses are not normally distributed or when the error term does not have constant variance (Berry & Feldman, 1985). Measurement error can cause heteroscedasticity in that some respondents might provide more accurate responses than others. Equally, it occurs if there is subpopulation difference. Scatter plot was used to test for heteroscedasticity in the dependent variable. The scatter dots were randomly distributed to check for heteroscedasticity and there was no observed systematic pattern of the scatter dots in the diagram.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF FINDINGS

4.1 Introduction

The study sought to establish the determinants of Export Performance of Kenya Tea Development Agency Managed Factories in Kenya. This chapter presents analysis of data with various statistical tools for different constructs and variables in the study. The data from questionnaires were organised, coded, analysed and converted into quantitative summary reports for analysis using the statistical package for social sciences (SPSS) version 20. Data were entered into the program from which analysis was run to obtain descriptive statistics in the form of frequencies and percentages. Reliability of the variables was checked using the Cronbach's alpha coefficient. Using content analysis technique, qualitative data were coded, put into theme categories and tallied in terms of the number of times it occurred. Qualitative and quantitative data were linked to enable confirmation and elaborate analysis and interpretation of variables.

4.2. Bio Data

This section presents general information of the respondents that also enriches the reliability and validity of the data collected considering that it was collected from the intended respondents' categories.

4.2.1. Response Rate

According to Fowler, (2004), response rate in a research context refers to the extent to which the collected set of data includes all sample members of the targeted population. Response rate was calculated by dividing the number of questionnaires collected by the number of the entire sample and multiplying the result by 100%. In this study, data were collected from factories managed by Kenya Tea Development Agency. A total of 84

questionnaires were fielded and 76 were returned. This represented 90.5% response rate. A response rate of above 50% is adequate for analysis (Babbie, 2002), therefore, a 90.5 % response rate, was considered sufficient for analysis.

High response rate help to ensure that survey results are representative of the target population. A survey must have a good response rate in order to produce accurate and useful results (Punch, K.F. 2003). The better the respondents are known to the interviewer, the better response rate. In this study, interviewers who were known to the respondents were used and this could be attributed to the high response rate of 90.5% attained.

4.2.2. Results of the Pilot Study

To test for reliability, Cronbach's Alpha type of reliability co-efficient was used, taking into account a value of 0.7 or higher as being sufficient (Sekeran, 2003; Castillo, 2009). Principal component analysis was used for factor analysis so as to identify the least number of factors that accounted for the common variance in a set of variables as advised by Myers (2003). All variables in the study were subjected to SPSS version 20 for factor analysis and the outputs summarized in tables.

While it is generally agreed that loadings from factor analysis 0.7 and above are preferable for analysis, Rahim and Magner (2005) explain that researchers use 0.4 given that 0.7 can be high for real life data to meet this threshold. All variables were subjected to Cronbach's Alpha so as to ascertain their reliability before proceeding with data analysis. The results were presented in Table 4.3. From the table, Cronbach's Alpha of marketing strategy before factor analysis was 0.686 which was close to the required, for data to be considered as reliable, (Sekeran, 2003; Castillo, 2009). Factor Analysis was carried out to determine some of the factors that were scoring poorly in marketing. One factor scored less than 0.244 and it was dropped because it did not meet the minimum threshold of .4 as advanced by Rahim and Magner (2005), as shown in the Appendix 4.

A test on reliability showed that Cronbach's Alpha improved by 0.038 to 0.724 is shown in Table 4.1.

All other variables had Cronbach's Alphas' above 0.7 before factor analysis. However, factor analysis was carried out on all of them. Some of the factors that scored less than 0.4 (Rahim and Magner, 2005), were dropped as shown in Appendices 4 - 9. Atest on Cronbach's Alpha for each of those variables whose factors were dropped showed an improvement as is shown in Table 4.1. For instance, Cronbach's Alpha for Liberalization improved from 0.710 to 0.737, a change of 0.027, while, technology improved from 0.779 to 0.810, a change of 0.031, as shown in Table 4.3. The Cronbach's Alpha of the moderating variable (Government Policy) changed from 0.716 to 0.719 an improvement of 0.003 while the dependent variable (Export Performance) changed from 0.730 to 0.791 a change of 0.061.

Table 4.1: Reliability Test for all Variables before and after

factor analysis

Reliability Statistics

Variable	Cronbach's Alpha (before Factor Analysis)	Cronbach's Alpha (after Factor Analysis)	Number of Items after Factor Analysis
Marketing	.686	.724	6
Firm Size	.748	.774	9
Liberalization	.710	.737	9
Technology	.779	.810	10
Government Policy	.716	.719	7
Export Performance	.730	.791	6

4.2.3. Gender of Respondents

The study sought to identify the gender distribution of the respondents. Figure 4.1, shows that the majority (81.58%) were males while 18.42% were females. The top management at KTDA managed factories was dominated by male managers. At the Mombasa tea auction, this male dominance was also witnessed.
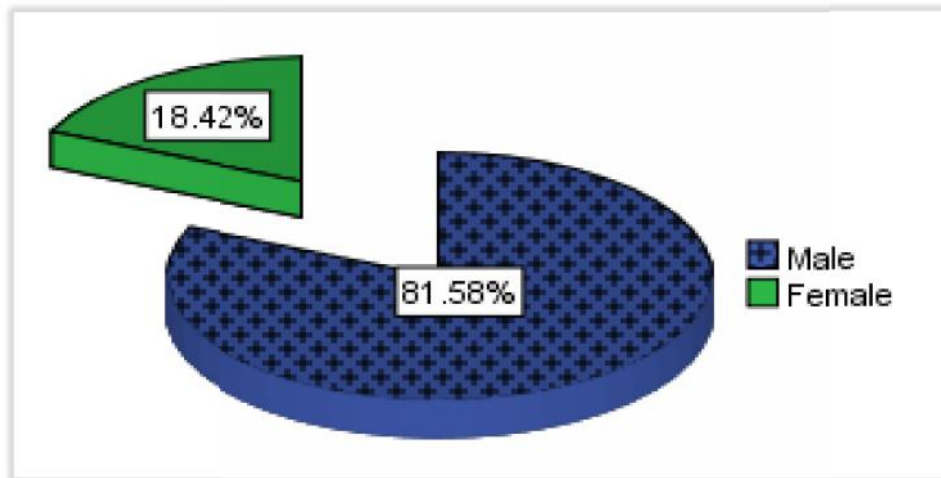
Figure 4.1: Gender Distribution of the Respondents

4.2.4. Years the respondents worked in the factory

The respondents were asked the duration they had worked in their respective factories which is same as length of service of the respondents in the factories. The findings were represented in Figure 4.2. From Figure 4.2, 48.76% had been with the factory for between 0 – 2 years and 51.32% had worked in the respective factories for 2 years and above. Therefore, the data collected from these respondents were reliable considering that they had acquired necessary experiences required to respond to the research instruments. Besides, the respondents have stayed fairly in their workplace and have good knowledge of the factory and that they can give reliable information.

These findings confirm that at the top level management, there is regular transfer as the managers do not stay in one factory for long. About 80.26% of the respondents had worked between 0-4 years at the factories. This also means that there exist association between length of service and export performance of KTDA managed factories. In an attempt to realize better returns to the tea farmers, KTDA undertakes frequent review of her staff postings fairly regularly given that this staffs are the top management who direct policy and strategy.
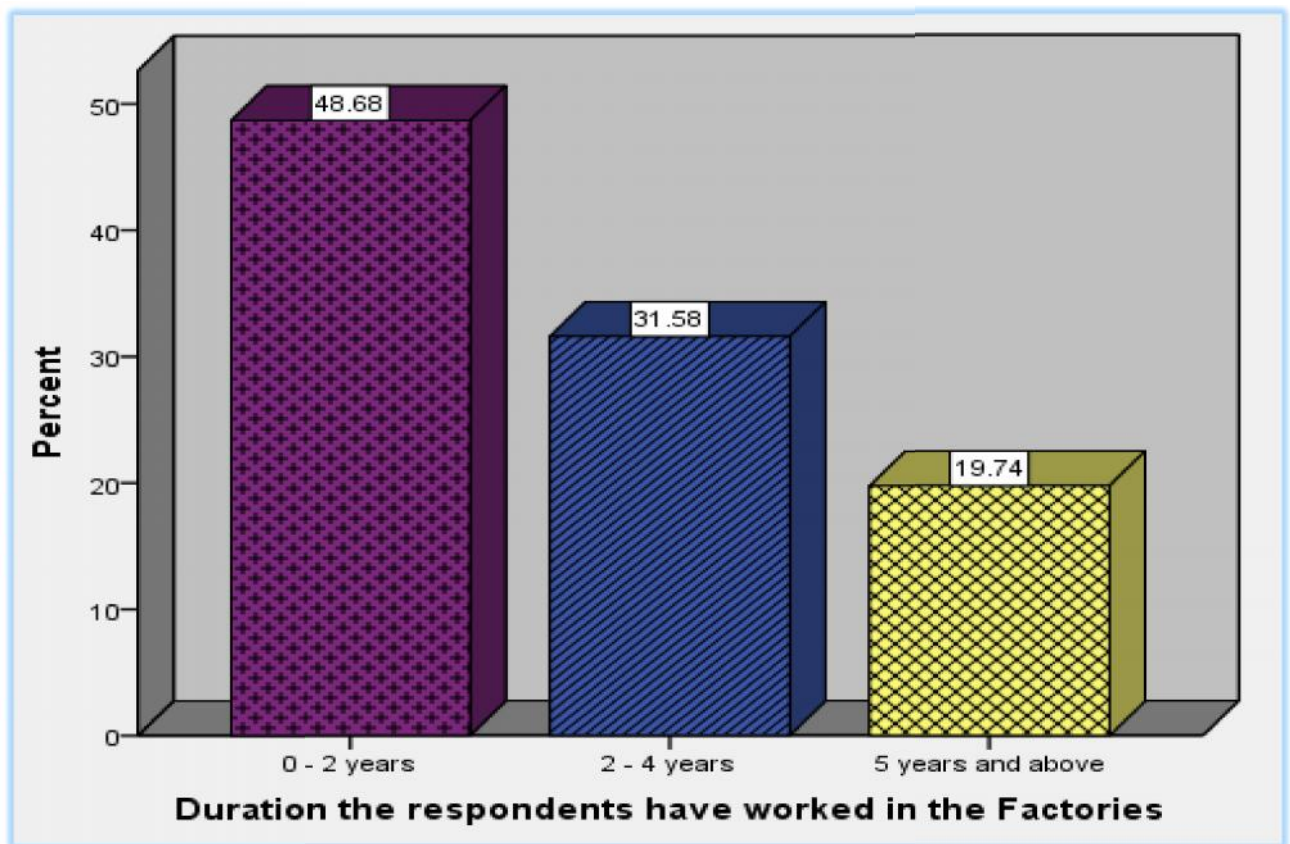
Figure 4.2: Years Respondents have worked in the Factories

4.2.5. Level of Education Qualifications of the Respondents

The study sought to find out the level of education qualification of the respondents. The findings are represented in Figure 4.3. From the Figure, 69.73% of the respondents had at least a university degree, 25% were Diploma holders and 5.26% had other additional

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educational qualifications.Thehighliteracy rate is also explained by the fact that the respondents are the top managers in factories managed by KTDA in Kenya. It is normal in KTDA to occupy lower rank when joining as trainee management joining services as a fresher from college, then as one gains experience, one moves into the middle level and from there to the senior level management.
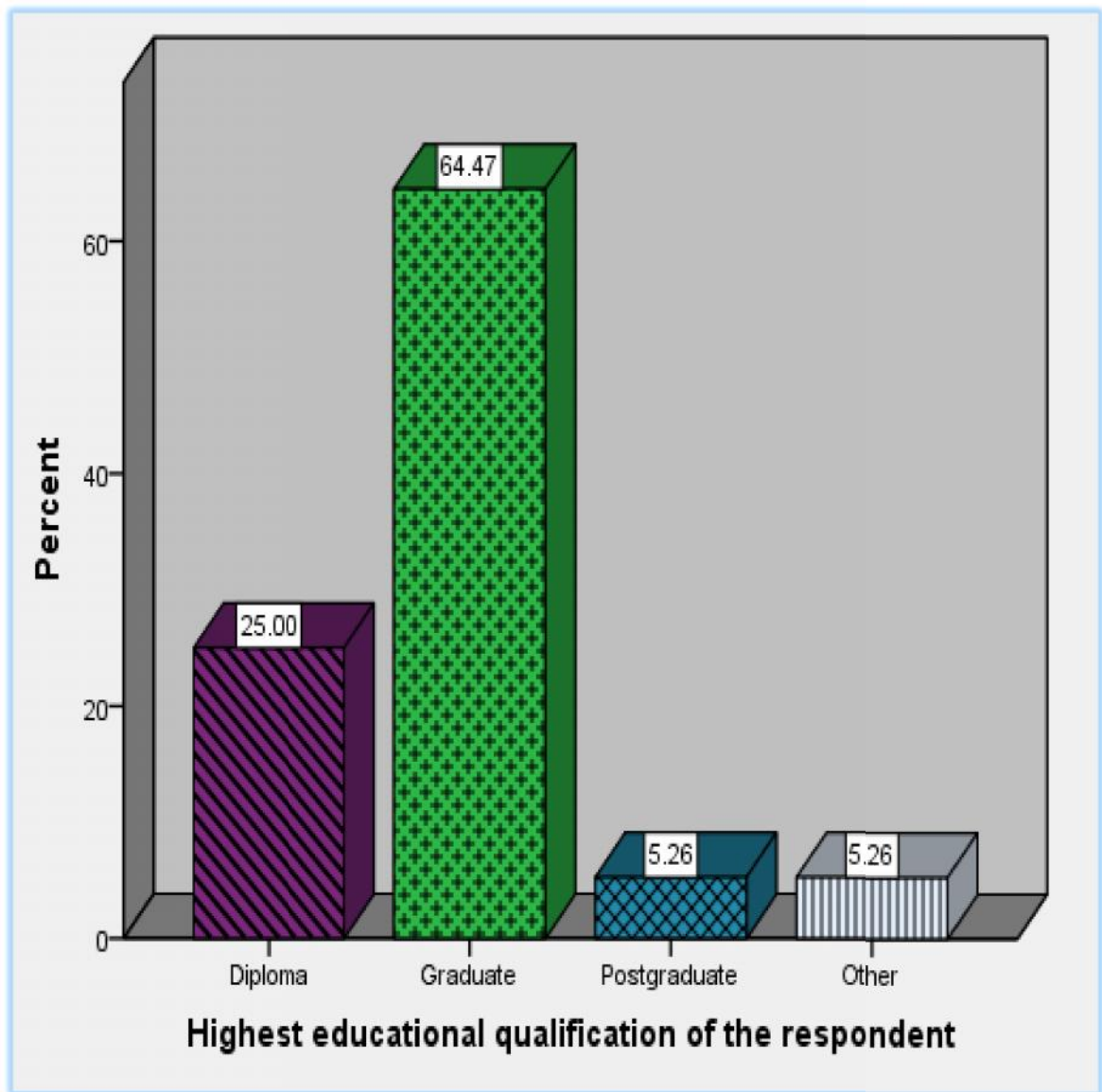
Figure 4.3. Education Qualification of the Respondents

