FACTORS INFLUENCING THE PERFORMANCE OF SMALL SCALE TEA FARMERS
PROJECTS IN EMBU NORTH SUB COUNTY, EMBU COUNTY KENYA

BY

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2018
DECLARATION
This project is my original work and has not been presented for a degree in any other University.

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

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DEDICATION

This study is dedicated to my family for the constant support and encouragement throughout my study especially to my mum Sophia Nyaga, my brother Edwin Gitonga and my children Ammy Wanjiru, Ben Kamau and Alex Mbugua, who were there for me each low and high moment of the entire period of the study.
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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
ABSTRACT
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. The main purpose of this study was to assess the factors influencing the performance of small scale tea farmer’s projects in Embu north sub county, Embu county Kenya. The study was guided by the following objectives; To determine how farmers financial education influence the performance of small scale tea farmer’s projects in Embu north sub county; to determine how access to credit influence the performance of small scale tea farmer’s projects in Embu north sub county; to determine how Governance in KTDA influence the performance of small scale tea farmer’s projects in Embu north sub county; and to examine how social economic characteristics influence the performance of small scale tea farmer’s projects in Embu north sub county. The focus of this study was built upon the economic theory. The study adopted descriptive research design descriptive research involves gathering data that describe events and then organizes, tabulates, depicts and describes the data collection. The study targeted two factories, 794 small scale tea farmers and 119 employees working in those factories including the top managers. This study used purposive and random sampling methods. Questionnaires and interviews discussion were used to collect data from farmers and employees, qualitative data was analyzed using narratives and presented using themes while quantitative data was analyzed using SPSS version 21 and presented descriptively using frequency tables, percentages and through inferential statistics using regression. The findings of the study revealed that the performance of small scale farmers in the tea sector depended on the factors under investigation. Lastly, the responses indicated that the majority of the respondents, 97 (39%) felt that the governance in KTDA was the most important factor influencing the performance influencing the performance of small scale tea farmers; 43 (17%) stated extent of credit access as the most important factor; 80 (32%) indicated that farmers’ financial education was the most important factor and finally 28 (12%) indicated that social economic characteristic cs was the most important factor.
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Around the world agriculture is and will continue to be a major building block in the achievement of the Millennium Development Goals (MDGs). Recent statistics show that agricultural production needs to increase by 70 percent by 2050 in order to feed the world, while demographic growth, climate change, and urbanization put pressure on available cultivable land (IFC, 2011). In Kenya, agriculture is the largest economic sector and remains the best opportunity for economic growth and poverty alleviation on the country. It is practiced by both large and small scale farmers. Most of the small farmers have little education and limited exposure to modern financial instruments. Further, many of these small farmers have little or no experience in financial management and financial literacy. Therefore, this brings new attention to the issue of financial inclusion in the agricultural sector especially small-scale rural farmers.

Financial inclusion can be defined as the process of ensuring access to appropriate financial products and services needed by all sections of the society in general, and vulnerable groups such as weaker sections and low income groups in particular, at an affordable cost in a fair and transparent manner by regulated mainstream institutional players (Chakrabarty, 2010). Financing smallholder farming has been one of the major concerns of Kenya’s development efforts. Smallholders are known to be resource poor and, operate below their potentials (Nyikal, 2000 as cited in Nyikal, 2007). Many credit programs have evolved over the years in Kenya but with dismal performance. Access to financial services by small scale farmers has a potential to make a difference in agricultural productivity, food security and poverty reduction. However, a well-organized, sustainable, tailor made and widely accessible rural agricultural financial system remains a major development challenge in Kenya (Kibaara, 2006).

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.

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.

According to International Tea Committee, (2012) international prices for bulk teas are low compared to value added teas. 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.

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 a 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 phenomenon has led to some farmers uprooting tea and replacing it with alternative land usages while others resorted to selling their teas to multinational companies.

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 KTDA managed factories were to choose tea brokers on their own and were at liberty to change them.
In Embu County which is one of the leading tea producers in the Kenya and the world over and, over the last few years, the crop has become one of the county’s major foreign exchange earners, alongside, coffee and Macadamia. Farmers in Embu were able to produce 59,514 MT of tea worth Ksh.2.7 billion last year 2014 and this is expected to double with the introduction of the new technology and machinery. According to a report published by Mt Kenya Star News paper 2016, three tea factories in Embu paid out some of the highest end year bonus to their farmers, indicating farmers are producing high quality tea and the factories are managed better. Rukuriri Tea Factory paid the third highest amount of bonus per kilogramme in Kenya, at Sh36.50, only Sh 2 less than Imenti Tea Factory at Sh38.50 and Sh 1.50 less Githongo Tea Factory at Sh38.

In the KTDA payment, Rukuriri farmers earned Sh895 million, followed by Mungania farmers at Sh 842 million and Kathangariri farmers Sh 580 millions. Overall, tea farmers in Kenya earned Sh63.6 billion for the 2014-2015 financial year, which represents a 21 percent jump from the Sh52.6 billion earned in the 2013 – 2014 financial year. Of the Sh63.6 billion, Sh43.25 billion will be paid out to smallholder tea farmers as bonuses. Sh14.55 billion had already been paid out monthly to farmers as Initial Payment, based on monthly green leaf deliveries to factories, at the rate of Sh14 per kilo of green leaf.

1.2 Statement of the Problem
The current world real tea prices are on the decline due to overproduction (supply in excess of the demand) which has led to producers receiving low returns. Consequently, the situation has negatively affected working conditions and livelihoods of small-scale farmers and plantation workers in tea producing countries since they depend mostly on the commodity. There is need for drastic improvements in the social, ecological, economic and working conditions in this sector. (Tea Board of Kenya, 2012).

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 some of the factors influencing the performance of small scale tea farmer’s projects and others have ignored the impact of farmers financial education on performance of small scale tea farmers projects (Lages &
It is against this backdrop that the proposed study intends to investigate some of the factors influencing the performance of small scale tea farmer’s projects in Embu north sub county, Embu county Kenya. The independent variables for the study are farmer’s financial education, credit access, Governance in KTDA and social economic characteristics which will be discussed throughout the study and performance of small scale tea farmers’ projects.

1.2 Purpose of the study
The purpose of study was to examine factors influencing the performance of small scale tea farmer’s projects in Embu north sub county, Embu county Kenya.

1.3 Objectives of the study
The study was guided by the following objectives;

i. To determine how farmers financial education influence the performance of small scale tea farmer’s projects in Embu north sub county.

ii. To determine how access to credit influence the performance of small scale tea farmer’s projects in Embu north sub county.

iii. To determine the extent to which governance in KTDA influences the performance of small scale tea farmer’s projects in Embu north sub county.

iv. To examine how social economic characteristics influence the performance of small scale tea farmer’s projects in Embu north sub county.

1.4 Research Questions
i. To what extent does farmer’s financial education influence the performance of small scale tea farmer’s projects in Embu north Sub County?

ii. How does access to credit influence the performance of small scale tea farmer’s projects in Embu north sub county?

iii. To what extent does Governance in KTDA influence the performance of small scale tea farmer’s projects in Embu north Sub County?

iv. How do social economic characteristics influence the performance of small scale tea farmer’s projects in Embu north Sub County?
1.5 Significance of the Study
The results from the study may be beneficial across several spectrums. The study findings are expected to expose the factors influencing the performance of small scale tea farmer’s projects 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 findings of this study may be of high importance to the government since it 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.

1.6 Basic assumptions of the study
The study was be based on the following assumptions; It was assumed that all the participants would answer all the questions as asked and honestly. It also assumed that the relevant concerned authorities would give their full cooperation. It was also assumed that the gaps and challenges to be highlighted will be a cause for review on plans and policies as well as the implementation process.

1.7 Limitations of the study
Some of the limitations which the researcher may face were full disclosure of information from various tea factory companies and farmers may be challenge. Information on profitability, production efficiency and procurement procedures is found to be sensitive because of their confidential nature. This however was minimized by assuring the firms that the final report did not disclose the names of the respondents.

1.8 Delimitations of the Study
The study looked at the small scale tea sector that is managed by KTDA Ltd. In Kenya KTDA currently manages 65 factories and over 562,000 farmers, majority of them having about 0.5acres under tea. However the study will focus on factors influencing the performance of small scale tea farmer’s projects in Embu north sub county, Embu county Kenya. The study targeted two factories in Embu county namely Mungania tea Factory and Kathangariri tea factory and target a population of 794 small scale tea farmers. The
target population was sampled so as to have a small population and the study was guided strictly by the objectives of the study and focused on the following variables; farmer’s financial education, credit access, Governance in KTDA and social economic characteristics.

The study took place in Embu County and targeted small scale tea famers and senior employees in Mungania and Kathangarire tea factories. Mungania tea factory was built in 1972 and it is located on the South Eastern Slopes of Mt. Kenya, Eastern Province, Embu County, Runyenjes Sub-County, Kagaari Location, Kianjokoma Sub location, Kiandong’o Village. It is 20 kilometres from Embu town the County Headquarters and 152 kilometres from Nairobi the capital city of Kenya. It is 25 minutes south of Equator and 370 23 minutes West; 1600m above sea level. It is served by a 12 km tarmac road of Embu-meru highway. The factory catchments lie on the slopes of Mt. Kenya about 2000 meters above sea level with a cool climate with temperatures ranging from 14 to 18 Celsius and well spread rainfall the factory serves 9,024 small-scale tea growers of Embu community with a total hectarage of 1671.1 Ha

The factory specialises in manufacture of Black CTC teas. Kathangarire tea factory is situated in Nguviu sub-Location, Nginda Location, Manyatta division of Embu District in Eastern province. It lies 16km from Embu town. The factory lies 0.5º South of Equator and 37º East of Greenwich. The factory falls under high altitude areas below Mt Kenya forest and is 1825 metres above sea level. The factory is approximately 157 km from Nairobi towards North Eastern of the country. The construction of the Factory started in 1999 and was completed in July 2002. It started processing tea in December 2002. It is one of the three factories in Embu District, and among 8 Factories in KTDA region 3.

The Registered number of active growers in Kathangariri tea factory is 8,045. The acreage under tea is 1190.60 hectares. These figures are set to increase as there is a potential area covering 1672 hectares. The total distance covered within the whole catchment is around 151 kms with the furthest tea buying centre being 12 kms. The breed grown is clonal teas of assamica variety. Some of these clones include 6/8, 31/8, 15/10 and other mixed clones. The factory can be accessed from Embu through the following roads: Embu – Kibugu market - Kathangariri (partly gravelled), Embu – Kangaru -

1.9 Definition of significant terms

**Financial education**- is the possession of knowledge and understanding of financial matters. Financial literacy is mainly used in connection with personal finance matters. Financial literacy often entails the knowledge of properly making decisions pertaining to certain personal finance areas like real estate, insurance, investing, saving (especially for college), tax planning and retirement. It also involves intimate knowledge of financial concepts like compound interest, financial planning, the mechanics of a credit card, advantageous savings methods, consumer rights and time value of money.

**Debt Management** – Is any strategy that helps a debtor to repay or handle their debts better. Debt management may involve working with creditors to restructure debt or helping the debtor manage payments more effectively.

**Record Keeping** – Is the process of recording transactions and events in an accounting system.

**Risk Management** – Is the process of identifying, quantifying and managing the risks that an organization faces.

**Credit access** -is the ability of individuals or enterprises to obtain financial services, including credit, deposit, payment, insurance, and other risk management services.

**Bank** – An establishment authorized by a government to accept deposits, pay interest, clear cheques, make loans and act as an intermediary in financial transactions as well as provide other financial services to its customers.

**Bank Account** – Is a financial account maintained by a financial institution for a customer. It represents the funds that a customer has entrusted to the financial institution and from which the customer can make withdrawals.

**Credit Worthiness** - Is the creditor’s judgement of an entity and future ability and ability and inclination to honour debt obligations as agreed upon. It is based on the credit history, rating and character of the entity.
**Governance** - Establishment of policies, and continuous monitoring of their proper implementation, by the members of the governing body of an organization. It includes the mechanisms required to balance the powers of the members.

**Leadership Style** – Is a leader’s style of providing direction, implementing plans, and motivating people.

**Social economical characteristics** - population expressed statistically, such as age, sex, education level, income level, marital status, occupation, religion, birth rate, death rate, average size of a family, average age at marriage.

**Gender** - Is the state of being male or female.

**Age** – A distinct period of history

**Social Class** – Is a broad group in society having common economic, cultural or political status.

**1.10 Organization of the study**

The study was organized into five chapters. Chapter one is the introduction. It covers the background of the study, statement of the problem and purpose of the study. This is followed by the research objectives, research questions, justification of the study, limitations of the study, delimitations of the study, significance of the study, definition of significant terms and concludes with the organization of the study.

Chapter Two covers the literature review from various sources to establish work done by other researchers, their findings, conclusions and identification of knowledge gaps which forms the basis of setting objectives and research questions of the study. The theoretical and conceptual frameworks are also explained.

Chapter Three is the research methodology and will cover the research design, target population of the study, sample size and sampling procedures. This is followed by data collection procedures, data collection instruments, validity of the instruments, reliability of instruments, data analysis techniques, ethical considerations and concludes with operational definition of variables.

Chapter four covers the findings form data analysis, presentation of findings and interpretation of findings. It concluded with the summary of the chapter.
Chapter five covers the summary of findings, discussions, conclusions and recommendations of the study. It will be concluded with suggested areas for further research and contribution to the body of knowledge.
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction
This chapter reviews the different literatures written in the areas of tea farming, factors influencing the performance of small scale tea farmer’s projects and the chapter also offers theoretical, empirical and conceptual frameworks on which the study is based.

2.1 An overview of tea farming
The world trade in tea is more than 2.5 million tons annually. Tea is a billion dollar industry and this commodity contributes significantly to the economic revenue of tea producing countries. The demand for tea has been rising over the years as consumers have become aware of the health benefits of consumption of this product (Davies, Jud, Baer, Clevideine, Paul, Edwards, Wiseman, Muesing, and Chen, 2003).

Tea was discovered more than 5000 years ago, by an emperor Shen Nung in China. Tea was introduced into Kenya from India by a European settler G. W. Caine in the 19th century when a set of seeds from India were planted on a small farm in 1903 (UK Tea Council, 2010). However commercialization of the tea started in 1924. While tea is produced in more than 35 countries, only a handful-China, India, Kenya and Sri Lanka are responsible for almost three-quarters of production and, indeed, more than half of the world’s tea is produced in China and India alone (Sanne van der Wal, 2008). At global scale, tea is majorly produced in large plantations, but smallholder production is important in countries such as Kenya and Sri Lanka.

Currently, Kenya prides itself as one of the world's leading black Tea producers. The main tea growing areas in Kenya are situated in and around the highland areas on both sides of the Great Rift Valley and include the areas around Mt. Kenya, the Aberdares, and the Nyambene hills in the central Kenya and the Mau escarpment, Kericho Highlands, Nandi and Kisii Highlands and the Cherangani Hills. Kenya’s tea contributes 4% to the Gross Domestic Product. The industry contributed total earnings of Kshs.103 billion of which Kshs. 97 billion came from exports and Kshs. 6 billion was earned from the local
Tea is a major cash crop that is grown in Kenya. Tea is ranked as third major foreign exchange earner, in Kenya behind Tourism and Horticulture. Most tea produced in Kenya is black tea. However green tea, yellow tea and white tea are produced on order by major tea producers. Kenya is the third largest producer of tea (displacing Sri Lanka), after India and China and largest exporter of black tea in the world with smallholder production accounting for about 66% of total tea production (378 million kilograms in 2011), (Kariuki, 2012). Omolo (2010) states that the tea industry has of late increasingly become the country’s greatest economic asset earning close to Kenya shillings 70 billion between 2008 and 2009; most of it in hard foreign currency thus the small scale tea industry takes care of lives close to five million Kenyans.

The task of managing the small scale holders lies with the Kenya Tea Development Agency (KTDA). Currently KTDA has 62 tea factories serving over 500,000 small scale farmers cultivating over 100,000 hectares. Of all tea produced in Kenya KTDA produces over 60% while the rest is produced by the large scale producers. Tea in Kenya is controlled by different institutions and government bodies. These are: the Ministry of Agriculture, which bears responsibility to the government; the Tea Board of Kenya, which manages the tea industry in Kenya on behalf of the Government; the Kenya Tea Development Agency (KTDA), which manages small scale farmers and the Tea Research Foundation of Kenya (TRFK), which facilitates tea research in Kenya. 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.

2.2 Performance of small scale tea farmers
The tea industry operates under the Tea Act (Cap 343) and Agricultural Act (Cap 318) of the laws of Kenya. While the former is vested with regulatory services, the latter is more managerial overseeing the whole process of production as a technical arm. Small-scale tea farming in Kenya was placed under The Kenya Tea Development Agency-KTDA (formerly; Kenya Tea Development Authority). Currently the small-scale farmers
account for 60% of all the tea produced in Kenya. The large scale tea plantations are still under the control of big multinationals.

2.3 Farmers’ financial education and performance of small scale tea farmers

Financial education is the study about the management of money and the set of skills and knowledge that allows an individual to make informed and effective decisions with all of their financial resources. Financial literacy is a measure of an individual’s knowledge of financial concepts and their ability to use that knowledge to make critical decisions in the money management process. Financial illiteracy, or the lack of financial knowledge, places an individual at a disadvantage in the local financial system when interacting with other economic agents, potentially leading to a lifetime of financial hardship.

Tea farmers need to maintain proper and accurate financial records to ensure efficient operations enable planning and allow for adequate adjustments, which in turn increase profitability.