4.2.6. Age of the Factory

The study wanted to find out the age of the factories. The results are represented in Figure 4.4. From the results, 67.11% of the factories were 15 years old, 18.42% were 10 – 15 years old, 9.21% were 5 – 10 years old and 5.26% were 1 – 5 years old as shown in Figure 4.4. The fact that majority (94.74% had operated more than 5 years) of the factories had existed for many years increases the data reliability because these factories had high probability of having the experience the research sought to find out in terms of their export performance. Besides, the age of the factory could explain the export performance of the factory and therefore its return to farmers. In the study, 67.11% of the Factories with over 15 years had high tea production and therefore better export performance.
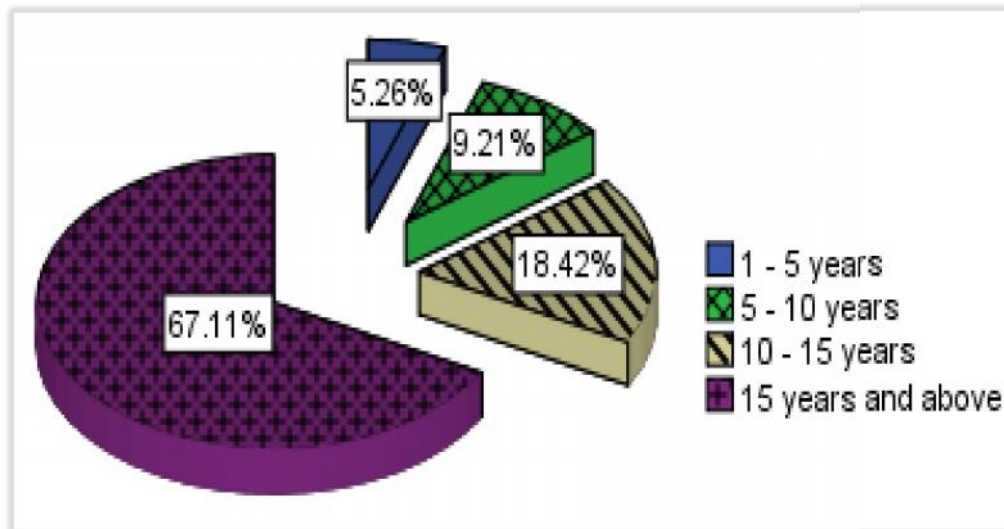
Figure 4.4: Age of the Factory

4.3. Requisite Analysis

4.3.1. Durbin-Watson Test

Durbin-Watson test is based on the assumption that the errors in the regression model are generated by a first-order autoregressive process observed at equally spaced time periods (Montgomery, Peck & Vining 2001). The results shown in Table 4.2 indicate that the Durbin-Watson's value is 2.190 and it is within the value ranging between 1.5 and 2.5 and hence there was no presence of autocorrelation in the data. Given the absence of autocorrelation, it therefore means that the data was reliable for further analysis

Table 4.2: Testing for Autocorrelation

Model Summary[b]	
Model	Durbin-Watson
2	2.190[a]

a. Predictors: (Constant), Technology, Firm Size, Marketing, Liberalization, Government Policy

b. Dependent Variable: Factory's Export Performance

4.3.2. Multicollinearity Test

Multicollinearity occurs when more than two predictor variables are inter-correlated. To test for multicollinearity, Variance Inflation Variable (VIF) or tolerance, a diagnostic method was used to detect how severe the problem of multicollinearity in a multiple regression model. VIF statistic of a predictor in a model is merely the reciprocal of

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tolerance and it indicates how much larger the error variance for the unique effect of a predictor (Baguley, 2012).

If two or more variables have a Variance Inflation Factor (VIF) of 5 or greater than 5, one of these variables must be removed from the regression analysis as this indicates presence of multicollinearity (Runkle et al., 2013). From Table 4.4 there is no VIF with a value of 5 or greater than 5 and therefore no presence of multicollinearity.

Table 4.3: Testing for Multicollinearity

Model	Collinearity Statistics	
	Tolerance	**VIF**
Marketing	.648	1.543
Firm Size	.759	1.318
Liberalization	.368	2.720
Technology	.550	1.819
Government Policy	.979	1.021
Dependent Variable: Export Performance		

4.3.3. Identification of Outliers

This was done in the study using a box plot method. The output is shown in Figure 4.5. From, the Figure, it can be observed that there was no presence of outliers in the dependent variable of Export Performance. This means that there were no observed extreme and far removed responses that will not explain the independent variable.
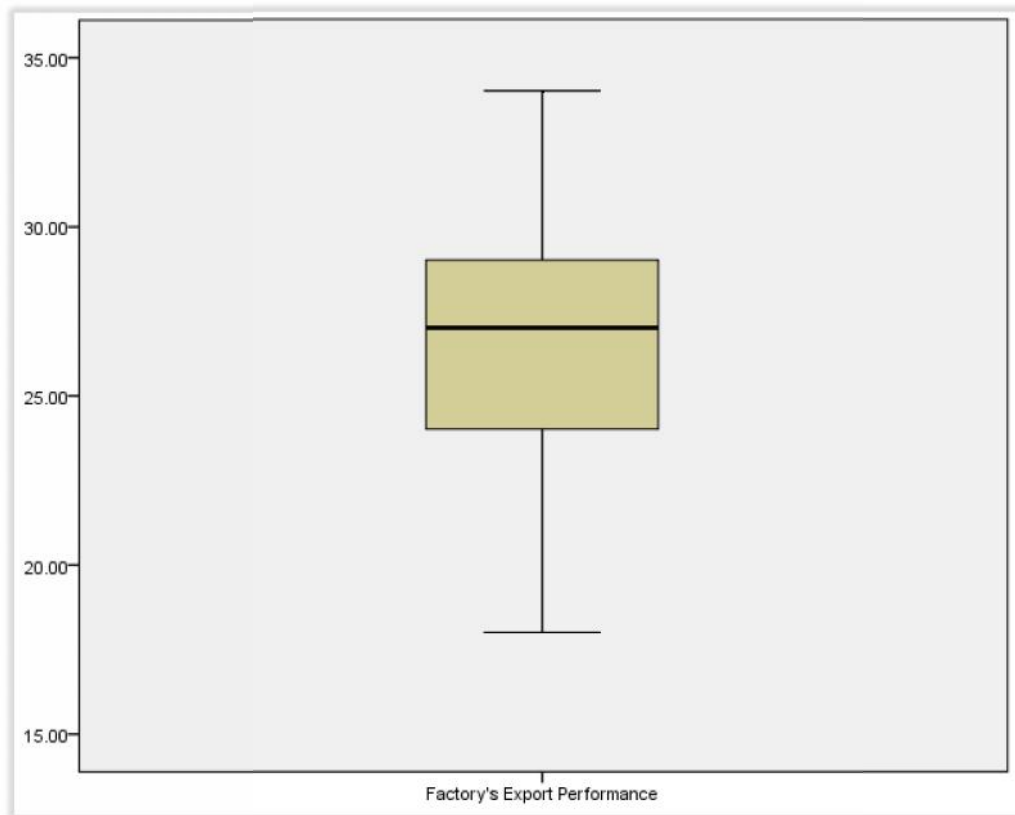
Figure 4.5: Checking for the Presence of Outliers Using Box Plot

4.3.4. Normality Test on the Dependent Variable (Export Performance)

A Q-Q test for normality was performed on the dependent variable (Export Performance)To determine normality graphically, we used the output of normal Q-Q plot. If the data are normally distributed, the data points will be close to the diagonal line (Scott et al 2011). The results are presented in Figure 4.6. From the figure, the data plot shows a flow with a normal line thus a high level of normality.
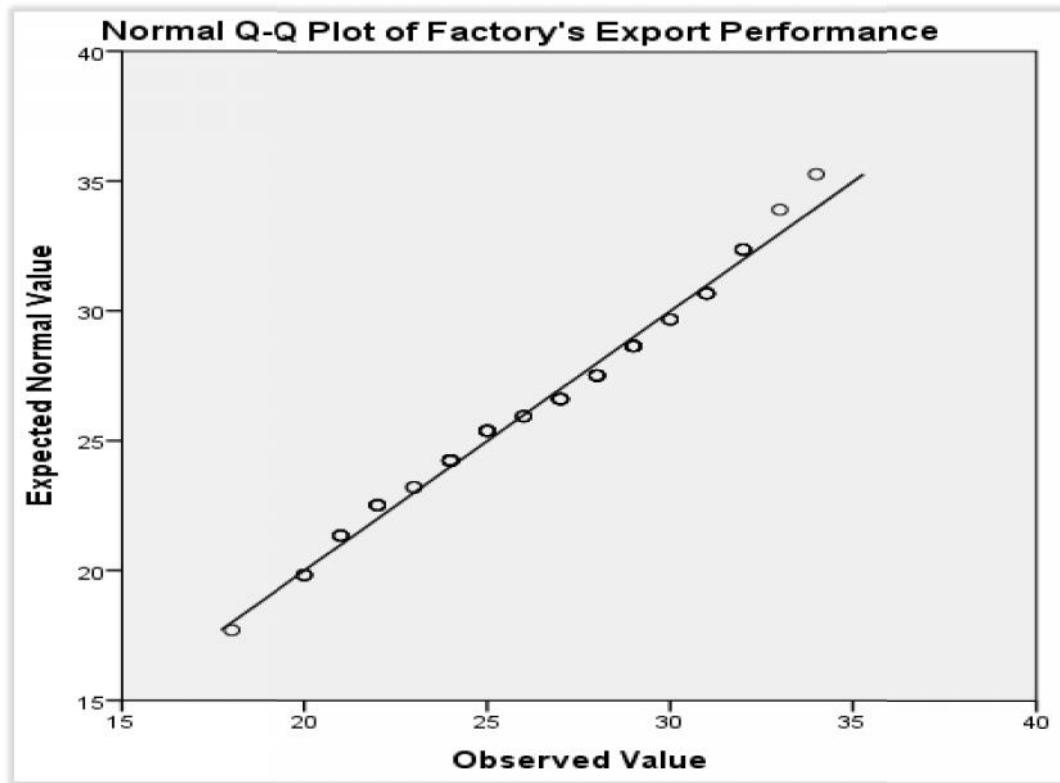
Figure 4.6: Normality test on the dependent variable (Export Performance)

4.3.5. Testing for Heteroscedasticity on the Dependent Variable

In a linear regression model, when the error term does not have constant variance is called heteroscedasticity. Scatter plot was used to test for heteroscedasticity in the dependent variable and the findings were shown in Figure 4.7. From the figure, scatter dots are randomly distributed and thus, there was no observed systematic pattern of the scatter dots in the diagram (Berry & Feldman, 1985). Therefore, there was no presence of heteroscedasticity.
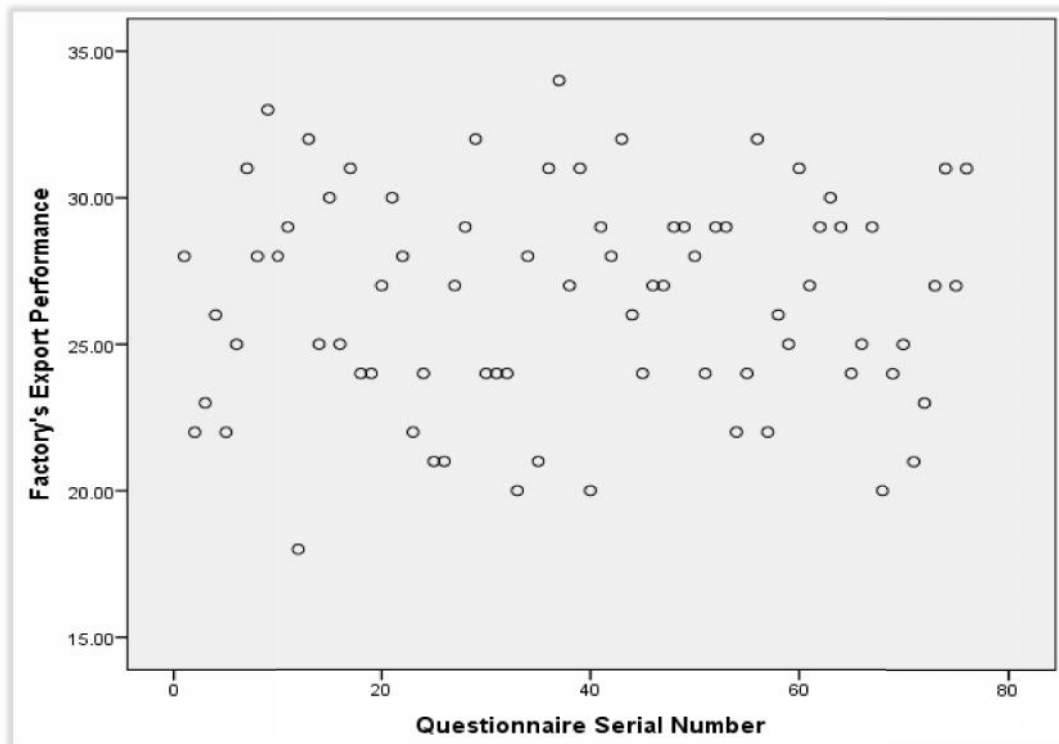
Figure 4.7: Scatter Plot of the Dependent Variable

4.4. Descriptive Analysis for Dependent variable

The study sought to find out the rating of export performance by the respondents. From Table 4.4, 67.2% of the respondents said that international market share was either good or very good, 79% rated international rating as either good or very good, 39.5% rated dividend payout (Bonus) as average, 73.7% rated international sales as either good or very good, 65.8% of the respondents rated the number of international markets as either good or very good and 75% rated volume of sales as either good or very good. On average 69.1% of the respondents rated Export Performance as either good or very good.

Table 4.4: Descriptive Statistics of the Dependent variable

Statements	Fair		Average		Good		Very Good		Total %
	F	%	F	%	F	%	F	%	
International market share	3	3.9	22	28.9	35	46.1	16	21.1	**100.0**
International rating	1	1.3	15	19.7	35	46.1	25	32.9	**100.0**
Dividend payout (Bonus)	5	6.6	30	39.5	29	38.2	12	15.8	**100.0**
International Sales	4	5.3	16	21.1	35	46.1	21	27.6	**100.0**
Number of international markets	2	2.6	24	31.6	40	52.6	10	13.2	**100.0**
Volume of sales	1	1.3	18	23.7	42	55.3	15	19.7	**100.0**
Averages	**2.7**	**3.5**	**20.8**	**27.4**	**36**	**47.4**	**16.5**	**21.7**	**100.0**

Key: F = Frequency, % = Percentage

4.5. Descriptive Analysis of Independent Variables

The study sought to examine the effects of the independent variables on the export performance ofKTDA managed factories in Kenya. The following are the results of the descriptive analysis.

4.5.1. Descriptive Statistics of Marketing Strategy

The research itemized the descriptive statistics of marketing strategy in terms of frequencies and percentages. Table 4.5 shows the findings. On whether the factory has invested in E-Marketing, 55.2% agreed either to a large extent or to a very large extent. 78.9% either said to a large extent or to a very large extent that they market their tea directly to the international market. On whether most of the tea is sold at local markets, 88.1% said either to a large extent or to a very large extent. 53.9% said that they market their tea indirectly to the international market through the agents either to a large extent or to a very large extent, 89.5% said that to a large extent most of their tea is sold at international markets and on whether there are clear channels of distribution of tea, 59.3% said either to a large extent or to a very large extent there are clear channels of distribution of our tea.

This finding which indicates that 89.5% of the respondents confirming that most teas is sold in the international markets. This is in agreement with the statistics given by Kenya Tea Development Agency and Tea Board of Kenya (Table 2.3). Considering that 55.2% of the respondents indicated that KTDA has invested in E-marketing means that the same explains the low contribution of marketing strategy in export performance. Equally, the global tea market is considered to be one village courtesy of technology, KTDA does not have a structured investment in E-marketing that will provide a marketing platform for her teas. E-marketing also affords the opportunity for tea buyers to purchase teas from the comfort of their offices.