Improvements in financial performance increase the ability of a business entity to take on more financial risk. Increasing financial efficiency has a positive effect on the performance of the tea farmers. Financial literacy involves an individual’s ability to interpret and understand basic financial concepts and apply that knowledge to make informed decisions. Financial literacy is more than a measure of knowledge - it also reflects competency in actively managing one’s own money from the point of accumulation to the point of consumption (Remund, 2010).

There are three primary benefits to being financially literate. Financial literacy plays a key role in preventing individuals from becoming involved with fraudulent financial transactions or engaging in financially destructive behavior (Comptroller of the Currency, 2011). Financial literacy is also advantageous for wealth preservation. Studies show that people who are more financially literate tend to be better at retirement planning, accumulating wealth, and avoiding debt. In fact, people who develop financial plans tend to be 10 to 15 percent wealthier than those who do not (Palmer, 2008). Although low-income, underserved, and otherwise disadvantaged groups are more prone to financial mishap or poverty due to fiscal mismanagement, the need for financial literacy
is universal and spans all classes. It is important not only for personal financial management, but also to prevent macroeconomic disasters like the recent global financial crisis from reoccurring. Thus, financial literacy is an important step towards long-term financial stability in America (Charles Schwab & Co., Inc., 2010).

The risks that farmers face result from numerous sources of change or uncertainty. Production uncertainty in crop enterprises is caused by variations in weather and by disease, insects, and other biological pests. Closely associated with weather and other natural hazards is the risk of price fluctuations. Price uncertainty has always been a major consideration in farming, and farm commodity prices have fluctuated dramatically in recent years. Another type of uncertainty arises from the constant development and adoption of new techniques or methods of production. The rapidity of technological change can also contribute to uncertainty. A new method may be adopted, but a still better method may follow close behind, making the first investment obsolete.

Business risk is commonly defined as the inherent uncertainty in the financial performance of a firm independent of the way it is financed. Farmers need to have a variety of mechanisms for managing risk. The best method(s) of managing risk depends upon the nature of the risk involved. Four general procedures for managing risk are: avoidance, reduction, assumption/retention, and transfer.

Avoidance is the process of structuring the business so that certain types of risk are nonexistent. Reduction is the process of lowering the risks associated with the business venture. Assumption/retention is the process of retaining or accepting risks with the objective that assuming this increased risk is to maintain control and/or enhance overall profitability. Transfers of risk occur when one party lowers their risk by shifting that risk to someone else, often for fee.

2.4 Extent of credit access and the performance of small scale tea farmers
During the first two decades after independence, Kenya’s economy grew on average by about 6% per year largely associated with the growth in agriculture. Despite this, a study by Argwings-Kodhek (2004) revealed that no institution in Kenya has really perfected lending to normal agriculture per se and most of their loans go to school fees, business
development and building houses or commercial premises. Agricultural credit plays an important role in agricultural performance. Agricultural household models suggest that farm credit is not only necessitated by the limitations of self-finance but also by uncertainty pertaining to the level of output and at the time lag between inputs and outputs (De Janvry and Sadoulet, 1995). Credit plays an important role in agricultural development and expansion of credit programmes will have beneficial effects on agricultural production and the incomes of small farmers. Credit restrictions such as credit that requires collateral and the lengthy and complicated procedures restricted to farmers have made the credit access particularly difficult for small scale farmers to access credit.

Providing innovative financing schemes that address these problems faced by farmers could alleviate the low extent of credit access to these farmers. The current trend in Kenya especially, where small micro finance institutions have made a great presence in rural regions has had a great impact on credit access by the small-scale farmers. Farmers who utilize formal credit facilities form banks and go the extra step of operating their own bank accounts have decreased their reliance on informal lenders and their exorbitant interest rates. By doing so, these farmers have increased their farm productivity and incomes.

Credit is essential for agricultural development and is often a key element of agricultural modernization. It cannot only remove a financial constraint but it could also increase production and income, and may accelerate the adoption of technologies (Atieno, 1997; Duong & Izumida 2002; Meyer & Nagarajan, 2000). Furthermore, credit facilities will help farmers purchase modern inputs such as high yielding varieties of seeds, fertilizers and install irrigation to increase production (Chowdhury & Garcia, 1993; Vicente & Vosti, 1995). Access to credit is limited in rural areas although a high demand for it exists (Sahu et al., 2004). It is therefore important that establishing of formal financial institutions such as banks is an adequate financing strategy to help improve income, which will inevitably lead to greater productivity and performance.

While agriculture remains a key economic activity in Africa employing about 55% of the population, only approximately 1% of bank lending goes to the agricultural sector.
Access to financial services, while not a means to an end, is critical to provide funds for farm investments in productivity, improve post-harvest practices, smooth household cash flow, enable better access to markets and promote better management of risks. Access to finance can also play an important role in climate adaptation and increase the resilience of agriculture to climate change, thus contributing to longer term food security. Access to a comprehensive range of financial services is a significant challenge for smallholders, who constitute the vast majority of farmers in developing countries.

2.5 Governance in KTDA and the performance of small scale tea farmers

Most of Kenya’s tea is sold in bulk to key buyers such as Pakistan and Egypt through the Mombasa Tea Auction. It is sold through direct sales and through the auction system. The auction is conducted under the auspices of the East Africa Tea Trade Association (EATTA), the regional body that regulates the sale of tea leaves for the East African Producers. In Kenya, imprudent financial management practices are a major problem in tea factories. According to an article in the Sunday Nation, Why Imenti Tea Farmers are Earning Hefty Bonus Payout (Wahome, September 30 2012) there are huge disparities in farmer bonus earnings between factories and regions in the tea. The pay variations between tea factories are attributable to four factors including demand for tea from different geographical zones due to quality, financial costs, environmental factors and labor costs.

KTDA has come under heavy complaints from producers for poor service delivery at the collection points, an issue that has greatly affected performance of the farmers and influenced performance. The poor state of the roads in the tea growing regions has also had a negatively affected green tea transport systems. Kenya Tea Development Agency has called upon tea factories in different regions to review their financial management practices and system in order to reduce the bonus earnings variations and ensure 75% of returns are paid to farmers. Returns to the small-scale farmers have historically remained lower than that for the plantations and other big producers. This is attributed to the high management fees charged by KTDA, the many taxes imposed on small-scale tea farming, the high cost of production the long and inefficient supply chain and general mismanagement. The situation is made worse by the fact that the small-scale farmers
have remained at the bottom of the hierarchy in terms of participation, influencing and contribution to decision making in the sector.

Although both the KTDA and the estate tea fetch similar prices on the world markets, the participation of many players who have to get a share and management problems along the KTDA supply chain reduce the payments to small-scale farmers. For instance the factory building programme involved a great deal of capital investment that KTDA carried out on behalf of the farmers. Though this was necessary, the farmers were totally kept out of the process. This led to expensive loans whose burden of payment was passed on to the farmers. A second example is the commission paid out to Tea Brokers by KTDA. The rates are decided solely between KTDA and the brokers with the farmers completely out of the picture, yet these charges are deducted from tea payments to the farmers.

As a consequence of these and many other bad decisions and poor business practices the average return to the farmer has remained dismal with tea factories paying an average of USD 0.21 per Kg of green tea leaf collected in spite of Kenyan tea fetching an average of USD 1.72 per Kg on world markets in the last 8 years. The low payments to farmers are beginning to negatively affect production. This was evident in some areas where tea farms are being neglected and in some extreme cases tea bushes uprooted. However, this affects production at household level since tea is one of the stable cash crops in Kenya. However, such practices should awaken the industry leaders that all is not well in the small holder tea sub-sector.

In regard to tea payment, the declining tea prices are a major concern for tea farmers, since despite an increase in production and yields the average payments to farmers continue to decline.

2.6 Social Economic characteristics and the performance of small scale tea farmers

GEM, (2004) defined Performance as the act of performing; of doing something successfully; using knowledge as distinguished from merely possessing it. However, performance seems to be conceptualized, operationalised and measured in different ways thus making cross-comparison difficult. Cooper et al (1992) examined various factors
which influence business performance such as: experience, education, occupation of parents, gender, race, age, and entrepreneurial goals. While, Lerner and Hisrich (1997) conducted a study on Israeli women entrepreneurs and categorized the factors that affect their performance into five perspectives, that is, motivations and goals, social learning theory (entrepreneurial socialization), network affiliation (contacts and membership in organizations); human capital (level of education, skills) and environmental influences (location, sectoral participation, and socio-political variables).

Thibault et al. (2002) suggest that factors influencing business performance could be attributed to personal factors such as demographic variable and business factors such as amount of financing, use of technology, age of business, operating location, business structure and number of full-time employees as important factors in examining the performance as small-scale business operators. The most comprehensive summary of factors influencing performance was noted in a literature review by Theo, et al. (2007) to include: individual characteristics, parental influence, business motivation and goals, business strategies, goals and motives, networking and entrepreneurial orientation. Mostly, women are involved in tea picking and tea production activities in the smallholder farms. Women’s participation should be promoted by encouraging and ensuring access to market intelligence, improving access to, and control of resources and finally providing access to credit schemes.

Explanatory elements include labor, household size, diversity in resource endowment of households, and reliance on off-farm employment. Also included are the age groups and gender relations in farm operations. Gender applies to one sex or the other. Agricultural policy makers have for a long failed to recognize women as farmers, instead seeing men as the farmers. As a result, rural women have lagged behind men in most social and economic criteria. (United Nations, 1985). In addition, in most of the developing countries, women’s actual contribution to food production and the rural economy remains undervalued due to which women have less access to productive resources. Qiusumbing er al., (2014) stated that agriculture is underperforming because half of its farmers, women, do not have equal access to the resources and opportunities.
Pandey et al., (2010) studied the gender role in rice farming in the Philippines and stated that gender roles and gender relations within households are strongly influenced by social, cultural, economic circumstances, family structure, and the degree of labor participation in the market place. Udry et al., (1995) studied gender differentials in farm productivity in African households and found that plots controlled by women for all crops have significantly lower yields in men controlled plots within a same year for the same cropping patterns. This, he attributed to the fact that women have less access than men to productive resources and opportunities.

2.7 Economic Theory.

The farmer is assumed to make a choice from various alternatives by considering the alternative that gives him or her maximum utility. The consumer theory as developed by (Lancaster, 1966), postulates that preferences for goods are a function of the attributes possessed by the goods rather than the goods per se. An important implication of this theory is that the overall utility of a good can be decomposed into separate utilities for its constituent characteristics or traits. This translates into using the attributes of the good as the argument of the function in terms of utility function. A good can thus be described by the attributes that generate the utility or disutility to the individual.

2.7 Conceptual Framework

According Mugenda and Mugenda, (2008) Conceptual framework involves forming ideas about relationship between variables in the study and showing these relationships graphically or grammatically. Therefore, it is used in research to outline possible courses of action or to present a preferred approach to an idea or thought. These variables and their relationships are illustrated in the following figure below:
The literature review presented above suggests that the conceptualized determinants of performance of small scale tea farmer’s projects: farmers’ financial education, extent of credit access, governance in KTDA and social economic characteristics. However, there is a deficiency in studies that have simultaneously investigated all the factors, and hence, their relative importance is not easily discernible. This study proposes to fill this gap in knowledge. The study will seek to fill this gap by comprehensively and critically examining the performance of small scale tea farmer’s projects.
Factors influencing the performance of small scale tea farmer’s will be indicated by certain criteria including farmers’ financial education, extent of credit access, governance in KTDA and social economic characteristics. Efficient access and level of farmers’ financial education as reflected by proper debt management, proper record keeping, and risk management will have a positive influence on the production and profitability of small scale tea farmers.

Extent of credit access as indicated by access to banks and the availability of loan facilities to the small-scale farmers in these banks plus their credit worthiness will have a positive influence on the farmer’s activities hence positively influencing the productivity and performance of these small scale tea projects.

There is a positive correlation between education and business development. Entrepreneurial literature shows existence of a positive correlation between education and business creation (Luthje and Frank, 2002, Charney and Libecap, 2000). Studies by University of Arizona and New York University substantiate this finding and reveal that people who received entrepreneurial education perform better at running their own business. In this regard, good governance within the Kenya Tea Development Agency (KTDA) will lead to improved performance and productivity. Good governance is indicated by proper leadership styles, efficient delivery services and satisfactory tea payments.

Social economic characteristics, as indicated by gender, age and social class will influence the production and performance of the tea projects. This is due to the different views on such projects by the farmers, albeit of different age groups, gender and / or social class.
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 are 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 Design
Research design is defined as the link between the collected empirical data, its 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)

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). 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) noted that descriptive studies are used to generate hypothesis with specific objectives resulting in definite conclusions. James and Vinnicombe (2002) cautioned 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.
3.3 Target Population of the Study
According to (Ogula, 2005) population refers to all elements that possess the characteristic of interest. A research population is also known as a well-defined collection of individuals or objects known to have similar characteristics. The study targeted two factories, 794 small scale tea farmers and 119 employees working in those factories including the top managers.

Table 3.1 Target population

<table>
<thead>
<tr>
<th>Factories</th>
<th>Target population of Tea Farmers</th>
<th>Target population Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mungania</td>
<td>231</td>
<td>56</td>
</tr>
<tr>
<td>Kathangariri</td>
<td>563</td>
<td>63</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>794</strong></td>
<td><strong>119</strong></td>
</tr>
</tbody>
</table>

3.4 Sampling procedures, method and sample size
Kothari (2004) defines sampling design as the technique or procedure the researcher would adopt in selecting items for the sample. 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.

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 used two types of sampling methods, first it adopted purposive sampling method to sample 119 employees so as to get a sample size of 25 top level employees the purpose of using this sampling method is that the researcher considers the purpose of the research by the knowledge she has of the population and by selecting the participant who provide relevant information.

The second sampling method was simple random sampling method. In this sampling method, small scale tea farmers was individually be chosen at randomly and entirely by chance, such that each individual has the same probability of being chosen at any stage during the sampling process. Since the target population of small scale farmers was large
the researcher used 30% of the total population of small scale farmers to get a sample size of 238 small scale farmers. Kothari (2004) says that a representative sample is one which is at least 10% of the population thus the choice of 30% is considered as representative of the population. The sample size is shown in the table 3.2 below;

Table 3.2 Sample size

<table>
<thead>
<tr>
<th>Factories</th>
<th>Target population of Tea Farmers</th>
<th>Sample size at 30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mungania</td>
<td>231</td>
<td>69</td>
</tr>
<tr>
<td>Kathangariri</td>
<td>563</td>
<td>169</td>
</tr>
<tr>
<td>Total</td>
<td>794</td>
<td>238 sample size</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factories</th>
<th>Target population of employees</th>
<th>Purposive sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mungania</td>
<td>56</td>
<td>10</td>
</tr>
<tr>
<td>Kathangariri</td>
<td>63</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>119</td>
<td>25 sample size</td>
</tr>
</tbody>
</table>

| Total Sample size | 263 |

In this study the total sample size of all respondents was 263 respondents.

3.5 Data collection instruments

Two sets of data are relevant to the effective conduct of this research namely primary and secondary. The primary data which refers to field data was obtained through the use of well structured questionnaires and interviews developed from the initial identification of likely factors influencing the performance of small scale tea farmer’s projects in Embu north sub county. The questionnaires and interviews schedule were administered to small scale tea farmers and top level employees working in the tea factories.

3.6 Construction of Questionnaires

Part one of the questionnaire contained the background information of the small scale tea farmers who were respondents in the study. Subsequently, some closed Yes / No
questions will seek to establish if the research variables influence performance of small scale tea farmers project.

The extent to which each of the research variable influences performance of small scale tea farmers will be investigated using likert scale items that will form the third part of the questionnaire. The likert scale items will have five categorization ranging from strongly agree (SA), agree (A), neither agree nor disagree (ND), disagree (D) and strongly disagree (SD). In order to measure the mean (M) and standard deviation (SD) from the likert scale items allotment of numerals will be done as follows; SA=1, A=2, ND=3, D=4 and SD=5. The same allotment will be accorded to the other likert scale items with the following categorization on the extent scale: Very great extent (5), great extent (4), average extent (3), small extent (2) and no extent (1). Respondents will also suggest measures the county government needs to take to effectively adopt e-procurement county government.

3.7 Interview Schedule
According to Mugenda and Mugenda(1999) an interview schedule make it possible to obtain the data required to meet the specific objectives of the study, interviews schedule are also used to standardize the interview situation so that interviewers can ask the same question in the same manner. The researcher used the interview schedule to elicit information from top level employees.

3.8 Data collection procedures
The researcher sought for an introductory letter from University of Nairobi and Authorization letters and research permit. This document enabled the researcher to secure an authorization letter from the county commission and county director. This letter introduced the researcher to tea farmers and employees to administer questionnaires. The researcher then embarked on administering of data collection instruments to the sampled respondents. The instruments were collected the same day but in case the respondents will be not present, the questionnaires were left and handed to the same respondents after two day
3.9 Piloting of Research instruments
The researcher carried out a pilot testing where a sample of 18 respondents was used; this is based on Mugenda (2003) 10-30% recommendation of the sample size representation. These respondents were not part of the selected sample size but carry the similar characteristics. The respondents were required to answer the questions after which they were analyzed by the researcher to check whether the respondents filled in the questions with ease. Where any problems were registered, the questions in the questionnaire, interviews and focus group were rephrased and returned after a week so they could be filled again. The filled questionnaires and interviews were analyzed again to ascertain that there is no problem in answering. This process was repeated until it was confirmed that the respondents would fill in the questionnaires without problems.

3.10 Validity of the Instruments
Validity means the research instrument should measure what it is intended to measure. It is the degree to which the test items measure a particular quality for which the test was designed (Kothari, 2004). Validity is the accuracy, soundness or effectiveness with which an instrument measures what it is intended to measure (Kumar, 2005). The questionnaire was reviewed by a group of experts in the field of the study. They were requested to identify the internal validity and to what extent it was suitable to be used as an instrument to realize the goals and aims of this research. The panel ensured that the items adequately represent concepts that cover all relevant issues under investigation.