Table 4.5: Descriptive Statistics of Marketing Strategy

Statements	Not at all		Little extent		Moderate extent		To a large extent		To a very large extent		Total %
	F	%	F	%	F	%	F	%	F	%	
Our factory has invested in E-Marketing	2	2.6	7	9.2	25	32.9	34	44.7	8	10.5	100.0
We market our tea directly to the international market			2	2.6	14	18.4	41	53.9	19	25	100.0
Most of our tea is sold at local markets			1	1.3	8	10.5	40	52.6	27	35.5	100.0
We market our tea indirectly to the international market through the agents	2	2.6	11	14.5	22	28.9	33	43.4	8	10.5	100.0
Most of our tea is sold at international markets					8	10.5	37	48.7	31	40.8	100.0
There are clear channels of distribution of our tea	3	3.9	3	3.9	25	32.9	35	46.1	10	13.2	100.0
Averages	2.3	3	4.8	6.3	17	22.4	36.7	48.2	17.2	22.6	100.0

Key: F = Frequency, % = percentage

Marketing Challenges Facing Small scale Tea Farmers in Kenya

The respondents were asked if there were marketing challenges facing small scale tea farmers in Kenya. The findings were presented in Figure

4.8. From the figure 93.42% of the respondents were in agreement while only 6.58% thought there were no challenges facing small scale tea farmers in Kenya.
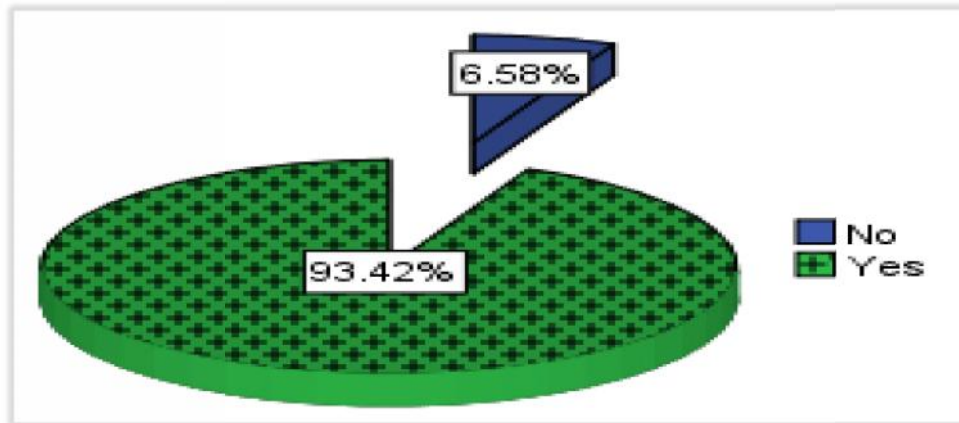
Figure 4.8: Marketing Challenges Facing Small scale Tea Farmers in Kenya

The respondents, who agreed that there were challenges, were further asked to list some of the challenges that affect the small scale tea farmers in Kenya. Table 4.6 shows the results in which 30.4% mentioned fluctuating international market prices, 10.1% mentioned climatic changes, 7.2% cited buyer driven tea prices leading to poor returns, 5.8% mentioned competition from other beverages such as soda, water and beer, 7.2% cited competition from multinationals, 8.7% cited political instability, 2.9% mentioned price control by the government, 10.1% cited the presence of middlemen, 14.5% cited lack of value addition and 2.9% overproduction of tea production (80%) through the auction.

Table 4.6: Marketing Challenges Facing Small Scale Tea Farmers in Kenya

Challenges	Frequency	Percent	Cumulative Percent
Fluctuating international market prices	21	30.4	30.4
Weather/Climatic changes	7	10.1	40.6
Buyer driven tea prices leading to poor returns	5	7.2	47.8
Competition from other beverages such as soda, water and beer	4	5.8	53.6
Competition from multinationals	5	7.2	60.9
Political Instability	6	8.7	69.6
Price control by the government	2	2.9	72.5
Presence of middlemen	7	10.1	82.6
Lack of Diversification/Value addition	10	14.5	97.1
Overproduction of tea	2	2.9	100.0
Total	**69**	**100.0**	

The main marketing challenges facing small scale tea farming managed by KTDA include lack of diversification or value addition. Failure to add value to tea means that income to small scale tea farmers will be low. This finding is confirmed by Kalegema 2010 in his study of tea value addition in Sri Lanka where he found out that sales in bulk form was a problem that Sri Lanka had to deal with and have now achieved about

45% tea value addition of her total production compared to Kenya only selling 5% of tea in value added form (TBK, 2012).

International price volatility is essentially due to lack of diversification and value addition and in some instances due to global overproduction leading to fluctuating international market prices. Probably due to the challenges inherent in marketing Kenyan teas, is likely to lead to low contribution of marketing to the export performance of KTDA managed factories where it explains 6.8% of the changes in export performance and is ranked number four compared to the other independent variables (Table 4.31).

Omari (2005) identified a number of challenges facing the tea producers in their efforts to undertake tea value addition. They include high cost of packaging materials that meet international standards, attendant costs of research and development, high promotion and marketing costs and competition from established players. Besides, the National Tea Policy has enumerated challenges facing the tea industry in Kenya including low productivity, low product diversification and value addition, narrow market channels, enabling regulatory infrastructure, multiple taxation, low domestic consumption, production inefficiencies, low incentives to investments, negative impacts of climate change on tea production, yield and quality and price fluctuation (Ministry of Agriculture, 2014)

The National Tea Policy has also identified a number of factors that have hindered optimum potentialof the tea industry in Kenya. These include insufficient research technology transfer, high cost of inputs like fertilizer, high cost of labour and energy, low participatory research and development and insufficient targeted value addition, trade and promotion (Ministry of Agriculture, 2014)

Factory Subscription to Local and International Standards

The respondents were asked if the factories they worked for subscribed to local and international standards. All the respondents were in agreement the factories they worked in subscribed to local and international. The study further sought to find which standards the factories subscribed to and the findings are presented in Figure 4.9. From the Figure, 85.53% said that they subscribed to both local and international standards while 14.47% said they subscribed to international standards. Subscription to local and international standards is a critical component of international trade. This ensures quality checks and uniformity of product.
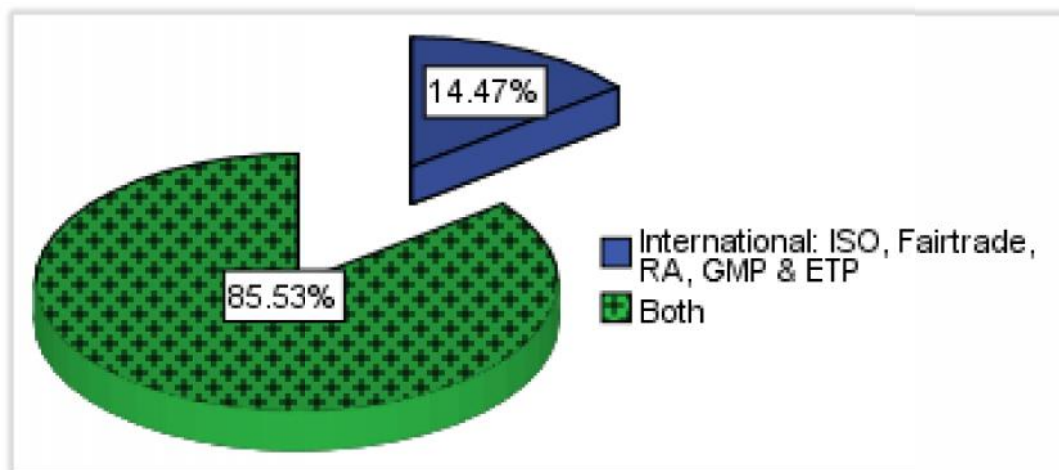
Figure 4.9: Subscription to local and international standards

Subscription to Fairtrade and Rainforest Alliance (RA) for instance earned KTDA factories premiums at a rate of USD 10 cents per Kg (KTDA 2012). Some buyers in the United Kingdom and Germanyinsist on subscription to these international standards. In Iran market also, Good ManufacturingPractices (GMP) is a condition prior to selling tea in that market and therefore all KTDA factories have as a matter of policy undertaken to subscribe to GMP. Equally, local standards like Kenya Bureau of Standards (KEBS)

and Kenya Plant Health Inspectorate Services (Kephis) are critical in such markets like Japan (KTDA 2012) as teas sold to that market must be certified by Kephis.

Effects of Ad Valorem Levy on Tea Exports

The research sought to find out if Ad valorem levy that was introduced by government affected tea exports and to what extent. The findings are summarized in Figures 4.10 and 4.11. From Figure 4.10, 76.32% of the respondents affirmed that ad valorem affects tea exports while 23.68% were of the opinion that it had no effects. Since the Government introduced this levy, there had been a hue and cry from KTDA that it had affected their export business. Majority of the respondents (76.32%) confirmed that Ad valorem Levy had a negative impact on export performance. Government's policy to introduce taxation at the export outlet has affected the export volume and price of tea per kg in the international markets.

Ad valorem levy affects tea exports negatively and as a sales tax, it made buyers abandon KTDA tea for cheaper teas at the auction. This will certainly lead to declining tea prices. This finding is confirmed by the report of Mombasa Auction sale 9 (KTDA, 2012) of 1st March 2012 at Mombasa in which the demand of KTDA teas plummeted and prices discounted by three US cents per kilogramme, while prices of tea from competing neighbouring countries of Uganda, Rwanda and Tanzania appreciated by between five US cents and 22 US cents per kilogramme in the first week of Auction in Mombasa after ad valorem levy coming into effect.
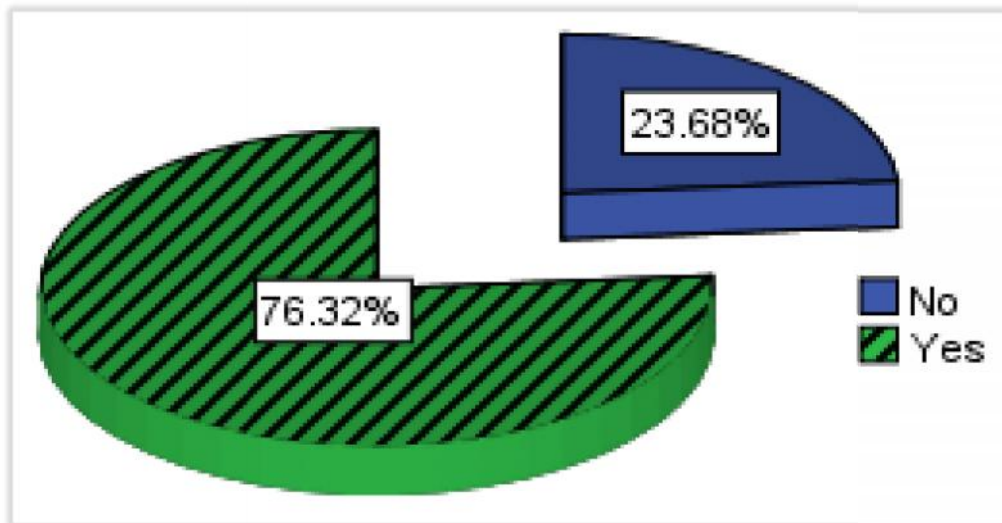
Figure 4.10: Effects of Ad valorem Levy on Tea Exports

Figure 4.11 shows the extent Ad valorem has affected tea exports. From the Figure, 11.11% said to a little extent, 29.63% said to a moderate extent, 51.85% said it had affected to a large extent while 7.41% said to a very large extent. The fact that 88.89% of the respondents confirmed that Ad valorem affected export performance is something that policy makers especially the Government needs to urgently consider reviewing.
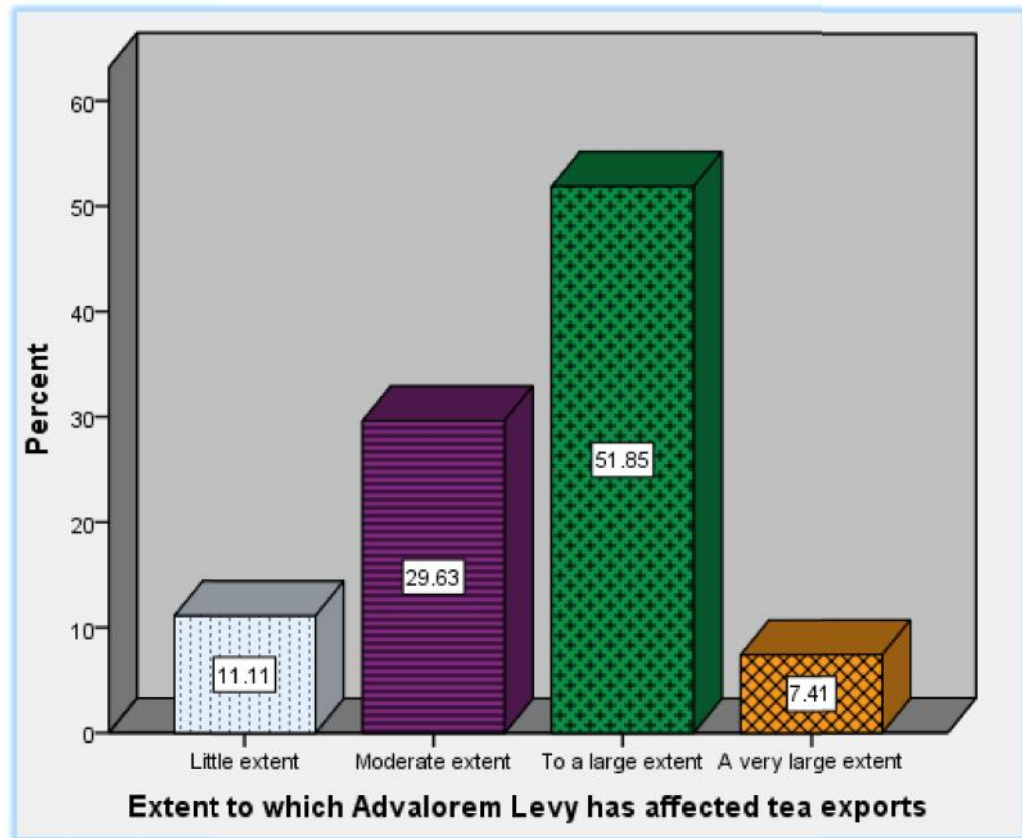
Figure 4.11: Extent Ad valorem Levy has Affected Tea Exports

Currently, Kenya's tea is generally faced with low prices internationally. This state of affairs where prices plummeted to as low as USD 1.7 per kg in 2014 was worrying (EATTA, 2014). Besides, reported global oversupply in relation to consumption being a contributor, the effect of Ad valorem levy has lasting negative effect in tea business. Ad valorem is a sales tax of 1% levied on all tea importers buying Kenyan tea. This has made buyers avoid Kenyan tea to cheaper teas from Rwanda, Burundi, Malawi, Mozambique, Tanzania and Uganda whose teas is sold through the Mombasa Auction. Given the negative impact of Ad valorem, KTDA has written to Government regarding the negative effects of Ad valorem on tea exports ut so far there has not been positive response or way forward provided by Government on this matter.

4.5.2. Descriptive statistics of Firm Size

The study itemized the descriptive statistics of firm size. Table 4.7 shows the findings. From the Table, 67.2% rated average yearly tea production as either good or very good, 79% rated the quantity of made teas as either good or very good, 73.7% rated number of tea buying centers of the factory as either good or very good, 39.5% rated average the number of green leaf collection vehicles as either good or very good, 75% rated the geographical area as either good or very good, 65.8% rated the number of employees of the factory as either good or very good, 92.1% rated the number of suppliers as either good or very good, 90.8% said that the average yearly sales were either good or very good and 80.3% rated the number of production lines as either good or very good.

This finding indicates that firm size is strongly supported by the number of production lines in a particular factory, the number of the suppliers in a factory, catchment area of the factory, quality of made teas produced and the number of tea buying centres serving the factory, the average yearlyproduction and number of employees in a factory. The firm size is clearly a strong variable in exportperformance of KTDA managed factories. This finding is in agreement with (Verwaal&Donkers, 2002) and Tallman &Fladmoe-Lindquist, 2002. This finding answers the gapidentified by Calof (1994) and therefore qualifies the contribution of firm size in export performance.

Table 4.7: Descriptive Statistics of Firm Size

Statements	Fair		Average		Good		Very good		Total
	F	%	F	%	F	%	F	%	%
Average yearly tea production	3	3.9	22	28.9	35	46.1	16	21.1	**100.0**
Quantity of made teas	1	1.3	15	19.7	35	46.1	25	32.9	**100.0**
Number of tea buying centers of the factory	4	5.3	16	21.1	35	46.1	21	27.6	**100.0**
Number of green leaf collection vehicles	5	6.6	30	39.5	29	38.2	12	15.8	**100.0**
Geographical area	1	1.3	18	23.7	42	55.3	15	19.7	**100.0**
Number of employees of the factory	2	2.6	24	31.6	40	52.6	10	13.2	**100.0**
Number of suppliers			6	7.9	37	48.7	33	43.4	**100.0**
Average yearly sales			7	9.2	40	52.6	29	38.2	**100.0**
Number of production lines	2	2.6	13	17.1	29	38.2	32	42.1	**100.0**
Averages	**2.6**	**3.4**	**16.8**	**22.1**	**35.8**	**47.1**	**21.4**	**28.2**	**100.0**

Key: F = Frequency, % = Percentage

Number of Staff in the Factory

The study sought to find out the number of staff in the factories. Figure 4.12 shows the findings. From the figure, most of the factories (88.16%) had staff of more than 100 employees, 10.53% had 50-100 employees while only 1.32% of the factories had below

50 employees. This finding confirmed the extent of automation and size of the firm. Most KTDA managed factories have automated their processing. Factories that had more than one hundred staff had more than three lines of processing. Ordinarily, most of these factories process more than 15 million kilograms of tea per year. This requires more staff but due to automation, they have managed to reduce the number of staff per factory.

Figure 4.12: Number of staff in the factory

Asset Trending of the Factory in the Previous Five Years

The study sought to find out asset trending of the factory in the last five years. From Figure 4.13, 97.37% of the respondents indicated that the factories had a growing trend of assets while only 1.32% indicated that it was either constant or declining. The period under review was that after liberalization, meaning that decision making process was

quite faster with regard to procurement than when the Kenya Tea Development Agency Ltd was under the Government control.
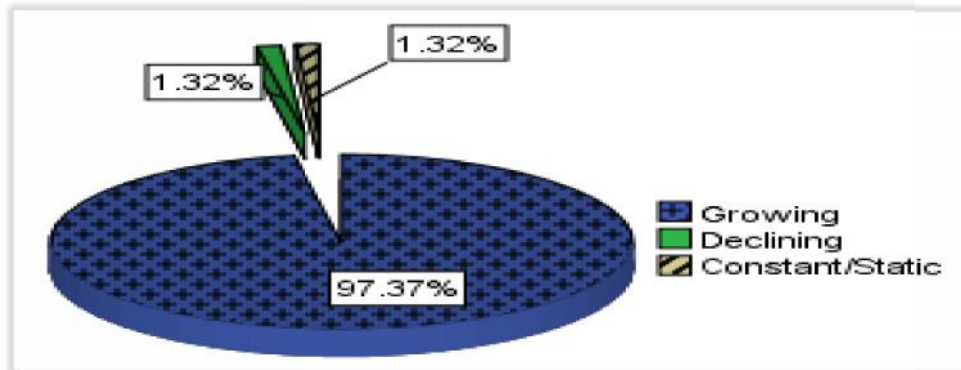
Figure 4.13: Asset trending of the factory in the last five years

4.5.3. Descriptive Statistics of Liberalization

The study itemized the descriptive statistics of liberalization. Table 4.8 shows the findings. From the table, 48.7% of the respondents said that liberalization has enhanced adoption of new technologies either to a large extent or to a very large extent, 57.9% said that either to a large extent or to a very large extent liberalization has led to improved quality of tea, 80.2% of the respondents said that due to liberalization there are more local and international players in the tea industry either to a large extent or to a very large extent.

Besides, 38.2% said that to a moderate extent liberalization has left local producers vulnerable, 47.4% said that liberalization has eased acquisition of firm inputs either to a large extent or to a very large extent, 71% said that liberalization has enhanced self-regulation/determination of tea growers/producers either to a large extent or to a very large extent, 79% said that liberalization has brought competition to the tea market either to a large extent or to a very large extent, Half of the respondents (50%) felt

81

that liberalization has opened new tea markets, 78.9% said that liberalization has opened more international markets either to a large extent or to a very large extent.

This finding clearly indicates that liberalization of the tea sector has opened up the industry to both local and international players and therefore made tea business truly global in nature. Besides, liberalization has brought in self-regulation among tea producers. This was the prime objective when the Government embarked on liberalization of the tea industry in 1999. This finding is in agreement with studies done in South Africa (Soderbom&Teal, 2001) and Kalegama (2010) where he noted that liberalization led to Kenya opening up new tea markets to Egypt, Sudan, Yemen and Somalia. It is evident that Kenya became very aggressive in search of new markets due to liberalization. This was the envisaged outcome by the liberalization and privatization strategy paper that was started by government.

Table 4.8: Descriptive Statistics of Liberalization

Statements	Not at all		Little extent		Moderate Extent		To a large extent		To a very large extent		Total %
	F	%	F	%	F	%	F	%	F	%	
Liberalization has enhanced adoption of new technologies	9	11.8	11	14.5	19	25	25	32.9	12	15.8	**100.0**
Liberalization has led to improved quality of tea	3	3.9	5	6.6	24	31.6	33	43.4	11	14.5	**100.0**
Due to liberalization there are more local and international players in the tea industry			2	2.6	13	17.1	34	44.7	27	35.5	**100.0**
Liberalization has left local producers vulnerable	6	7.9	10	13.2	29	38.2	24	31.6	7	9.2	**100.0**
Liberalization has eased acquisition of firm inputs	9	11.8	11	14.5	20	26.3	23	30.3	13	17.1	**100.0**
Liberalization has enhanced self-regulation/determination of tea growers/producers			2	2.6	20	26.3	41	53.9	13	17.1	**100.0**
Liberalization has brought competition to the tea market			2	2.6	14	18.4	48	63.2	12	15.8	**100.0**
Liberalization has opened new tea markets	2	2.6	10	13.2	26	34.2	27	35.5	11	14.5	**100.0**
Liberalization has opened more international markets			3	3.9	13	17.1	32	42.1	28	36.8	**100.0**
Averages	**5.8**	**7.6**	**6.2**	**8.2**	**19.8**	**26.2**	**31.9**	**42**	**14.9**	**19.6**	**100.0**

Key: F = Frequency, % = Percentage

Tea Prices since Liberalization of the Tea Sector

The study sought to find out if there was an increase in tea prices since liberalization of the tea sector.

From Figure 4.14, 73.68% confirmed that tea prices indeed increased while 26.32% thought otherwise.
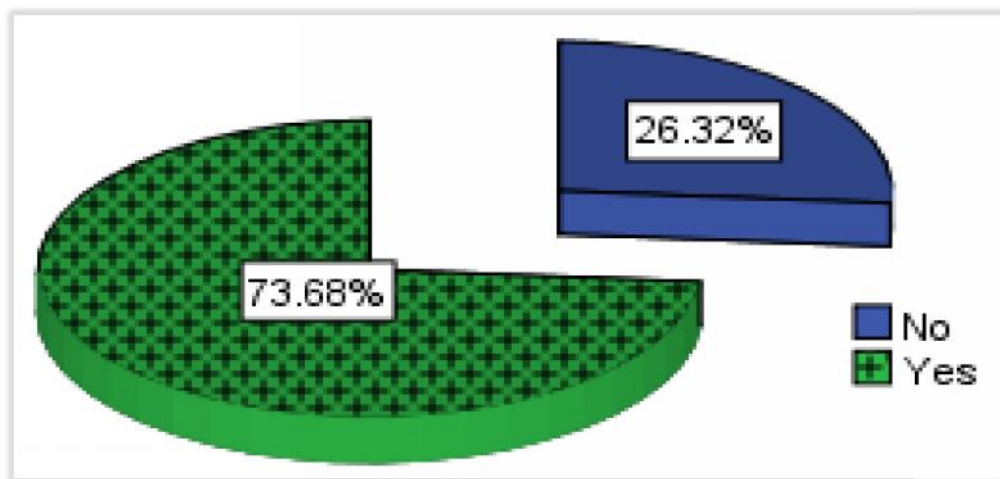
Figure 4.14: Tea Prices since Liberalization of the Tea Sector

The positive increase of tea prices realized especially the bonus (dividend payout) has been supported by the Table 4.9 below in which case almost all factories declared better bonus to the farmers immediately after liberalization of the tea sector in 1999 when in 2000, factories paid an average of Kshs. 21.99 per kg of tea delivered. The same trend is witnessed in the years that followed whencomparing the five years before and after liberalization of the tea sector, there was marked improvement in the bonus realized and paid to farmers.

Table 4.9: Tea Bonus figures 5 years before and after Liberalization in 1999

Factories					Performance year					
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Factory 1	6.4	8.18	11.23	14.8	10.79	21.85	14.94	11.77	11.35	10
Factory 2	7.35	9.94	12.17	18.58	14.23	24.42	18	14.55	15	15
Factory 3	8.4	9.68	11.04	16.98	14.35	24.07	20.5	13.5	13.7	12.7
Factory 4	5.75	7.82	8.8	15.93	10.7	23.8	16.4	13	14.3	13.3
Factory 5	7.94	10.45	11.79	17.66	13	23.39	19.8	12.25	12	12.05
Factory 6	6.85	11.21	12.07	18.71	14.46	23.1	16.49	11.15	12	13.35
Factory 7	7.36	10.33	12.24	17.84	14.94	23.7	17.75	12.5	14	13.15
Factory 8	6.4	9.73	10.25	20.06	17.86	25.91	22.04	13.31	14.3	15.25
Factory 9	6.4	9.73	10.16	18.56	14.85	24.46	22.18	14	15	15.3
Factory 10	9.73	10.29	11.87	20.17	15.85	24.96	19.9	14	14	12.8
Factory 11	10.89	10.28	13.52	20.39	18.88	27.08	20.92	13.8	16.7	16.9
	6.73	8.46	9.9	15.3	11.54	19.23	13.5	8.5	10.13	9.25
Factory 13	5	7.52	9	14	7.24	18	13.75	9.7	8.5	11
Factory 14	5.42	8.34	10.05	16.93	13.35	22.85	15.01	11.48	11	12.33
Factory 15	6.25	8.24	10.37	15.97	10.65	20.4	14.8	11.51	11.35	11.6
Factory 16	4.61	6.09	8.84	14.52	10.76	17.08	12.1	7	9	9.2
Factory 17	4.15	8.52	9.92	16.63	11.06	19.89	17.83	8.68	10.2	12.3
Factory 18	4.2	5.2	9.08	13	11.04	18.73	10.5	4	7.35	9.2
Factory 19	4.4	6.38	9.92	13.1	11.59	20.55	11.56	8.18	8.35	9.7
Factory 20	4.9	5	9.29	14.99	11.25	16.38	14	9.13	11.5	9.1
Average Performances	**6.46**	**8.57**	**10.58**	**16.71**	**12.92**	**21.99**	**16.60**	**11.10**	**11.99**	**12.17**

Source: KTDA

NB. The study did not capture comparative bonus figures of one of the factories under study because it was built after 2004. This therefore explains the twenty factories whose bonus data is captured.

4.5.4. Descriptive statistics of Technology

The study itemized the descriptive statistics of technology. The findings were presented in terms of frequencies and percentages as shown in Table 4.10. From the table, 36.8% of the respondents said that technology has improved quality of tea production to a moderate extent, 35.5% said that technology has led to development of new tea varieties

to a moderate extent, 47.4% said technology has improved quality of tea to a little extent or to no extent at all, 38.2% said that technology has improved market accessibility to a moderate extent.

Additionally, 46.1% said that technology had reduced wastage to a moderate extent, 44.7% of the respondent said that technology has led to new tea product development to a moderate extent, 55.2% said that technology has reduced the cost of tea production, 57.9% of the respondents said that technology has improved collection and weighing of tea either to a large extent or to a very large extent, 43.4% said that technology has improved the amount of tea production either to a large extent or to a very large extent, 42.1% said that technology has enhanced knowledge generation & sharing either to a large extent or to a very large extent.

Adoption of technology has led to cost of production reduced as well as improved collection and weighing of tea to the advantage of farmers. This finding is in agreement with studies done by Descanctis and Poole (1990) and Orlikowski (1992).

Table 4.10: Descriptive Statistics of Technology

Statements	Not at all		Little extent		Moderate Extent		To a large extent		To a very large extent		Total %
	F	%	F	%	F	%	F	%	F	%	
Technology has improved quality of tea production	7	9.2	16	21.1	28	36.8	20	26.3	5	6.6	**100.0**
Technology has led to development of new tea varieties	8	10.5	17	22.4	27	35.5	18	23.7	6	7.9	**100.0**
Technology has improved quality of tea	16	21.1	20	26.3	18	23.7	17	22.4	5	6.6	**100.0**
Technology has improved market accessibility	6	7.9	10	13.2	29	38.2	24	31.6	7	9.2	**100.0**
Technology has reduced wastage	5	6.6	17	22.4	35	46.1	16	21.1	3	3.9	**100.0**
Technology has led to new tea product development	7	9.2	18	23.7	34	44.7	17	22.4	2	2.6	**100.0**
Technology has reduced the cost of tea production	6	7.9	8	10.5	20	26.3	25	32.9	17	22.4	**100.0**
Technology has improved collection and weighing of tea	3	3.9	5	6.6	24	31.6	33	43.4	11	14.5	**100.0**
Technology has improved the amount of tea production	20	26.3	7	9.2	16	21.1	26	34.2	7	9.2	**100.0**
Technology has enhanced knowledge generation & sharing	12	15.8	11	14.5	21	27.6	21	27.6	11	14.5	**100.0**
Averages	**9**	**11.8**	**12.9**	**17**	**25.2**	**33.2**	**21.7**	**28.6**	**7.4**	**9.7**	**100**

Automation of Factory Production and Processing Systems

The study sought to find out of factory production and processing systems were automated. Figure 4.15 shows that 81.58% were in agreement that factory production and processing systems were automated while 18.42% said they were not automated.
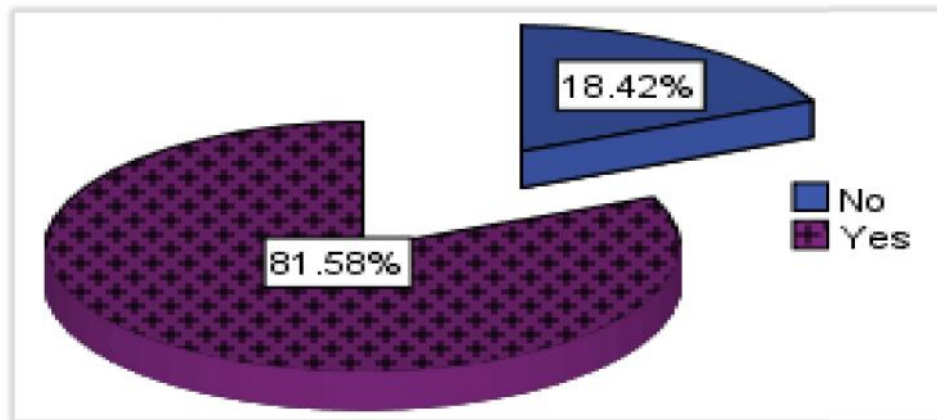
Figure 4.15: Automation of factory production and processing systems

Automation of Factory Weighing and Packaging systems

The research sought to find out if the factories weighing and packaging systems were automated. Figure 4.16 shows that 60.53% said no they were not while 39.47% said yes they were automated.
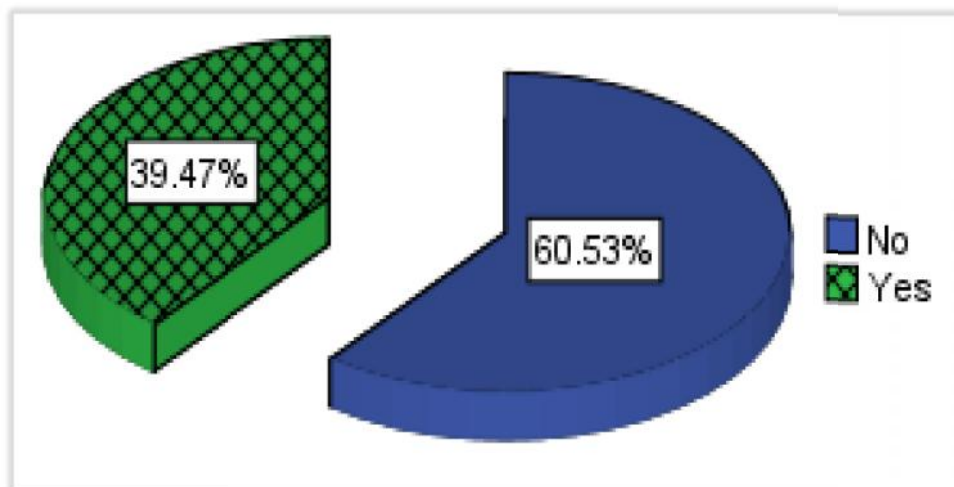
Figure 4.16: Automation of Factory weighing and Packaging Systems

4.5.5. Descriptive Analysis for Moderating Variable

The study itemized the descriptive statistics of government policy. The findings were presented in Table 4.11. From the table, 47.4% of the respondents either agreed or strongly agreed that government policy on technology influences tea export, 47.4% either agreed or strongly agreed that government foreign relations policy influences tea exports, 56.6% either agreed or strongly agreed that liberalization influences tea exports, 68.4% either agreed or strongly agreed that government incentives on exports influences tea export, 39.5% said they were not sure on government policy on agro-research influences tea export, 80.2% either agreed or strongly agreed that taxation policy influences tea exports, 77.6% either agreed or strongly agreed that government policy on international marketing influences tea exports.