3.11 Reliability of the Instruments
Mugenda (1999) defined reliability as a measure of the degree to which a research instrument yields consistent results or data after repeated trials. An instrument is reliable when it can measure a variable accurately and obtain the same results over a period of time. This research study used test-retest method which involves administering the same scale or measure to the same group of respondents at two separate times. A pilot study was conducted. Test re-test method was used to test for reliability of the instruments. The instruments were administered to the respondents and re-administered to the same respondents after one week. This is in line with (Shuttleworth, 2009), who stated that the instrument should be administered at two different times and then the correlation between
the two sets of scores computed. This was done using Pearson’s Product Moment correlation coefficient Formula and a correlation coefficient of 0.7 should be obtained which shows the instrument is reliable and measurable.

3.12 Credibility of qualitative data
The credibility is involved in establishing that the result of the research are believable and depends more on the richness of the information gathered, rather than the amount of data gathered. The researcher established the credibility of qualitative data by data triangulation through multiple analyst experts.

3.13 Data Analysis techniques
Orodho, (2008) observed that data analysis involves some manipulations of data collected through use of statistical tools in order to compute a number or a percentage. In this study, data was analyzed quantitatively using descriptive techniques. According to Mugenda & Mugenda (2003), data analysis is the process of bringing order, structure and meaning to the mass of information collected. Quantitative data was analyzed using descriptive statistical methods as depicted by the use of mean and standard deviation. Use of likert scale items ensured that qualitative data was analysed as quantitative data especially on the use of likert scale to analyse attitude which ideally in the ambit of qualitative data but was analysed quantitatively.

The use of likert scale items in questions on the implementers attitude towards various aspects of e-learning will have five categorisations on attitudes ranging from strongly agree (SA) to strongly Disagree (SD). This enabled this quintessentially qualitative data to be analysed using the SPSS and it will also yield other measurable such as mean, standard deviation and percentages. The data collected by use of the questionnaire was thoroughly edited and checked for completeness and comprehensibility. Quantitative data was chronologically arranged with respect to the questionnaire outline to ensure that the correct code was entered for the correct variable. Data was then cleaned, tabulated and analyzed with the aid of Statistical Package for Social Sciences (SPSS 21.0). The data was presented using tables, graphs, charts and written discussion.
3.14 Ethical considerations
The researcher explained to the respondents about the research and that the study was for academic purposes only. The researcher made clear that the participation was voluntary and that the respondents may feel free to decline or withdraw any time during the research period. Respondents were not coerced into participating in the study. The participants were informed consent to make the choice to participate or not and they were guaranteed that their privacy would be protected by strict standard of anonymity.

3.15 Confidentiality
The respondents were assured the source of the findings would never be disclosed to any third party and so their utmost accuracy is expected (Cress, 2014]). This ensured that the respondents had built sufficient confidence in giving responses.

3.16 Anonymity
The researcher assured the respondents that their identities as participants in the research would not be unveiled to any other person and this gave the respondent the sense of independence when responding to the research instruments.

3.17 Informed consent
The nature and purpose of the research was explained to the respondents by the researcher. The researcher explained to the respondents the procedure to be followed during the data collection so that they can participate willingly.

3.18 Storage of the data collected
Once the data was analysed, computer print-outs were filed while softcopies will be stored in storage devices such as CDs and flash diskettes.
### 3.11 Operational definitional of variables

Table 3.3 Operational definitional of variables

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Type of Variables</th>
<th>Indicator(s)</th>
<th>Measure(s)</th>
<th>Level of scale</th>
<th>Approach of analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>To determine how farmers financial education influence the performance of small scale tea farmer’s projects in Embu north sub county.</td>
<td>Independent Farmers financial education</td>
<td>Debt management</td>
<td>Level of debt</td>
<td>Ordinal</td>
<td>Qualitative and Quantitative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Record keeping</td>
<td>Number of records</td>
<td>Ordinal</td>
<td>Qualitative and Quantitative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Risk management</td>
<td>Number of risk taken and succeeded</td>
<td>Ordinal</td>
<td>Qualitative and Quantitative</td>
</tr>
<tr>
<td>To determine how access to credit influence the performance of small scale tea farmer’s projects in Embu north sub county.</td>
<td>Independent Credit access</td>
<td>Access to banks</td>
<td>Level of banking</td>
<td>Nominal</td>
<td>Qualitative and Quantitative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Availability of banks account</td>
<td>Level of saving</td>
<td>Ordinal</td>
<td>Qualitative and Quantitative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Credit worthiness</td>
<td>Availability of assets</td>
<td>Nominal</td>
<td>Qualitative and Quantitative</td>
</tr>
<tr>
<td>To determine how Governance in KTDA influence the performance of small scale tea farmer’s projects in Embu north sub county.</td>
<td>Independent Governance of KTDA</td>
<td>Leadership style</td>
<td>Type of leadership style</td>
<td>Ordinal</td>
<td>Qualitative and Quantitative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delivery service</td>
<td>Level of delivery</td>
<td>Ordinal</td>
<td>Qualitative and Quantitative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tea payment and prices</td>
<td>Level of payment</td>
<td>Nominal</td>
<td>Qualitative and Quantitative</td>
</tr>
</tbody>
</table>
To examine how social economic characteristics influence the performance of small scale tea farmer’s projects in Embu north sub county.

<table>
<thead>
<tr>
<th>Independent Social economic characteristics</th>
<th>Gender</th>
<th>Type of gender</th>
<th>Ordinal</th>
<th>Qualitative and Quantitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Number of age</td>
<td>Nominal</td>
<td>Qualitative and Quantitative</td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>Level of social class</td>
<td>Nominal</td>
<td>Qualitative and quantitative</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dependent Performance of small scale tea farmers</th>
<th>Production</th>
<th>Level of production</th>
<th>Nominal</th>
<th>Qualitative and Quantitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td>Level of profitability</td>
<td>Nominal</td>
<td>Qualitative and Quantitative</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction
The chapter presents the analysis, presentation and subsequent interpretation of the study results based on the findings of the study as conducted by the researcher. The findings are based on the following thematic areas: Farmer’s financial education, credit access, governance in KTDA and socio economic factors influencing the performance of small scale tea farmer’s projects.

4.2 Questionnaire Return Rate
The study targeted 263 respondents. After issuing the research instrument to the respondents, the researcher received 248 (94%) duly filled in questionnaires. 10 tea farmers and 5 employees of the tea factories did not provide their responses thus 15 (6%) were not returned. The table 4.1 below presents the findings.

Table 4.1. Return Rate

<table>
<thead>
<tr>
<th>Response Rate</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returned</td>
<td>248</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>Not Returned</td>
<td>15</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>263</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

These findings imply that the response rate was excellent, going by Mugenda (2009) assertion that a response rate of 70% and above is excellent for data analysis and reporting.
Part A: General Information
Responses were sought on the gender, age, marital status, level of education and experience as a tea farmer. These findings were necessary to introduce the respondents to the study.

4.2 Gender of the Respondents
The researcher sought to establish the gender of the respondents. The findings were as shown in table 4.2 below:

Table 4.2 Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>153</td>
<td>62</td>
<td>62</td>
</tr>
<tr>
<td>Female</td>
<td>95</td>
<td>38</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>248</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

The findings showed that 153 (62%) of the respondents were male while 95 (38%) were female. This implied an almost even distribution of men and women in the tea farming sector. Thus, performance of the tea farms directly influenced the families in the research area.

4.3 Age of the Respondent
Responses were sought on the ages of the respondents. The analysis revealed that the age distribution was as show in table 4.3:
Table 4.3 Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 25</td>
<td>31</td>
<td>12.5</td>
<td>12.5</td>
</tr>
<tr>
<td>26 - 35</td>
<td>44</td>
<td>18</td>
<td>30.5</td>
</tr>
<tr>
<td>36 – 50</td>
<td>70</td>
<td>28</td>
<td>58.5</td>
</tr>
<tr>
<td>Above 50</td>
<td>103</td>
<td>41.5</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>248</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

The analysis of findings revealed that 31 (12.5%) of the respondents were aged below 25 years, 44 (18%) of the respondents were aged between 26 – 35 years, 70 (28%) of the respondents were aged above 50 years and the vast majority, 103 (41.5%) were above 50 years old.

The findings implied that the majority of the farmers were aged above 50, indicating that tea farming is practiced mostly by retirees due to its intensive and time consuming nature.

4.4 Level of Education

When asked about their education level, the respondents’ answers were as shown in the Table 4.4:
<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary School</td>
<td>24</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Secondary School</td>
<td>56</td>
<td>23</td>
<td>33</td>
</tr>
<tr>
<td>Certificate</td>
<td>69</td>
<td>28</td>
<td>61</td>
</tr>
<tr>
<td>Diploma</td>
<td>48</td>
<td>19</td>
<td>80</td>
</tr>
<tr>
<td>Degree Level</td>
<td>33</td>
<td>13</td>
<td>93</td>
</tr>
<tr>
<td>Post Graduate</td>
<td>18</td>
<td>7</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>248</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

The analysis of the findings revealed that 24 (10%) of the respondents had attained primary school education; 56 (23%) had completed secondary education; 69 (28%) had a post secondary school certificate; 48 (19%) had a diploma; 33 (13%) had attained a degree and finally 18 (7%) had achieved post graduate qualifications. The findings implied a high level of literacy among the respondents.