From this study, it is clear that the Government's taxation policy on tea exports influences tea exports as well as incentives if they are put in place. This finding agrees very much with the effect of Ad valorem levy which greatly affects export performance (Figures 4.10 & 4.11).

Table 4.11: Descriptive Statistics of Government Policy

Statements	Strongly agree		Disagree		Not sure		Agree		Strongly agree		Total
	F	%	F	%	F	%	F	%	F	%	%
Government policy on technology influences tea export	9	11.8	11	14.5	20	26.3	24	31.6	12	15.8	**100.0**
Government foreign relations policy influences tea exports	10	13.2	11	14.5	19	25	23	30.3	13	17.1	**100.0**
Liberalization influences tea exports	3	3.9	5	6.6	25	32.9	32	42.1	11	14.5	**100.0**
Government incentives on exports influences tea export			2	2.6	22	28.9	39	51.3	13	17.1	**100.0**
Government policy on agro-research influences tea export	6	7.9	10	13.2	30	39.5	23	30.3	7	9.2	**100**
Taxation policy influences tea exports			2	2.6	13	17.1	39	51.3	22	28.9	**100.0**
Government policy on international marketing influences tea exports					17	22.4	39	51.3	20	26.3	**100.0**
Averages	**7**	**9.2**	**6.8**	**9**	**20.9**	**27.4**	**31.3**	**41.2**	**14**	**18.4**	**100.0**

Key: F = Frequency, % = Percentage

90

4.6. Correlation Analysis for Marketing Strategy and Export Performance

4.6.1. Scatter Plot of Marketing Strategy and Export Performance

A scatter plot in Figure 4.17 shows that there is a postive relationship between marketing strategy and export performance of factories managed by KTDA in Kenya. This implies that the more marketing is done, the higher the level export performance. This finding of the scatter plot essentially rejects the study hypothesis which is, there is a significant negative relationship between marketing strategy and export performance of KTDA managed factories in Kenya.
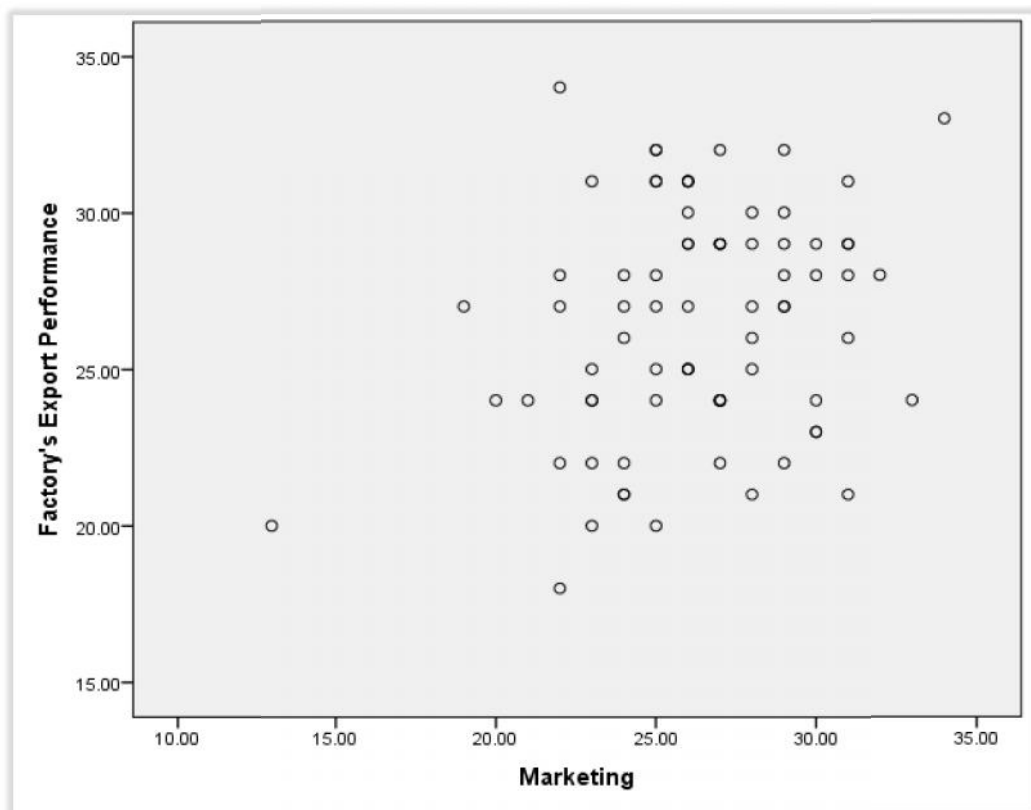
Figure 4.17: Scatter plot of Marketing Strategy and Export Performance

4.6.2. Pearson Correlation of Marketing Strategy and Export Performance

Pearson correlation was done on marketing strategy and export performance so as to determine the level of correlation between the two variables. Pearson Correlation was used because the relationship between the dependent and independent variables assume normality. The findings are as shown on Table 4.12. From the table, r = 0.260 and (P-value = 0.023) , implies that there is a significant positive relationship between Export Performance and Marketing Strategy while holding other factors constant.

This finding is supported by the research by Tea Board of Kenya 2012 where they indicate that 80% of Kenya's tea is sold through the Auction. This means that very little marketing is undertaken and therefore the low correlation value of 0.260 with export performance (Table 4.13). Despite the fact that marketing strategy is significant, it however goes to explain the country's low investment in the marketing of Kenya's tea. The positive correlation between marketing and export performance clearly leads to the rejection of the hypothesis in respect of marketing strategy which is there is a significant negative relationship between marketing strategy and export performance of KTDA managed factories in Kenya.

Equally, KTDA which is a corporate body has not invested in marketing of teas from the small scale tea sector in Kenya. KTDA controls 60% of Kenya's total tea production and 90% is sold through Mombasa Auction (KTDA 2012). The only reason why KTDA teas fetch a little bit more at the auction is because of the perceived quality of her teas (KTDA, 2012). For instance in 2011/2012 financial year, KTDA teas were sold at an average of USD 3.18 per kg while the Auction average was USD 2.74 per kg.

Table 4.12: Pearson Correlation of Marketing Strategy and Export Performance and

Correlations

		Factory's Export Performance	Marketing
Factory's Export Performance	Pearson Correlation	1	.260
	Sig. (2-tailed)		.023
	N	76	76
Marketing	Pearson Correlation	.260	1
	Sig. (2-tailed)	.023	
	N	76	76

4.6.3. Line of Best Fit of Marketing Strategy and Export Performance

Anderson *et al.* (2002), posits that, so as to determine how well the model fits the data in question, it is necessary to draw the line of best fit given that it is a key indicator of the predictive accuracy of the model. Figure 4.18, it is observed that there is some deviation away from the line of best fit but still the positive correlation between the export performance of the factories managed by KTDA in Kenya and Marketing strategy of the factory, is evident. From Table 4.12 above, with P-value of 0.23, the correlation between export performance and marketing strategy is 0.260.
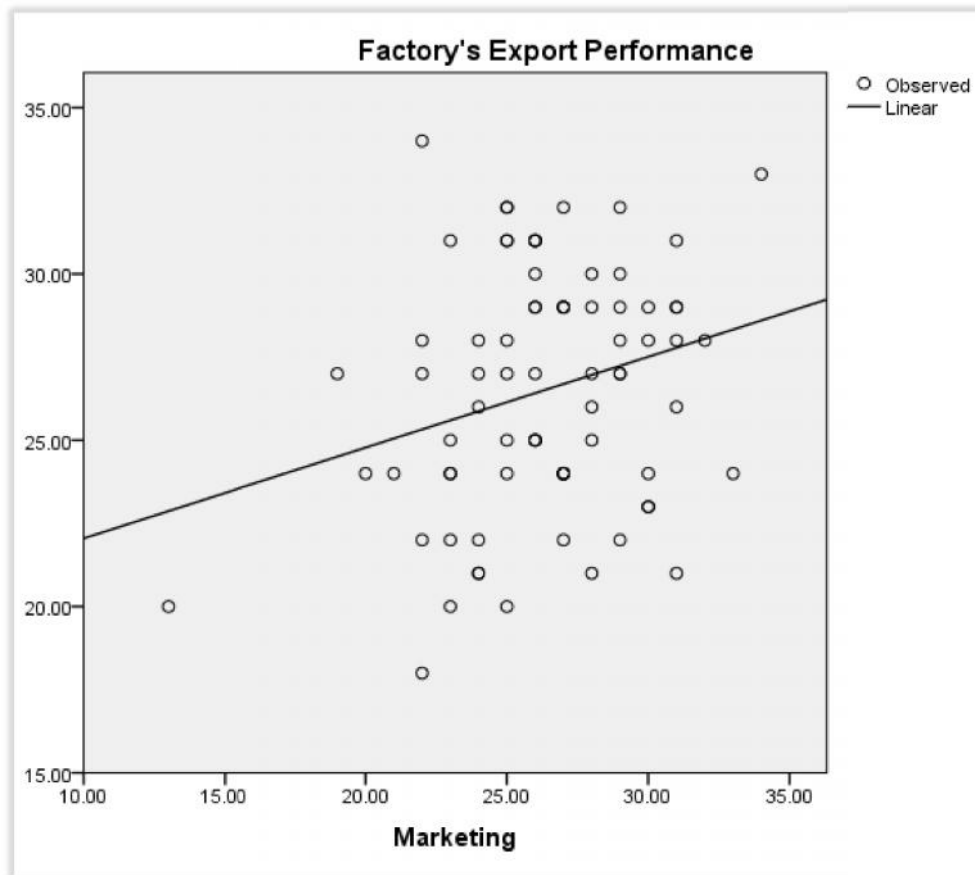
Figure 4.18: Line of Best Fit of Marketing Strategy and Export Performance

4.7. Correlation Analysis of Firm Size and Export Performance

4.7.1. Scatter Plot of Firm Size and Export Performance

A scatter plot in Figure 4.19 shows that there is a positive relationship between firm size and export performance of factories managed by KTDA in Kenya. This suggests that an improvement on the firm size will lead to a corresponding improvement on the factory's export performance.
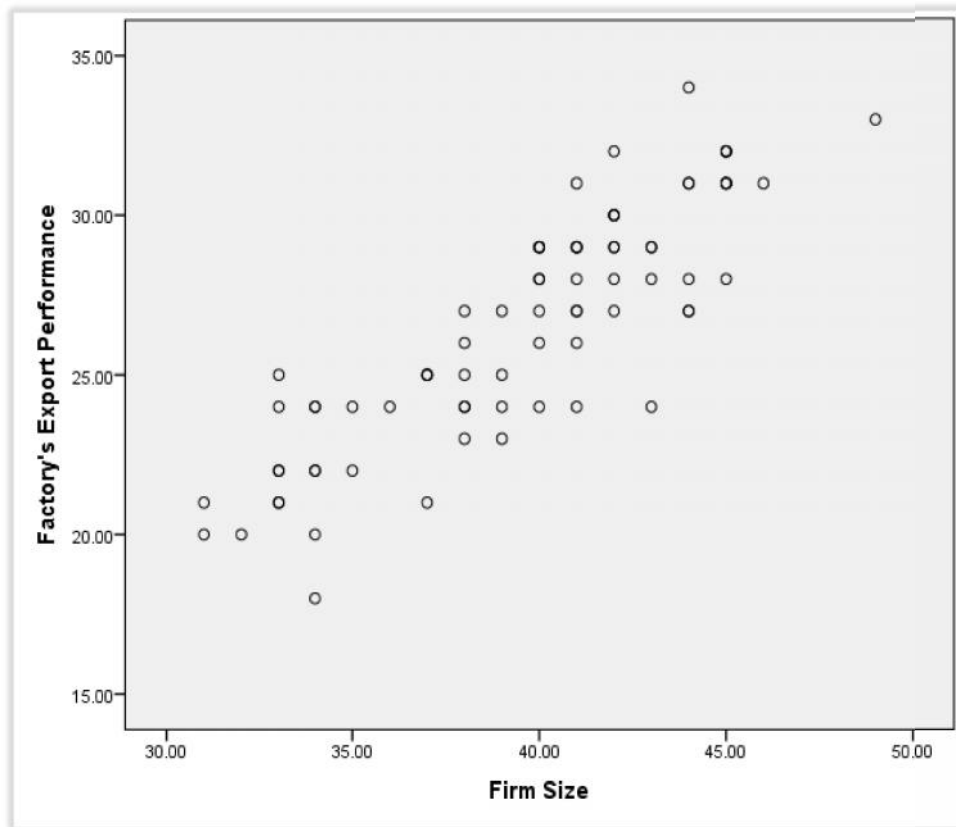
Figure 4.19: Scatter plot of Firm Size and Export Performance

4.7.2. Pearson Correlation of Firm Size and Export Performance

Pearson correlation coefficient was done on Factory's Export Performance and Firm Size, so as to determine the level of correlation between the two variables. The results are represented in Table 4.13. From the table, r = 0.863, which implies that Export Performance and Firm Size are highly correlated and the correlation coefficient is highly significant (P-value = 0.000 that is below the 0.05 threshold).

The scatter plot and the correlation coefficient between firm size and export performance both leads to the rejection of the hypothesis that there is a significant negative relationship between firm size and export performance of KTDA managed factories in Kenya.