**4.5 Duration as a tea farmer**

Responses were sought on the amount of time that the respondents had been in tea farming. The responses were as presented in the table 4.5.
The analysis of events revealed that 28 (11%) had been engaged in tea farming for a duration of 1 – 5 years; 114 (46%) had been involved in tea farming for between 5 – 10 years and finally 106 (43%) had been involved in tea farming for over 10 years. These findings implied that there was sufficient experience in tea farming; hence the respondents were in a position to review performance of their produce over a period of time.

4.6 Acreage of Tea Growing
The study sought to find out the number of acres that the respondents were currently farming on. The responses were as shown in table 4.6 below

<table>
<thead>
<tr>
<th>Acreage</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>¼ - ½</td>
<td>45</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>1 – 2</td>
<td>124</td>
<td>50</td>
<td>68</td>
</tr>
<tr>
<td>3 - 5</td>
<td>59</td>
<td>24</td>
<td>92</td>
</tr>
<tr>
<td>Over 5</td>
<td>20</td>
<td>8</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>248</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
The findings showed that 45 (18%) of the respondents were currently farming tea in an area sized between ¼ - ½ an acre; 124 (50%) were farming on an area between 1 – 2 acres; 59 (24%) were farming on an area between 3 – 5 acres and finally 20 (8%) were farming on area over 5 acres. These findings implied that tea farming was predominant in the study area and the study would yield relevant results.

**Part B: Farmers’ Financial Education**

The first objective of the study was to determine how farmers’ financial education influences the performance of small scale tea farmer’s projects in Embu. As such, the researcher posed a number of questions to the respondents. These were aimed at finding out how financial education influences the performance of small scale tea farmers.

**4.7 Record Keeping**

In line with financial education, the study sought to find out whether the tea farmers kept records of their tea produce delivered to the buying centers. The responses were as shown in table 4.7.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>248</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>248</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

The findings revealed that 248 (100%) all kept records of their tea produce. This was due to the fact that the respondents were issued with a slip upon delivery to the tea buying center. This implies that the respondents kept records and were in a position to compare the yields hence could review their performance over time.
4.8 Ability to calculate profits and losses
When asked to state whether or not they were able to calculate their profits and losses, the respondents’ responses were as shown in table 4.8

**Table 4.8 Ability to calculate profits and loss**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>196</td>
<td>79</td>
<td>79</td>
</tr>
<tr>
<td>No</td>
<td>52</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>248</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

The findings showed that 196 (79%) indicated that they were able to calculate their profits; 52 (21%) stated that they couldn’t. These findings imply that while the majority of the farmers were able to calculate their profits, a number of them could not. This meant that financial education was an area the tea buyers could introduce amongst their farmers.

4.9 Training on Financial Management Skills
The respondents were asked whether they found it necessary to have financial management training. The results were as shown in the table 4.9

**Table 4.9 Training on financial management skills**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>236</td>
<td>95</td>
<td>95</td>
</tr>
<tr>
<td>No</td>
<td>12</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>248</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

236 (95%) of the respondents indicated that they supported financial training while 12 (5%) did not find it necessary to have financial training. These findings implied that
targeted financial education training programs were important since they raise financial literacy among the respondents.

**Part (C) Extent of Credit**
The second objective of the study was to determine how access to credit influences the performance of small scale tea farmer’s projects in Embu. As such, the researcher posed a number of questions to the respondents. These were aimed at finding out how access to credit influences the performance of small scale tea farmers.

**4.10 Bank Account**
When asked about whether or not they held bank accounts, the respondents’ responses were as shown in the table 4.10.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>248</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>248</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

The findings revealed that all the respondents, 248 (100%) had an active bank account. This was attributed to the fact that the tea buyers remitted all tea payments and bonuses owed to the farmers through accounts they held at the cooperative society.

**4.11 Type of Account Held**
The study further sought to find out the type of accounts that the respondents held. The findings were as shown in table 4.11.
Table 4.11 Type of Account Held

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings Account</td>
<td>14</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Current Account</td>
<td>50</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>Savings and Credit Cooperative (SACCO)</td>
<td>184</td>
<td>74</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>248</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

The analysis of findings revealed that the majority of the respondents 184 (74%) held savings and credit cooperative accounts in their tea growers’ Sacco’s. In addition, 50 (20%) held current accounts and a further 14 (6%) held savings accounts. The findings implied that the respondents saw the value of holding their funds in these accounts as they were able to properly manage their tea earnings.

4.12 Ease of accessing Loans
On the ease of accessing loans from the local banks, the findings were as shown:

Table 4.12 Ease of Accessing Loans

<table>
<thead>
<tr>
<th>Ease of accessing Loans</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Easy</td>
<td>49</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Easy</td>
<td>101</td>
<td>41</td>
<td>60</td>
</tr>
<tr>
<td>Not So Easy</td>
<td>37</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>Difficult</td>
<td>42</td>
<td>17</td>
<td>92</td>
</tr>
<tr>
<td>Very Difficult</td>
<td>19</td>
<td>8</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>248</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>
The analysis revealed the following; 49 (19%) found it very easy to access a loan from the banks; 101 (41%), who were the majority felt it was easy to access a loan; 37 (15%) said that it was not very easy to access a loan; 42 (17%) said it was difficult and finally 19 (8%) stated that it was very difficult to obtain a loan. The findings revealed that the respondents were able to access loans from the banks for various purposes. However, the ease at which these loans could be accessed varied, due to the paperwork involved, the collateral involved and the time it took to process a loan application.

4.13 Loan Providers
The study also sought to find out who the major loan providers for small scale farmers were. The responses were as shown in table 4.13

<table>
<thead>
<tr>
<th>Loan Providers</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks</td>
<td>52</td>
<td>21%</td>
<td>21</td>
</tr>
<tr>
<td>SACCOs</td>
<td>186</td>
<td>75%</td>
<td>96</td>
</tr>
<tr>
<td>Others</td>
<td>10</td>
<td>4%</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>248</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

The analysis of the findings revealed that 52 (21%) accessed loan services from banks; 186 (75%), the majority, stated that they obtained loans from SACCOs and finally 10 (4%) of the respondents indicated that they obtained loans from other sources including sourcing from their families and from money lenders. These findings revealed that financial institutions had recognized importance of small scale farmers to the economy and reached out to them, offering financial services.
4.14 **Current Loans**
The study sought to find out whether the respondents were servicing any loans at the time the study was being carried out. Findings were as shown in table 4.14 below.

**Table 4.14 Current Loans**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>218</td>
<td>88</td>
<td>88</td>
</tr>
<tr>
<td>No</td>
<td>26</td>
<td>10</td>
<td>98</td>
</tr>
<tr>
<td>Declined to Respond</td>
<td>4</td>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>248</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

The findings showed that the majority, 218 (88%) were currently servicing a loan at the local financial institution; 26 (10%) were not servicing any loans; and finally 4 (2%) of the respondents declined to respond. The findings implied that the small scale farmers did access loans, for school fees payments and to buy farm input.

4.15 **Ability to Repay the Current Loan**
The study sought to find out the ability of the respondents to repay their loans from the tea earnings. The findings were as shown in the table 4.15.
The study findings revealed that 25 (10%) of the respondents were able to repay the loans with no difficulty; 137 (55%) repaid with occasional struggles and 86 (35%) repaid with constant struggles. The ability to repay these loans was attributed to the fact that the deductions were done straight from the borrowers’ accounts, against their tea earnings. Therefore, the money that was accessible in their accounts was after total deductions were made to repay the loans.

**Part (D) Governance**

The third objective of the study was to determine how governance in KTDA influences the performance of small scale tea farmer’s projects in Embu. As such, the researcher posed a number of questions to the respondents. These were aimed at finding out how governance in KTDA influences the performance of small scale tea farmers.
4.16 Efficiency of KTDA in tea collection
The researcher sought to find out the efficiency of KTDA in tea collection at the buying centers. The responses were as shown in table 4.16:

**Table 4.16 Efficiency in Tea Collection**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Efficient</td>
<td>44</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Fairly Efficient</td>
<td>149</td>
<td>60</td>
<td>78</td>
</tr>
<tr>
<td>Not Efficient</td>
<td>55</td>
<td>22</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>248</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

The study findings revealed that 44 (18%) stated that KTDA were very efficient in tea collection; 149 (60%) stated that they were fairly efficient and finally 55 (22%) stated that they were not efficient. The farmers lamented that KTDA delayed in collecting tea at the buying centers hence inconveniencing the farmers.

4.17 Challenges in Tea Delivery
On the issue of challenges faced by farmers in tea delivery, the responses were as shown in table 4.17.