Table 4.13: Pearson Correlation on Firm Size and Export Performance

		Factory's Export Performance	Firm Size
		Correlations	
Factory's Export Performance	Pearson Correlation	1	.863
	Sig. (2-tailed)		.000
	N	76	76
Firm Size	Pearson Correlation	.863	1
	Sig. (2-tailed)	.000	
	N	76	76

4.7.3. Line of Best Fit of Firm Size and Export Performance

In an attempt to determine how well the model fits the data in question, it was necessary to draw the line of best fit given that it is a key indicator of the predictive accuracy of the model (Anderson *et al.,* 2002). In Figure 4.20, it is observed that there is positive correlation between export performance of the factories managed by KTDA in Kenya and Firm Size.
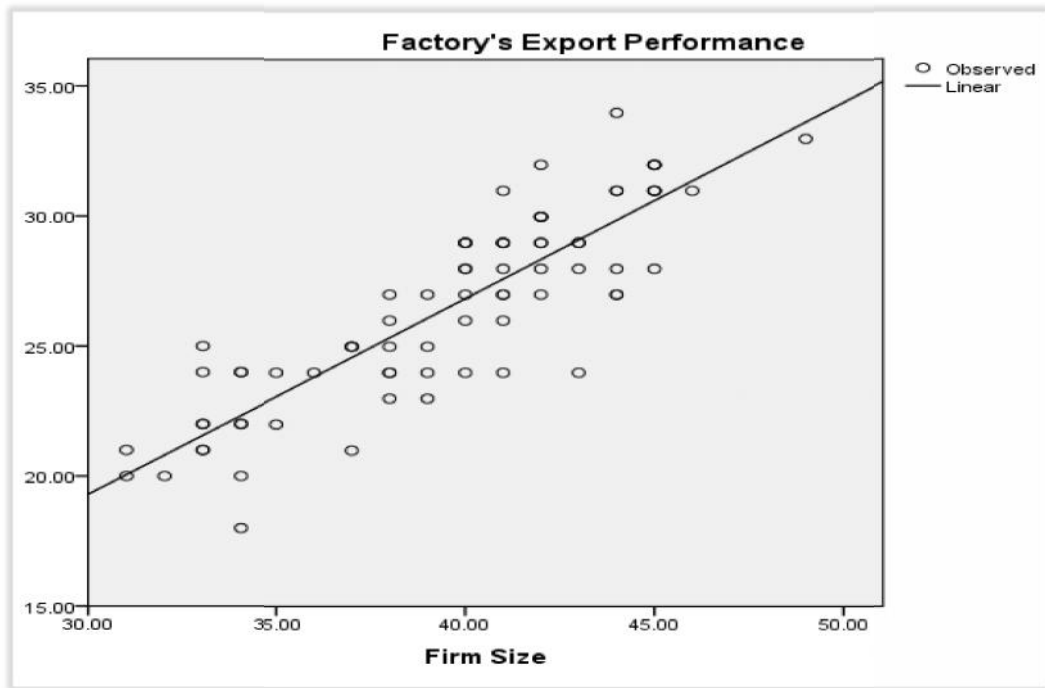
Figure 4.20: Line of Best Fit of Firm Size and Export Performance

4.8. Correlation Analysis of Liberalization and Export Performance

4.8.1. Scatter Plot of Liberalization and Export Performance

A scatter plot on liberalization and export performance shows that there is a positive relationship between liberalization and export performance of factories managed by KTDA in Kenya as shown in Figure 4.21. This indicates that a change in liberalization will have a corresponding positive change on export performance.
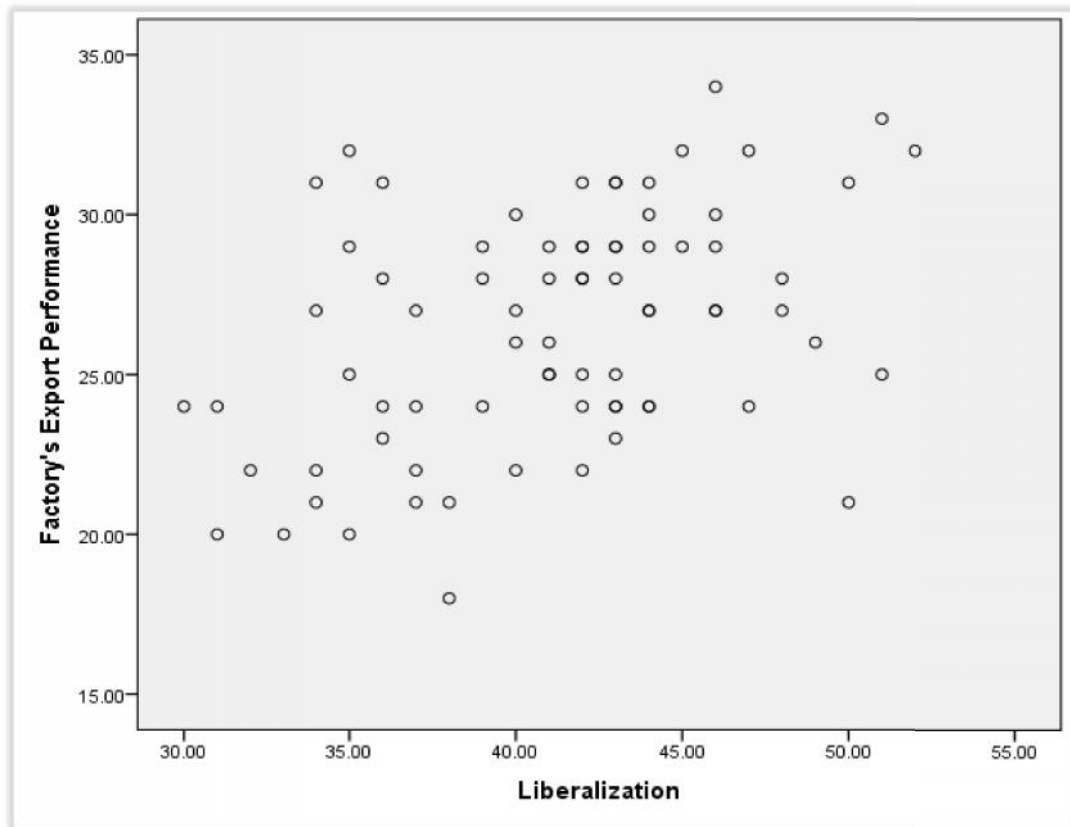
Figure 4.21: Scatter Plot of Liberalization and Factory's Export Performance

4.8.2. Pearson Correlation of Liberalization and Export Performance

Pearson correlation of liberalization and export performance indicated that there is a positive correlation between the two variables. The results are shown on Table 4.14. From the Table, $r = 0.426$, which implies that liberalization and export performance are correlated and the correlation coefficient is highly significant (P-value = 0.000 is below the 0.05 threshold). Both the scatter plot and correlation between liberalization and export performance clearly lead to the rejection of the hypothesis which is there is a significant negative relationship between liberalization and export performance of KTDA managed factories in Kenya.

Table 4.14: Pearson Correlation of Liberalization and Export Performance

		Factory's Export Performance	Liberalization
Correlations			
Factory's Export Performance	Pearson Correlation	1	.426
	Sig. (2-tailed)		.000
	N	76	76
Liberalization	Pearson Correlation	.426	1
	Sig. (2-tailed)	.000	
	N	76	76

4.8.3. Line of Best Fit of Liberalization and Factory's Export Performance

Anderson *et al.* (2002) argues that to determine how well the model fits the data in question, it is necessary to draw the line of best fit given that it is a key indicator of the predictive accuracy of the model. From Figure 4.22, it is observed that there is positive correlation between liberalization and export performance of KTDA managed factories in Kenya.
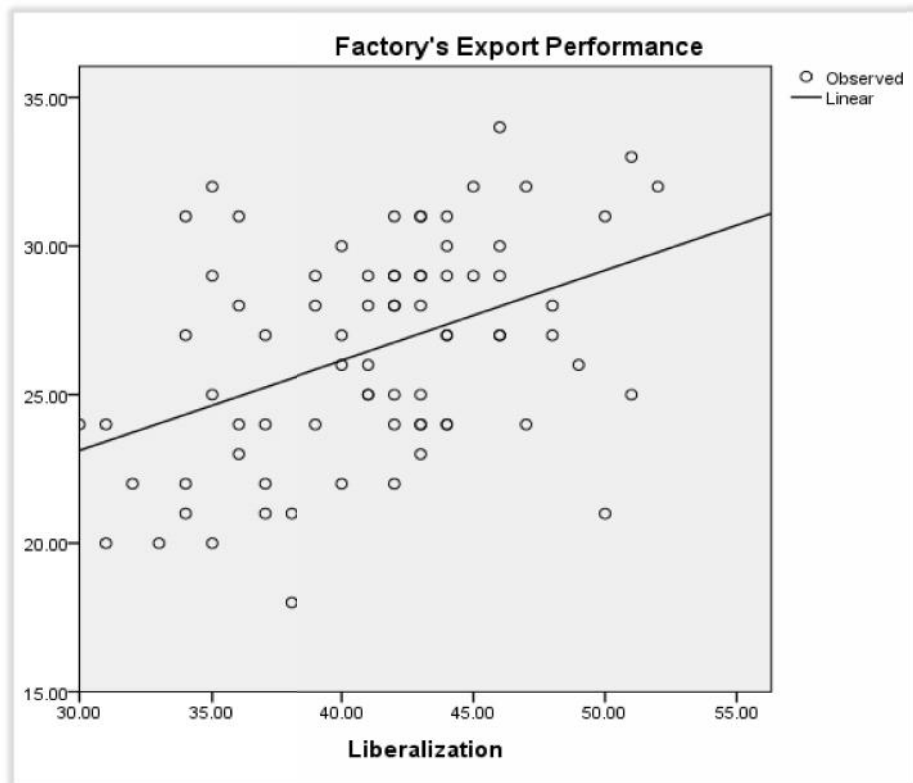
Figure 4.22: Line of Best Fit of Liberalization and Export Performance

4.9. Correlation Analysis of Technology and Export Performance

4.9.1. Scatter Plot of Technology and Export Performance

A scatter plot of technology and export performance shows that there is a positive relationship between technology and export performance of KTDA managed factories in Kenya as shown in Figure 4.23. This indicates that a change in technology will have a corresponding change on the factory's export performance.
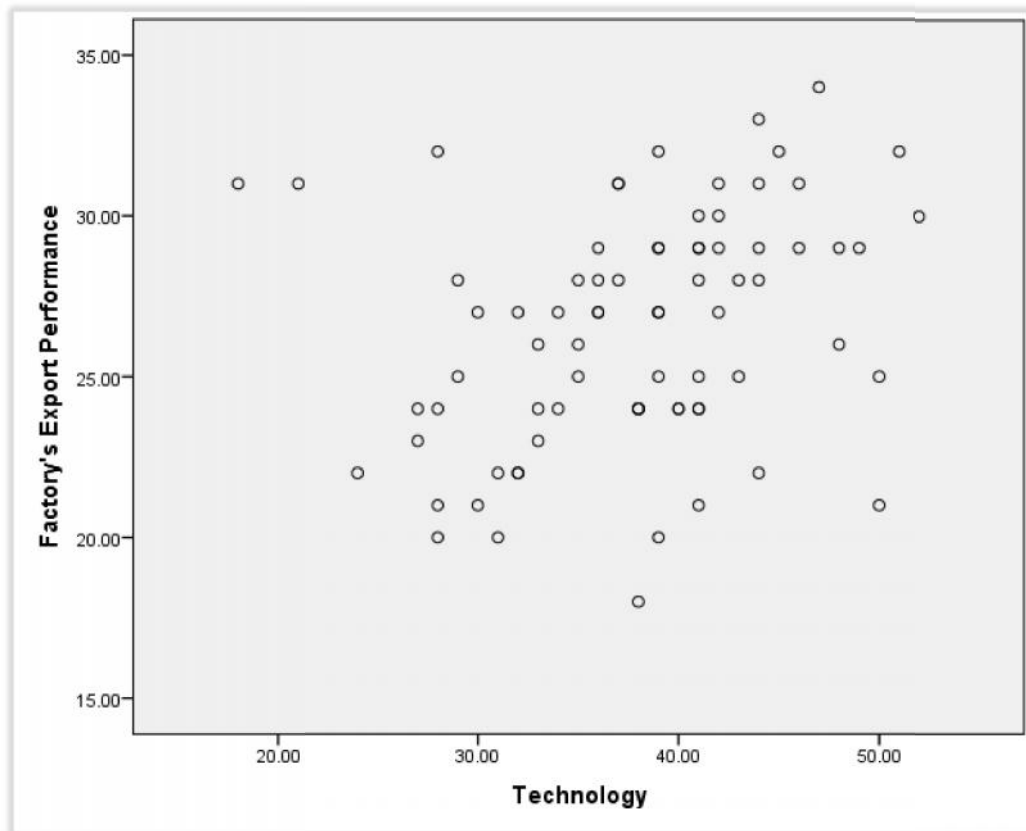
Figure 4.23: Scatter Plot of Technology and Export Performance

4.9.2. Pearson Correlation of Technology and Export Performance

Pearson's correlation of technology and export performance showed that there is a positive correlation between the two variables. The results are shown on Table 4.15. From the table, r = 0.298, which implies that Export Performance and Technology are positively correlated and the correlation coefficient is highly significant given that P-value = 0.009 which is below the 0.05 threshold.

Table 4.15: Pearson Correlation of Technology and Export Performance

Correlations		Factory's Export Performance	Technology
Export Performance	Pearson Correlation	1	.298
	Sig. (2-tailed)		.009
	N	76	76
Technology	Pearson Correlation	.298	1
	Sig. (2-tailed)	.009	
	N	76	76

4.9.3. Line of Best Fit of Technology and Export Performance

To determine how well the model fits the data in question, it is necessary to draw the line of best fit given that it is a key indicator of the predictive accuracy of the model (Anderson *et al.,* 2002). From Figure 4.24, it is observed that there is positive correlation between technology and export performance of KTDA managed factories in Kenya.

The scatter plot and correlation between technology and export performance confirms the rejection of the hypothesis which is there is a significant negative relationship between technology and export performance of KTDA managed factories in Kenya.
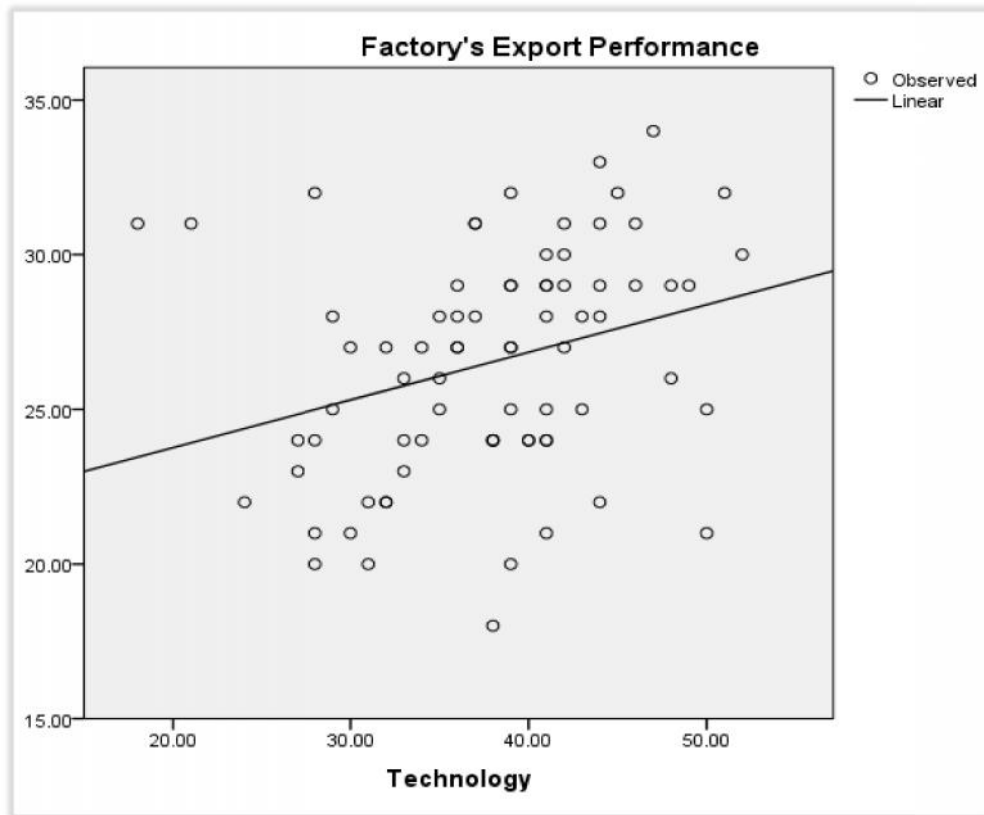
Figure 4.24: Line of Best Fit of Technology and Export Performance

4.10. Correlation Analysis of the Moderating Effect of government
Policy in the Relationship between the Dependent variable
and the Independent Variables

The study sought to find out if the moderating variable (government policy) had a moderating effect in the relationship between the dependent variable (Export Performance) and the independent variables (Marketing Strategy, Firm Size, Liberalization and Technology). Correlation analysis was done between the dependent

variable and the independent variables while controlling for the moderating variable (government policy). The findings were summarized in Table 4.16. The table shows that when government policy was controlled marketing strategy improved from $r = 0.260$ to $r = 0.262$, an improvement of 0.002. This indicates that government policy had a positive significant moderating effect ($p = .023$) on the relationship between the export performance and marketing strategy.

It is further observed that in the case of firm size, when government policy was controlled it reduced from 0.863 to 0.862, a reduction of 0.001 and it was significant ($p = .000$). The indication is that, government policy had a negative moderating effect on the relationship between factory export performance and firm size. Additionally, liberalization had its correlation coefficient reduced from $r = 0.426$ to 0.424, a reduction of 0.002 and it was significant ($p = .000$). This implied that government policy had a significant negative moderating effect on the relationship between export performance and liberalization.

In summary, the moderating effect of government policy on marketing strategy was positive while on firm size and liberalization, it was negative. However, government policy did not have any change on technology.

Table 4.16: Correlation analysis of Export Performance and the independent variables WhileGovernment Policy is uncontrolled and when it is controlled

		Export Performance (government policy controlled)	Export Performance (government policy uncontrolled)
Factory's Export Performance	Pearson Correlation	1.000	1
	Sig. (2-tailed)	.	
	N	0	76
Marketing Strategy	Pearson Correlation	.262	.260
	Sig. (2-tailed)	.023	.023
	N	73	76
Firm Size	Pearson Correlation	.862	.863
	Sig. (2-tailed)	.000	.000
	N	73	76
Liberalization	Pearson Correlation	.424	.426
	Sig. (2-tailed)	.000	.000
	N	73	76

	Pearson Correlation	.298	.298
Technology	Sig. (2-tailed)	.009	.009
	N	73	76

The independent variables were further ranked in terms of their correlation coefficient against the dependent variable. From Table 4.17, firm size ranked top with r = 0.863 while marketing strategy was the least with r = 0.260. This indicates that firm size had more impact on the dependent variable than other independent variables considered for this study.

Table 4.17: Ranking of independent variables in terms of their Coefficientofvariation,correlation coefficient and P-value

Independent Variable of V %	C	Pearson's Correlation Coefficient	P value
Firm 74.4	Size	.863	.000
Liberalization 18.1		.426	.000
Technology		.298	.009

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8.9

Marketing	.260	.023
6.8		

Key: C of V = Coefficient of Variation; % percentage

From the ranking above, Firm Size has both a higher coefficient of variation and correlation coefficient. This is because the larger the firm size the more economies of scale it enjoys, reduced costs and therefore better output (volumes) which ultimately positively affects export performance.

Liberalization is second in ranking and this is because of policy changes that come with Government allowing operations of entities in a free market economy. Besides, with Firm Size being a significant variable, KTDA management may adopt the policy of consolidation of the small farms in order to improve on volume of tea for export. Firm Size and Liberalization both explain 92.5% of the model. Technology has a better ranking than marketing because automation of the systems improves efficiency and turnaround time.

4.11. Regression Analysis

4.11.1.Regression Analysis of Marketing Strategy and Export Performance

Regression analysis of marketing strategy and export performance shows a relationship in which R^2 = 0.068 which means that 6.8% change in Factory's Export Performance can be explained by a corresponding unit change in the level of marketing as shown in Table 4.18. R^2 is small despite the model being significant, implying that there are other that explain export performance.

Marketing strategy has not been well utilized in the marketing of tea locally and internationally. Over 95% of Kenya's tea production is exported in bulk form which makes it a raw material for furtherprocessing (Tea Board of Kenya, 2012). This situation might explain the low contribution of marketing to the change in export performance.

Table 4.18: Model Summary of Marketing Strategy and Export Performance

					Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.260[a]	.068	.055	3.56199	.068	5.368	1	74	.023

a. Predictors: (Constant), Marketing Strategy

4.11.2. Regression Analysis of Firm Size and Export Performance

Regression analysis of firm size and export performance shows a relationship in which $R^2 = 0.744$ which means that 74.4% change in Export Performance can be explained by a corresponding unit change in the firm size as shown in Table 4.19.

Table 4.19: Model Summary of Firm Size and Export Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.863	.744	.740	1.86664

Predictors: (Constant), Firm Size

4.11.3. Regression Analysis of Liberalization and Export Performance

Regression analysis of liberalization and export performance shows a relationship in which $R^2 = .181$ which means that 18.1% change in Export Performance can be explained by a corresponding unit change in liberalization as shown in Table 4.20.

Table 4.20: Model Summary Liberalization and Export Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.426[a]	.181	.170	3.33812

a. Predictors: (Constant), Liberalization

4.11.4. Regression Analysis of Technology and Export Performance

Regression analysis of technology and export performance shows a positive relationship in which $R^2 = 0.089$ which means that 8.9% change in Export Performance can be explained by a corresponding unit change in level of Technology as shown in Table 4.21.

Table 4.21: Model Summary of Technology and Export Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.298[a]	.089	.077	3.52090

a. Predictors: (Constant), Technology

4.11.5. Regression Analysis to Test for Moderating Effect of Government Policy in the Relationship between Independent Variables and Export Performance

The study used regression method to find out if the moderating variable (Government Policy) had a significant moderating effect in the relationship between independent variables (Marketing, Firm Size, Liberalization and Technology) and the dependent variable (Export Performance). The results are summarized in Table 4.22, Table 4.31 and shown in appendix 9.

The findings showed that when government policy was introduced, $R^2 = 0.796$ remained the same. However, the adjusted R^2 decreased from 0.784 to 0.782 when government policy was introduced in the regression model. This implies that the goodness of fit changed with the introduction of government policy hence, it can be concluded that government policy has a negative moderating effect in the relationship between independent variables (Marketing, Firm Size, Liberalization and Technology) and the Dependent variable (Export Performance) of KTDA managed factories in Kenya.

Table 4.22: Model Summary of the Dependent Variable and the Independent Variables when the Moderating Variable is introduced

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.892[a]	.796	.784	1.70132
2	.892[b]	.796	.782	1.71174

a. Predictors: (Constant), Technology, Firm Size, Marketing, Liberalization

b. Predictors: (Constant), Technology, Firm Size, Marketing, Liberalization, Government Policy

4.12. Analysis of Variance (ANOVA) Test

4.12.1. ANOVA for Marketing Strategy and Export Performance

ANOVA results shown in Table 4.23 which indicates that F statistic = 5.368 and the P value = 0.023 hence the model can be described as being statistically significant considering the P value is less than 0.05.

Table 4.23: ANOVA for Marketing Strategy and Export Performance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	68.105	1	68.105	5.368	.023[b]
	Residual	938.895	74	12.688		

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	Total	1007.000	75		

a. Dependent Variable: Export Performance

b. Predictors: (Constant), Marketing Strategy

Beta coefficients results represented in Table 4.24 shows that for every unit of export performance, marketing contributes 0.273 which is statistically significant since P value of 0.023 is less than 0.05 threshold.

Table 4.24: Beta Coefficients of Marketing Strategy and Export Performance

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	**Std. Error**	**Beta**		
(Constant)	19.320	3.126		6.181	.000
Marketing	.273	.118	.260	2.317	.023

a. Dependent Variable: Export Performance

4.12.2. ANOVA for Firm Size and Export Performance

ANOVA results shown in Table 4.25 shows that F statistic = 215.008 and the P value = .000 hence the model can be described as being statistically significant considering that the P value is less than 0.05.

Table 4.25: ANOVA for Firm Size and Export Performance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	749.160	1	749.160	215.008	.000[b]
	Residual	257.840	74	3.484		
	Total	1007.000	75			

a. Dependent Variable: Factory's Export Performance

b. Predictors: (Constant), Firm Size

Beta coefficients output shown in Table 4.26 shows that for every unit of export performance, firm size contributes 0.755 which is statistically significant since P value of .000 is less than 0.05 threshold.

Table 4.26: Beta Coefficients of Firm Size and Export Performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.345	2.047		-1.635	.106
	Firm Size	.755	.051	.863	14.663	.000

a. Dependent Variable: Export Performance

4.12.3. ANOVA for Liberalization and Export Performance

ANOVA results shown in Table 4.27 shows that F statistic = 16.370 and the P value = .000 hence the model can be described as being statistically significant considering the P value is less than 0.05.

Table 4.27: ANOVA for Liberalization and Export Performance

$ANOVA^a$

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	182.414	1	182.414	16.370	$.000^b$
1	Residual	824.586	74	11.143		
	Total	1007.000	75			

a. Dependent Variable: Export Performance

b. Predictors: (Constant), Liberalization

Beta coefficients output shown in Table 4.28 shows that for every unit of factory's export performance, liberalization contributes 0.303 which is statistically significant since P value of .000 is less than 0.05 threshold.

Table 4.28: Beta Coefficients of Liberalization and Export Performance

$Coefficients^a$

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

		14.022	3.108		4.512	.000
1	(Constant)					
	Liberalization	.303	.075	.426	4.046	.000

a. Dependent Variable: Export Performance

4.12.4. ANOVA for Technology and Export Performance

ANOVA results shown in Table 4.29 shows that F statistic = 7.231 and the P value = 0.009 hence the model can be described as being statistically significant considering the P value is less than 0.05.

Table 4.29: ANOVA for Technology and Export Performance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	89.640	1	89.640	7.231	.009[b]
1	Residual	917.360	74	12.397		
	Total	**1007.000**	**75**			

a. Dependent Variable: Export Performance

b. Predictors: (Constant), Technology

Beta coefficients shown in Table 4.30 indicate that for every unit of export performance, technology contributes 0.154 which is statistically significant since P value of 0.009 is less than 0.05.

Table 4.30: Beta Coefficients of Technology and Export Performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.687	2.199		9.406	.000
	Technology	.154	.057	.298	2.689	.009

a. Dependent Variable: Export Performance

4.12.5. Test for Moderating Variable

The moderating variable of Government Policy was tested against the independent variables and the dependent variable using analysis of variance. ANOVA test for the moderating variable on the independent variables and dependent variable showed that the P-value = .000 which was less than 0.05. This implies the rejection of the hypothesis that, here is a negative moderating relationship between government policy and determinants of export performance of KTDA managed factories in Kenya.

Table 4.31: ANOVA for Moderating Variable on dependent variable and the independent variables

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	801.491	4	200.373	69.226	.000[b]
1	Residual	205.509	71	2.894		
	Total	1007.000	75			
	Regression	801.896	5	160.379	54.736	.000[c]
2	Residual	205.104	70	2.930		
	Total	1007.000	75			

a. Dependent Variable: Export Performance

b. Predictors: (Constant), Technology, Firm Size, Marketing, Liberalization

c. Predictors: (Constant), Technology, Firm Size, Marketing, Liberalization, Government Policy

The beta coefficients output table showed a significant change in the beta coefficients before and after the introduction of the moderating variable (Government Policy) as shown in Table 4.31. Given that the P-value is 0.000, the model is considered to be statistically significant and the change in adjusted R^2 after the introduction of the moderating variable from 0.784 to 0.782 as shown in Table 4.23 can be explained by significant effect of the moderating variable. This negative effect at this level leads to accepting the hypothesis which is there is a significant negative moderating relationship between government policy and export performance of KTDA managed factories in Kenya.

4.13. Optimal Analysis and Model fitting

Models were fitted both before and after the moderating variable was introduced. Both models are as shown. The first model (i) is without government policy and in the second

model (ii), government policy is introduced. The fact that the standardized coefficients are different in both models shows that government policy has a moderating effect on all the independent variables. However, the moderating effect is not significant given that p = .711 way above the threshold of .005. Further, marketing strategy and liberalization contributes negatively in model but their contributions are not significant (p values are > 0.005: MS=.0.159, L=0.402) as shown in Appendix 10.

$$Y_i = -4.876 - 0.099(X_1) + 0.785(X_2) - 0.053(X_3) + 0.135(X_4) \text{ .... } (i)$$

$$Y_i = -5.412 - 0.102(X_1) + 0.786X_2 - 0.051X_3 + 0.135X_4 + 0.017X_5 \text{ .... } (ii)$$

Using Variables in this study where,

EP =Export Performance

MS =Marketing Strategy

FS =Firm Size

L = Liberalization

T =Technology

GP = Government Policy

$$EP_i = -4.876 - 0.099(MS_1) + 0.785(FS_2) - 0.053(L_3) + 0.135(T_4) \text{ .... } (i)$$

$$EP_i = -5.412 - 0.102(MS_1) + 0.786(FS_2) - 0.051(L_3) + 0.135(T_4) + 0.017(GP_5) \text{ -....} (ii)$$

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This study sought to establish the determinants of export performance of Kenya Tea Development Agency managed factories in Kenya. This chapter presents the summary of major findings of the study. The methods of data collection and analysis have been summarized. Besides, the research objectives of the study and their findings have been enumerated. Finally areas of further research have been recommended.

5.2. Summary of the Major Findings

5.2.1. The effect of marketing strategy on export performance of KTDA managed factories in Kenya

The study found out that the main market for KTDA tea is external as indicated by 89.5% of the respondents that most of its tea is sold at the international markets. This result compares with tea industry information where Kenya sells 95% of the total production to the international markets (Tea Board of Kenya, 2012). Besides, 93.42% indicated that small scale tea farmers face challenges ranging from fluctuating international market prices, climatic changes, buyer driven tea pricing, presence of middle men and lack of product diversification or value addition. The study sought to find out the effect of ad valorem levy introduced by government to which 76.3% of the respondents affirmed that it affected export performance negatively.

The study found out that there is a positive correlation between marketing strategy and export performance with r =0.260 and the variable is considered statistically significant with F statistic of 5.368 and p value of 0.023 which is less than the threshold of 0.05. About 80% of KTDA tea is sold at Mombasa auction where it offers a chance for

competition and therefore better prices. In 2011/2012, KTDA teas fetched better prices on average price of USD 3.18 per kg while the Mombasa average price was USD 2.74 (KTDA 2012). KTDA does not sell her teas through the E-marketing platform and this could be among the reasons why the contribution of marketing in export performance is minimal.It also explains that promotion of tea by Tea Board of Kenya is not prioritized as does competitors like Sri Lanka and India. This situation is likely to worsen given that the Government has wound up Tea Board of Kenya and replacing it with a Tea Directorate department in the Ministry of agriculture.

KTDA's marketing strategy also relied on long standing and established relationship with buyers. This together with continuous introduction of new tea varieties like white tea, green tea and purple tea and investment product development explains the export performance of KTDA managed factories. This dependence on trusted tea buyers and product development explains better and stable prices for KTDA factories.

This finding supports the objective of the study with regard to marketing strategy. This is also supported by the Product Life Cycle theory especially at growth phase when brand loyalty, stable supply chain and distribution channels are added to support export performance of factories. Equally, Uppsala model supports export performance.

5.2.2. The effect of firm size on export performance of KTDA managed factories in Kenya

The study found out that the main elements of firm size are volume of production, quantity of made tea, number of tea buying centres, number of suppliers and number of production lines in the factory. Assets in a span of five years showed an upward trending meaning growth of the factory.

It was found out that there is a high correlation of 0.863 between firm size and export performance. The regression analysis shows the $R^2 = 0.744$ meaning that 74.4% change in export performance can be explained by corresponding unit change in firm size (Table 4.15). The same results is replicated using ANOVA in which for every unit of

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export performance, firm size contributes 0.755 and is statistically significant since p value is 0.000.

A number of studies have confirmed this finding as they have established a positive relationship between firm size and export performance (Cavusgil and Naor, 1987, Culpan, 1989). This finding supports the objective of the study on effect of firm size on export performance. Though Driscoll model treated firm size as a moderating variable, this variable has been found to be a strong variable in the study. It explains 74.4% in export performance which is much higher than the other three variables in the study.

Geographical location of tea factories was found to have a bearing in the export performance given that KTDA factories that are located in the East of the Rift Valley and are around Mount Kenya region had better prices that those found in the west of Rift valley. The explanation given was that teas found in this region were of better quality. Table 4.9 shows that Imenti tea factory had better price than Chebut tea factory before and after liberalization.