**Table 4.17 Challenges in tea delivery**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td>22</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Transport</td>
<td>76</td>
<td>31</td>
<td>40</td>
</tr>
<tr>
<td>Roads</td>
<td>66</td>
<td>27</td>
<td>67</td>
</tr>
<tr>
<td>Waiting Time</td>
<td>84</td>
<td>33</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>248</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>
A variety of challenges were faced by farmers in tea delivery, with 22 (9%) indicating labor as the biggest challenge; 76 (31%) said transport was the biggest challenge; 66 (27%) stated that roads were the biggest challenge and finally 84 (33%) stated that the time they spent at the tea buying centers was their biggest challenge. These findings imply that a myriad of challenges faced tea farmers and if not resolved, had the potential to make the farmers shun tea farming.

4.18 Tea Payments
The study also sought to find out whether the farmers received their tea payments on time. The results were as shown in the table 4.18

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>226</td>
<td>91</td>
<td>91</td>
</tr>
<tr>
<td>No</td>
<td>22</td>
<td>9</td>
<td>100</td>
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<tr>
<td>Total</td>
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The majority of the respondents, 226 (91%) indicated that they received their payments on time; 22 (9%) stated that they did not receive their payments on time. These findings implied that KTDA were prompt in facilitating payments, although some of the respondents stated that they did not get their payments on time due to the lack of mobile banking facilities. The farmers also added that the present day situation had improved as compared to the past, and that they were willing to plant more tea in their farms.
Part (E) Social Economic Characteristics
The final objective of the study was to examine how social economic characteristics influence the performance of small scale tea farmer’s projects. As such, the researcher posed a number of questions to the respondents. These were aimed at finding out how social economic characteristics influence the performance of small scale tea farmers.

4.19 Labor
The study sought to find out whether the respondents hired labor in their tea farms. The responses were as shown table

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
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</thead>
<tbody>
<tr>
<td>Yes</td>
<td>203</td>
<td>82</td>
<td>82</td>
</tr>
<tr>
<td>No</td>
<td>45</td>
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</tbody>
</table>

The findings revealed that 203 (82%) did hire labor at their tea farms, while 45 (18%) did not. The findings implied that the farmers incurred more expenses as to hire pickers especially for them that had more than one acre of tea bushes.

4.20 Preference of Tea Pickers
The researcher wanted to know whether men or women were preferred in tea picking. Table 4.20 shows the findings.
### Table 4.20 Preference of tea pickers

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>174</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>Men</td>
<td>74</td>
<td>30</td>
<td>100</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>248</strong></td>
<td><strong>100</strong></td>
<td></td>
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</tbody>
</table>

The findings revealed that 174 (70%) preferred women to men; whilst 74 (30%) preferred men to women pickers. The findings imply that there are a lot of female casual laborers in the study area.

#### 4.21 Factors Influencing the Performance Of Small Scale Tea Farmers

The researcher sought to establish the extent to which the key factors under investigation influenced the performance of small scale tea farmers. Table 4.21 shows the findings.

### Table 4.21 Factors influencing the performance of small scale tea farmers

<table>
<thead>
<tr>
<th>Factor</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Cumulative Percentage (%)</th>
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</thead>
<tbody>
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<td>Farmers’ financial education</td>
<td>80</td>
<td>32</td>
<td>32</td>
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<td>Extent of credit access</td>
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<td>17</td>
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<td>Governance in KTDA</td>
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<td>39</td>
<td>88</td>
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<tr>
<td>Social Economic Characteristics</td>
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<td><strong>100</strong></td>
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</tbody>
</table>
The responses indicated that the majority of the respondents, 97 (39%) felt that the governance in KTDA was the most important factor influencing the performance of small scale tea farmers; 43 (17%) stated extent of credit access as the most important factor; 80 (32%) indicated that farmers’ financial education was the most important factor and finally 28 (12%) indicated that social economic characteristics was the most important factor.
CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction
This chapter presents the summary of findings and the conclusions and recommendations drawn from the study.

5.1 Summary of the Findings
This section presents the summary of findings as drawn from the responses provided by the respondents.

5.2 Farmers’ financial education and performance of small scale tea farmers
Financial education is the study about the management of money and the set of skills and knowledge that allows an individual to make informed and effective decisions with all of their financial resources. In the study, the researcher identified debt management, record keeping and risk management as the indicators of financial education. The subsequent findings revealed that 248 (100%) all kept records of their tea produce. This was due to the fact that the respondents were issued with a slip upon delivery to the tea buying center. Secondly, the findings showed that 196 (79%) indicated that they were able to calculate their profits; 52 (21%) stated that they couldn’t. These findings imply that while the majority of the farmers were able to calculate their profits, a number of them could not. Lastly, 236 (95%) of the respondents indicated that they supported financial training while 12 (5%) did not find it necessary to have financial training. These findings implied that targeted financial education training programs were important since they raise financial literacy among the respondents.
5.3 Extent of credit access and the performance of small scale tea farmers

Credit plays an important role in agricultural development and expansion of credit programs will have beneficial effects on agricultural production and the incomes of small farmers. Bank access, availability of a bank account and credit worthiness were investigated. The findings revealed that all the respondents, 248 (100%) had an active bank account. This was attributed to the fact that the tea buyers remitted all tea payments and bonuses owed to the farmers through accounts they held at the cooperative society.

The analysis of findings revealed that the majority of the respondents 184 (74%) held savings and credit cooperative accounts in their tea growers’ Sacco’s. In addition, 50 (20%) held current accounts and a further 14 (6%) held savings accounts. The findings implied that the respondents saw the value of holding their funds in these accounts as they were able to properly manage their tea earnings. The analysis revealed the following; 49 (19%) found it very easy to access a loan from the banks; 101 (41%), who were the majority felt it was easy to access a loan; 37 (15%) said that it was not very easy to access a loan; 42 (17%) said it was difficult and finally 19 (8%) stated that it was very difficult to obtain a loan. The findings revealed that the respondents were able to access loans from the banks for various purposes. Moreover, the analysis of the findings revealed that 52 (21%) accessed loan services from banks; 186 (75%), the majority, stated that they obtained loans from SACCOs and finally 10 (4%) of the respondents indicated that they obtained loans from other sources including sourcing from their families and from money lenders. These findings revealed that financial institutions had recognized importance of small scale farmers to the economy and reached out to them, offering financial services. Nevertheless, the findings showed that the majority, 218 (88%) were currently servicing a loan at the local financial institution; 26 (10%) were not
servicing any loans; and finally 4 (2%) of the respondents declined to respond. The findings implied that the small scale farmers did access loans, for school fees payments and to buy farm input. Finally, the study findings revealed that 25 (10%) of the respondents were able to repay the loans with no difficulty; 137 (55%) repaid with occasional struggles and 86 (35%) repaid with constant struggles. The ability to repay these loans was attributed to the fact that the deductions were done straight from the borrowers’ accounts, against their tea earnings. Therefore, the money that was accessible in their accounts was after total deductions were made to repay the loans.

5.4 Governance in KTDA and the performance of small scale tea farmers

KTDA has come under heavy complaints from producers for poor service delivery at the collection points, an issue that has greatly affected performance of the farmers and influenced performance. As such the study sought to find out the influence of governance of KTDA on the performance of small scale tea farmers. The leadership style, delivery of services and tea payments were investigated. The study findings revealed that 44 (18%) stated that KTDA were very efficient in tea collection; 149 (60%) stated that they were fairly efficient and finally 55 (22%) stated that they were not efficient. There were complains that KTDA delayed in collecting tea at the buying centers hence inconveniencing the farmers. The findings revealed that a variety of challenges were faced by farmers in tea delivery, with 22 (9%) indicating labor as the biggest challenge; 76 (31%) said transport was the biggest challenge; 66 (27%) stated that roads were the biggest challenge and finally 84 (33%) stated that the time they spent at the tea buying centers was their biggest challenge. These findings imply that a myriad of challenges faced tea farmers and if not resolved, had the potential to make the farmers shun tea farming. Lastly, the majority of the respondents, 226 (91%) indicated that they received
their payments on time; 22 (9%) stated that they did not receive their payments on time. These findings implied that KTDA were prompt in facilitating payments, although some of the respondents stated that they did not get their payments on time due to the lack of mobile banking facilities. The farmers also added that the present day situation had improved as compared to the past, and that they were willing to plant more tea in their farms.

5.5 Social Economic characteristics and the performance of small scale tea farmers
Various factors such as experience, education, occupation of parents, gender, race, age, and entrepreneurial goals influence the performance of small scale projects. From the study, the findings revealed that 203 (82%) did hire labor at their tea farms, while 45 (18%) did not. The findings implied that the farmers incurred more expenses as to hire pickers especially for them that had more than one acre of tea bushes. The findings further revealed that 174 (70%) preferred women to men; whilst 74 (30%) preferred men to women pickers. The findings imply that there are a lot of female casual laborers in the study area. Lastly, the responses indicated that the majority of the respondents, 97 (39%) felt that the governance in KTDA was the most important factor influencing the performance influencing the performance of small scale tea farmers; 43 (17%) stated extent of credit access as the most important factor; 80 (32%) indicated that farmers’ financial education was the most important factor and finally 28 (12%) indicated that social economic characteristic cs was the most important factor.

5.6 Conclusions
The performance of small scale farmers in the tea sector depends on a number of factors. In general, small holder tea sub-sector has grown tremendously since Kenya gained independence. There is better production and management of the crop due to advances in
crop husbandry. However, the sector is dogged by challenges of corruption and mismanagement, which have diminished the farmers’ returns. Access of financial education has significantly improved the literacy levels of the farmers. It has enabled the farmers to realize the progress they are making as regards tea farming. The tea industry has necessitated the growth of micro finance institutions offering financial solutions to the small holder farmers. Proper governance in the tea industry will ensure stability in market prices and the farmers’ earnings for the tea volumes sold will be good enough for farmers to meet their costs of production and make some profit.

5.7 Recommendations
i. KTDA, in conjunction with the local tea growers’ SACCOs should consider providing innovative credit schemes to include farmers who may lack collateral.

ii. Sufficient crop husbandry programs can be introduced to the farmers to help them increase their yields, thus translating into more earnings.

iii. The government should champion the establishment of strong farmer – led organizations such as cooperatives to help the farmers to access credit facilities.

iv. Lending policies of the community level financial institutions should be compatible with the borrowing behaviours of the small scale tea growers.

v. Training of farmers should be encouraged and it should focus on basic accounting and preparation of farm accounts, budgeting and cost control as well as insurance.

vi. The government and stakeholders of the tea industry should give an attention to the marketing factors to ensure they are favorable to the tea farmers. This includes liberalizing the marketing of tea to both small-scale and large-scale farmers to increase competition.
5.8 Suggestions for Further Studies
For more conclusive results, further studies could be done with an aim of establishing other factors that influence the performance of small scale tea farmers’ projects. These studies should also interview both the farmers as well as the buyers. By so doing, it will be possible to compare and authenticate what the farmers and the buyers consider important in the tea industry. For this reason, this study cannot be assumed to be totally conclusive. The researcher therefore encourages further research on what factors may influence the performance of small scale tea farming projects.
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Sahrawat R., (2010), Financial Inclusion From Obligation to Opportunity, Tata Consultancy Service Ltd.

Sanne V. W.,(2008), Sustainability Issues in the Tea Sector A Comparative Analysis of Six Leading Producing Countries, Stichting Onderzoek Multinationale Ondernemingen (Centre for Research on Multinational Corporations).


APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

University of Nairobi,
P.O Box 30197,
Nairobi Kenya

Dear respondent,

Re: Request for permission to carry out research study.

I am a graduate student undertaking a master’s degree in Project planning and Management in the University of Nairobi and I am currently conducting a research on factors influencing the performance of small scale tea farmer’s projects in Embu north sub county, Embu county kenya You have been selected to assist in providing the required information because your views are considered important to this study. I am therefore kindly requesting you to fill this questionnaire. Please note that any information given will be treated with utmost confidentiality and will only be used for the purpose of this study.

YOURS FAITHFULLY;

LINDA MUTURI WAWIRA
APPENDIX II: QUESTIONNAIRES FOR TEA GROWERS

The aim of this questionnaire is to study the factors influencing the performance of small scale tea farmer’s in Embu North Sub County, Embu County Kenya. This questionnaire is required to be filled with exact relevant facts as much as possible. All data included in this questionnaire will be used only for academic research. After all questionnaires are collected and analyzed, interested participants of this study will be given feedback on the overall research results

Part (A): general information: Please tick as appropriate:

1. Please indicate your gender  Male [ ] Female [ ]
2. Please indicate your age.
   (a) Below 25 [ ] (b) 26 – 35 [ ] (c) 36 – 50 [ ] (e) above 50 [ ]
3. What is your marital status? (a) Married [ ] (b) Single [ ]
4. What is your highest level of education-------------------------
5. For how many years have you been a tea farmer?  1 - 5 [ ] 5 - 10 [ ] 10 – 15 [ ]
6. How many acres are you currently farming on?
   ¼ - ½ [ ] 1 – 2 [ ] 3 – 5 [ ] 5 and above [ ]

Part (B) Farmers Financial Education Please tick as appropriate:

7. Do you keep records of your tea production? Yes [ ] No [ ]
8. If yes for the question above, kindly rate your ability to record your tea production.
Can record [ ] cannot record [ ] I doubt my ability to record [ ] Not sure that I record [ ]

9. Are you able to calculate your profits and losses? Yes [ ] No [ ]

10. If yes for the question above, kindly rate your ability to calculate your profit and loss.
   I can record and compile [ ] I cannot record or compile [ ]
   I am not sure I can record or compile [ ]

11. In your opinion is it necessary to have any follow up on financial management skills training? Yes [ ] No [ ]

**Part (C) Extent of Credit Access** Please tick as appropriate

12. Do you have a bank account? Yes [ ] No [ ]

13. If yes, what kind of account do you operate?
   Savings Account [ ] Current Account [ ] Savings and Credit Cooperative (SACCO) Account [ ]

14. How easy is it for you to access a loan from your bank? Very Easy [ ] Easy [ ] Not so easy [ ] Difficult [ ] Very Difficult [ ]

15. Who are the major loan providers for the small scale farmers? Banks [ ] SACCOs [ ] Others [ ]
   If others, kindly state which one ______________________

16. Are you currently servicing any loans? Yes [ ] No [ ] I decline to respond [ ]

17. Kindly state your ability to repay your current loan, with your tea earnings?
   No difficulty [ ]
   Able with occasional struggles [ ]
   Able with constant struggles [ ]
   Falls behind on repayments occasionally [ ]
   Falls behind on payments regularly [ ]
   Don’t know [ ]
18. Which of the following credit attributes made you choose your financier?

- Repayment period
- Repayment Period
- Interest rate
- Repayment flexibility
- Loan review period
- Collateral

**Part (D) Governance in KTDA** Please tick as appropriate

19. How efficient is KTDA in tea collection? ______________________

20. What are the major challenges you face in tea delivery? ________________

21. Do you receive your tea payments on time? Yes [ ] No [ ]

22. If given the choice, and with your experience selling your produce to KTDA, would you plant more tea on your farm? Yes [ ] No [ ]

For your answer above, please state why. __________________________

**Part (E) Social Economic Characteristics** Please tick as appropriate

23. Do you hire labour? Yes [ ] No [ ]

24. Do you prefer employing women or men for tea picking?

25. For the question above, kindly state why. __________________________

26. How you rank the importance of the socio economic characteristics on tea farming and subsequent performance of the tea farming project?

[ ] [ ] [ ] [ ] [ ] [ ]
e) Extent which the study the factors influencing the performance of small scale tea farmers in Embu North Sub County, Embu County, Kenya.

27. To what extent do the following factors influence the performance of small scale tea farmers? Use a scale of 1-5 where 1= To a very low extent, 2= To a low extent, 3= To a moderate extent, 4= To a great extent and 5= To a very great extent. Please tick the appropriate box).

<table>
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<tr>
<th>Factors Influencing The Performance Of Small Scale Tea Farmers</th>
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<th>2</th>
<th>3</th>
<th>4</th>
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<td>Governance in KTDA</td>
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<td>Social Economic Characteristics</td>
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</table>
APPENDIX III INTERVIEW SCHEDULES
The researcher seeks to establish factors influencing the performance of small scale tea farmer’s in Embu North Sub County, Embu County Kenya. Senior employees in the tea buying centres are best placed to provide answers on the performance of small scale tea farmers since they deliver the produce to the tea buying centres. To achieve this, the researcher will subject teachers to an interview to gather data for analysis. Kindly spare some time to provide the information as accurately as possible. Any information supplied will be strictly confidential and will be used for academic purposes only.

1. For how long have you worked in this Factory?
____________________________

2. What is your position in the Factory?
____________________________________

3. How many tea buying centres do you have for this factory?
_______________

4. How many farmers do you have supplying green tea leaves for this factory?
______________________________________________________

5. How many green leaf collection vehicles do you have?
________________________

6. In your opinion, given that the majority of tea farmers in the area are small scale, is the supply sufficient?
____________________________________________________

7. Has the liberalization of the tea industry opened new markets for your processed teas?
____________________________________________________

8. Have tea prices increased since liberalization of the tea sector?
________________________
9. Has this reflected on the tea earnings of the farmers?

10. Are the dividend payouts / bonuses offered to farmers sufficient considering the effort they put in their farms?

11. Has the factory taken any steps to educate farmers on how to manage their finances?
# APPENDIX IV: WORK PLAN

<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIVITIES</th>
<th>Research topic</th>
<th>Chapter One</th>
<th>Literature review</th>
<th>Research Methodology</th>
<th>Data Analysis</th>
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APPENDIX V: MAP OF TEA GROWING REGIONS IN KENYA