5.2.3. The Effect of Liberalization on Export Performance of KTDA Managed Factories in Kenya

The study found out that liberalization led to improved quality of tea while 80.2% of the respondents indicated that it opened up the local market to competition from international competitors. Acquisition of firm inputs during the era of liberalization had easedand that it led to opening up of more international markets

The study found out that tea prices had increased since liberalization with 73.68% affirming that prices had indeed increased. This variable had a correlation of r = 0.426 and is significant with a P value of .000. The same result is confirmed by ANOVA with F statistic of 16.37 and p value of 0.000. The beta coefficient of liberalization is 0.303 and is statistically significant with p value of 0.000.

This finding is consistent with studies done in Bangladesh by Hoque and Yusop (2012) where they found out that liberalization has a statistically significant impact on export performance. This finding is also supported by the Computable General Equilibrium (CGE) model in which liberalization actually has an economic effect on the tea sector including efficiency and increased exports of tea to international markets.

Liberalization of the tea sector brought in the element of competition in the tea sector. This explains the better quality of KTDA teas that fetched better prices at the auction. Given that KTDA was no longer a government parastatal, it had to go out and market her teas. Table 4.9 shows that KTDA realized better prices generally after liberalization of the tea sector in 2000.

5.2.4. The Effect of Technology on Export Performance of KTDA Managed Factories in Kenya

The study found out that adoption of technology led to improved quality of tea, the development of new tea varieties, and reduction of waste as well as led to reduced cost of production. Besides, 57.9% of the respondents affirmed that technology had led to improved collection and weighing of tea while 81.5% indicated that factory production and processing systems were automated.

There is a positive correlation between technology and export performance with r = 0.298 and a P value of 0.009. R^2 =0.089 meaning that 8.9% change in the export performance can be explained by a corresponding unit change in technology. The same result is confirmed by ANOVA with F statistic of 7.231 and p value of 0.009 hence the model is statistically significant. The beta coefficient of technology is 0.154 which is still statistically significant with p value of 0.009.

Most empirical studies have established a positive relationship between technology and propensity to export (Aaby& Slater, 1989). This is consistent with the findings of this study in which technology has a positive relationship with export performance. Automation of tea processing led to high and tea quality as there or minimal no human

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contact with the product. Besides, a regulated and automated processing system mean uniformity of tea quality leading to better prices at the auction.

This finding which confirms a positive relationship between technology and export performance has been supported by other studies that found out that firms with superior technological capability can secure greater efficiency gains by pioneering process innovations and that can achieve higher differentiation by innovating products in response to the changing market environment (Tsai, 2004). Moreover, technological capability plays an outstanding role in ensuring firms achieve a higher level of international performance and compete successfully in foreign markets (Flor&Oltra, 2005; Guifu&Hongjia, 2009).

5.2.5. The moderating effect of government policy on the determinants of export performance of KTDA

The study found out that government policy has an impact on export performance with 80.2% of the respondents affirming that the government's taxation policy influences the export of tea. This compares with the results obtained when the respondents were interviewed on the effect of ad valorem on tea exports where 76.3% indicated that it had a negative effect on tea exports.

The introduction of the moderating variable in the model indicates that it has an effect on the independent variables. Though R^2 =0.796 remained the same, the adjusted R^2 decreased from 0.784 to 0.782 (Table 4.23) meaning that government policy has a negative moderating effect on the relationship between independent variables and dependent variable. This finding is supported by the fact that in the 1st sale number 9 of 1s March 2012 immediately after the introduction of Ad valorem levy, KTDA prices plummeted by 3 US cents while tea prices for regional countries at the Mombasa auction increased by 22 US cents per kilogramme. (KTDA, 2012).

5.3 Conclusion

Despite the many studies devoted to the determinants of export performance, a comprehensive theory that explains export performance is yet to be developed. This makes export performance a contentious field in international marketing (Kasikeas, Leonidou and Morgan, 2000). This is confirmed by this study which had to incorporate a number of theories to try to explain export performance. The importance of international business should make researchers dig deeper in this area.

The study found out that Kenya's tea is not performing well internationally because there is very low product diversification and value addition compared to competitors. Besides, the introduction of ad valorem levy has makes Krnya our tea expensive in the international market thus limiting its profitability from exports. KTDA exports 89.5 % of her total tea production and therefore it is at the mercy of international players in the event there are low prices as a result of overproduction globally. To improve export performance of KTDA tea, the government must take deliberate steps to increase value addition, remove ad valorem levy and embark on promotion of tea in key destination markets.

Based on the study, firm size explains 74.4% of the relationship with export performance followed by liberalization at 18%, technology at 8.9% and marketing strategy at 6.8% (Table 4.32). Both marketing strategy and liberalization have negative beta coefficients in the relationship while firm size and technology have positive beta coefficients in the relationship with export performance (Appendix 10). The sign of the coefficients tells us how one variable changes with respect to another. For the negative coefficients of marketing and liberalization, it means that 1 unit positive standard deviation change in these variables is expected to result in a negative beta coefficient change in export performance.

5.4 Recommendations

Based on the findings of the study, the following recommendations can be made:-

1. The study has shown that marketing strategy, firm size, liberalization and technology affect export performance of KTDA managed factories in Kenya. Given that KTDA is the premier organization in the country that manages the small scale tea sector, the government must move with speed to address negative factors that affect it as the same effect is felt by farmers. For instance, ad valorem levy which is a sales tax makes Kenyan tea expensive to buyers thus making buyers seek cheaper teas from competitors. The Government should review this levy with a view to abolishing it altogether and devise alternative taxation measures of raising revenue without necessarily directly taxing tea sales which in essence is a direct cost to the buyer.

2. From the study, a large portion of the total tea produced by KTDA managed factories in Kenya is sold in the international markets and only a little percentage is sold locally. There is need for the government to develop the local market through marketing and promotion as well as remove taxes to make tea drinking a cheaper beverage as this will reduce dependence on international markets. This poorly compares to competitors like India and Sri Lanka who consume their tea thus providing alternative market. Government should find ways of encouraging Kenyan citizens to drink tea including reducing taxes levied to make it cheaper, besides adopting a deliberate promotion strategy.

3. The study also found out that there is lack of product diversification and value addition in the small scale tea sector. There is need for government to invest more on value addition as a means of increasing our return on investment. Government should invest more on value addition of tea in order for Kenyan to compete favorably in the world market.

5.5 Proposed Areas for Further Research

Tea growing and export is critical in the global business. There is need to undertake a comparative study in major tea growing countries of Sri Lanka, India and China which compete with Kenya. This will help us understand and benchmark the marketing strategies that are in place and whether the industry should be liberalized and left in the hands of the small scale industries.

In order to get the best in in the export business, there is need to undertake an in-depth study on commodity pricing of tea so as to come up with the best tea prices for Kenyan teas internationally.

Firm size was found to positively affect export performance. There is need for a study to understand if current rapid expansion is really needed in putting up new factories as opposed to expanding the current and operational factories as to reap on economies of scale and effectively utilize technology in automating factory operations and utilizing the existing staff that otherwise might be idle.Finally, a similar study could be done in a different agro based-industry to test the effect of these variableson export performance other agro products.

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APPENDICES

Appendix 1: Introduction Letter

Dear Respondent,

I am a PhD student at Jomo Kenyatta University of Agriculture and Technology carrying out a research on "**Determinants of Export Performance of KTDA Managed Factories in Kenya**" You have been selected together with others to participate in this research. Please be assured that any information collected through this questionnaire is confidential and will be used for research purposes only. You are kindly requested not to write your name anywhere on the questionnaire.

Yours Sincerely

Ibrahim Moiro Omari

Appendix . 2 Questionnaire

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 - 2years ( )   2 - 4 years ( )   5 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: Marketing Strategy

7. To what extent do the following statements apply to your factory?
   Please tick as appropriate in the corresponding box? Use a scale of 1-
   5 where 1 = Not at all, 2 = Little extent, 3 = Moderate extent, 4 = To
   a large extent and 5 = A very large extent

	Statements	1	2	3	4	5

A	Most tea is sold at international markets					
B	Factory has invested in E-marketing					
C	Market tea indirectly to the international market through agents					
E	There are clear channels of distribution of tea					

Are there any marketing challenges facing small scale tea farmers in Kenya?

    a) Yes

    b) No

8. If yes, which ones?

----

9. Do you subscribe to any local and international standards?

    a) Yes

    b) No

10. If yes, which ones?

    a) Local : Kenya Bureau of Standards, Kephis,

    b) International: ISO, Fairtrade, RA, GMP & ETP

11. Has advalorem levy affected tea exports and to what extent?

SECTION C; Firm Size

12. Please rate the following statements in order of 1 - 5 as they relate to the size of your factory. Where; **1= strongly disagree, 2 = disagree, 3 = not sure, 4 = agree and 5= strongly agree.**

	Statements	1	2	3	4	5
A	Number of tea buying centres of the factory					
B	Average yearly tea production					
C	Number of employees of the factory					
D	Geographical area					
E	Quantity of made teas					
F	Number of green leaf collection vehicles					
G	Number of suppliers					
H	Average yearly sales					
I	Number production lines					

13. What is the number of staff in the factory?

    a. Below 50

    b. 50-100

    c. 100-150

    d. Over 150

14. What is the asset trending of the factory in the last five years?

    a. Growing

b. Declining

c. Constant

SECTION D; Liberalization

15. To what extent do the following statements apply to your factory? Please tick as appropriate in the corresponding box? Use a scale of 1-5 where 1 = Not at all, 2 = Little extent, 3 = Moderate extent, 4 = To a large extent and 5 = A very large extent

	Statements	1	2	3	4	5
A	Liberalization has opened new tea markets					
B	Due to liberalization there are more local and international players in the tea industry					
C	Liberalization has brought competition to the tea market					
D	Liberalization has opened more international markets					
E	Liberalization has enhanced self-regulation/determination of tea growers/producers					
F	Liberalization has eased acquisition of firm inputs					
G	Liberalization has enhanced adoption of new technologies					

		1	2	3	4	5
H	Liberalization has led to improved quality of tea					

16. Has tea prices increased since liberalization of the tea sector?

    a) Yes

    b) No

17. Kindly attach prices of tea before and after liberalization including the bonuses realized

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SECTION E;Technology

18. To what extent do the following statements apply to your factory? Please tick as appropriate in the corresponding box? Use a scale of 1-5 where 1 = Not at all, 2 = Little extent, 3 = Moderate extent, 4 = To a large extent and 5 = A very large extent

	Statements	**1**	**2**	**3**	**4**	**5**
A	Technology has improved quality of tea production					

B	Technology has reduced wastage					
C	Technology has improved market accessibility					
D	Technology has improved collection and weighing of tea					
E	Technology has led to development of new tea varieties					
F	Technology has led to new tea product development					
G	Technology has improved quality of tea					
H	Technology has enhanced knowledge generation & sharing					
I	Technology has improved the amount of tea production					

19. Are factory production and processing systems automated?

    a) Yes

    b) No

20. Is weighing and packaging of tea automated?

    a) Yes

    b) No

SECTION F; Government Policy

21. Please rate the following statements in order of 1 - 5 as they relate to your factory. Where; **1= strongly disagree, 2 = disagree, 3 = not sure, 4 = agree and 5= strongly agree.**

	Statements	**1**	**2**	**3**	**4**	**5**
A	Government policy on international marketing influences tea exports					
B	Taxation policy influences tea exports					
C	Government incentives on exports influences tea export					
D	Government foreign relations policy influences tea exports					
E	Government policy on technology influences tea export					
F	Government policy on agro-research influences tea export					
G	Government policy influences tea exports					

SECTION G; Export Performance

22. How can you rate the export performance of your factory using the following proposed performance indicators? Please tick as appropriate in a corresponding box? Use a scale of 1-5 where 1 = poor, 2 = Fair 3 = Average 4 = Good and 5 =   Very good

	Statements	**1**	**2**	**3**	**4**	**5**
A	Internationals market share					
B	Number of international markets					

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C	Volume of sales					
D	Dividend payout (Bonus)					

Appendix 3: Factor Analysis for Marketing Strategy

Component Matrix

	Component	Dropped factors
	1	
Our factory has invested in E-Marketing	.745	
We make our tea directly to the international market	.670	
Most of our tea is sold at local markets	.658	
We market our tea indirectly to the international market through the agents	.629	
Most of our tea is sold at international markets	.601	
There are clear channels of distribution of our tea	.590	
We use market segmentation strategy	.244	Dropped

Extraction Method: Principal Component Analysis.

1 component extracted.

Appendix 4: Factor Analysis for Firm Size

Component Matrix

	Component	Dropped factors
	1	
Average yearly tea production	.791	
Quantity of made teas	.736	
Number of tea buying centers of the factory	.693	
Number of green leaf collection vehicles	.678	
Geographical area	.595	
Number of employees of the factory	.538	
Number of suppliers	.453	
Average yearly sales	.420	
Number of production lines	.395	
Number of tea growers of the factory	.134	Dropped

Extraction Method: Principal Component Analysis.

1 component extracted

Appendix 5: Factor Analysis for Liberalization

Component Matrix

	Component 1	Dropped factors
Liberalization has enhanced adoption of new technologies	.740	
Liberalization has led to improved quality of tea	.632	
Due to liberalization there are more local and international players in the tea industry	.628	
Liberalization has left local producers vulnerable	.618	
Liberalization has eased acquisition of firm inputs	.574	
Liberalization has enhanced self-regulation/determination of tea growers/producers	.570	
Liberalization has brought competition to the tea market	.505	
Liberalization has opened new tea markets	.430	
Liberalization has opened more international markets	.405	
Liberalization has resulted in quality consciousness in international market	.196	Dropped
Technological liberalization has influenced production	.060	Dropped

Extraction Method: Principal Component Analysis.

1 component extracted.

Appendix 6: Factor Analysis for Technology

Component Matrix

	Component 1	Dropped factors
Technology has improved quality of tea production	.812	
Technology has led to development of new tea varieties	.812	
Technology has improved quality of tea	.740	
Technology has improved market accessibility	.694	
Technology has reduced wastage	.630	
Technology has led to new tea product development	.630	
Technology has reduced the cost of tea production	.492	
Technology has improved collection and weighing of tea	.484	
Technology has improved the amount of tea production	.424	
Technology has enhanced knowledge generation & sharing	.369	
Technology has enhanced tea marketing in the international market	.332	Dropped
Technology has improved sorting and grading of tea	-.044	Dropped

Extraction Method: Principal Component Analysis.

1 component extracted.

Appendix 7: Factor Analysis for Government Policy

Component Matrix

	Component	Dropped factors
	1	
Government policy on technology influences tea export	.751	
Government foreign relations policy influences tea exports	.687	
Liberalization influences tea exports	.651	
Government incentives on exports influences tea export	.649	
Government policy on agro-research influences tea export	.626	
Taxation policy influences tea exports	.466	
Government policy on international marketing influences tea exports	.351	
Licensing policy influences tea exports	.340	Dropped

Extraction Method: Principal Component Analysis.

1 component extracted.

Appendix 8: Factor Analysis for Factory's Export Performance

Component Matrix

	Component	Dropped factors
	1	
International market share	.782	
International rating	.769	
Profitability/Dividend payout (Bonus)	.700	
International Sales	.685	
Number of international markets	.622	
Volume of sales	.620	
Average tea prices	.265	Dropped

Extraction Method: Principal Component Analysis.

1 component extracted.

Appendix 9: Beta Coefficients of Dependent Variable and the Independent variables when the moderating variable is introduced

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-4.876	2.157		-2.261	.027
Marketing	-.099	.069	-.094	-1.423	.159
1 Firm Size	.785	.054	.897	14.600	.000
Liberalization	-.053	.063	-.074	-.844	.402
Technology	.135	.037	.263	3.635	.001
(Constant)	-5.412	2.606		-2.077	.041
Marketing	-.102	.070	-.097	-1.446	.153
Firm Size	.786	.054	.898	14.509	.000
2 Liberalization	-.051	.063	-.071	-.798	.428
Technology	.135	.038	.261	3.589	.001
Government Policy	.017	.045	.020	.372	.711

a. Dependent Variable: Export Performance