FACTORS AFFECTING PERFORMANCE OF FAMILY OWNED MATATU BUSINESSES IN NAIROBI; KENYA

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A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF MANAGEMENT AND LEADERSHIP IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF EXECUTIVE MASTER OF BUSINESS ADMINISTRATION (EMBA) OF THE MANAGEMENT UNIVERSITY OF AFRICA.

OCTOBER, 2015
DECLARATION

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

Joseph Kipkemoi Chumba October, 2015

_________________________ ______________________________

DATE

EMBA 07/0111/02/2014

DECLARATION BY SUPERVISOR

This research thesis has been submitted with my approval as the university supervisor.

Miss Bernadette Mutinda October, 2015

_________________________ ______________________________

Signature Date
DEDICATION

I dedicate this research work to the Management of various SACCOS in the four spheres of Nairobi County under research together with owners of Matatu for their sound management and policies in trying to conform to NTSA and SASRA regulations. They not only are able to sustain their families but also contribute greatly to the national economy through committing heavily their savings and giving their insurmountable time in managing the operational processes. The government efforts through their security apparatus is hereby noted for weeding out to manageable level the illegal groupings that were earlier on a menace to this kind of business.
ACKNOWLEDGEMENT

I appreciate and gratify God for life and the good health He gave me throughout the assignment period. Through Him all things were made possible.

I wish to acknowledge and recognize the invaluable moral support accorded to me by my family members; Mrs. Norah Chumba, Joy, Brian, Victor and Debra. They indeed endured many days of my absence as I tried to complete the research. To my parents, Jonathan and Rebecca, your words of encouragement in every step all round merit special mention. To my many friends, who contributed in one way or another, I appreciate and extend my outmost love to you all.

To my very able supervisor, Lady Bernadette Mutinda, I thank her for the patience, advice and unswerving support throughout the period of research. I am greatly indebted to her for the guidance, support and timely comments to this research project. To the teaching fraternity of The Management University of Africa; your words of encouragement and pieces of advice were very crucial to this end. To my colleagues in the same journey, your continued urge for us to move on as a team is vocally recognized for without the team effort things would not have worked this much.
ABSTRACT

Matatus are the informal industry in Kenya that provide service of mobility to millions of people each day and are essentially the backbone of the transportation system in Kenya. They play an important role in integrating the various sectors in the economy. Matatus account for an estimated 80% of public transport in the country (Republic of Kenya, 2002). While this is appreciated, there is still lack of proper management skills by the owners especially in the family owned Matatu business, failure by the regulatory authorities in managing their part, and excessive interference by various tertiary unauthorized groups. Both the investors and their employees are not trained for the long term need of the industry. The said investors are not economically and technically capable of dealing with the dynamics of frequent changes that take place within the industry. The employees too do not provide the much needed after sales service to their clients who happens to be the commuters. The general objective of the study was to determine on the factors affecting the performance of family owned Matatu business in Nairobi, Kenya. The specific objectives were; to establish the effect of management style in performance of family owned Matatu business, determine the effect of entrepreneurial culture in this family owned Matatu business; examine the effect of financial access and establish the effect of technology adoption on the performance of family owned Matatu business in Nairobi, Kenya; Descriptive design was used in the study. The target population of the study was made up of 7000 Matatu owners in Nairobi. A sample of 364 registered Matatu owners were picked using random sampling and questionnaires given out and analysis will be performed using SPSS version 23.0. Both primary and secondary data were collected and used. The research yielded quantitative and qualitative data descriptive statistics such as, mean from frequencies and inferential statistics (regression and correlation analysis) were used to perform data analysis. A multiple linear regression analysis model was used to test and link the variable. The study found out that management style, entrepreneurship culture, financial access and technology adoption had a positive and significant effect on the performance of family owned Matatu Business in Nairobi. The study concluded that management style, entrepreneurial culture, financial access and technology adoption is a crucial field within the environment of the Matatu business. While collecting the primary data there arose a fifth element; the need to include the regulatory bodies as specific objective. It is then recommended for further research in the concluding remarks.
# TABLE OF CONTENT

DECLARATION........................................................................................................... ii
DEDICATION............................................................................................................. iii
ACKNOWLEDGEMENT.............................................................................................. iv
ABSTRACT................................................................................................................. v
LIST OF TABLES....................................................................................................... x
LIST OF FIGURES................................................................................................... xi
ACRONYMS AND ABBREVIATIONS ......................................................................... xii
DEFINITION OF TERMS.......................................................................................... xiii

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

INTRODUCTION....................................................................................................... 1
  1.0 Background of the Study.................................................................................. 1
  1.1 Statement of the Problem................................................................................ 4
  1.2 Objectives of the Study................................................................................... 5
  1.3 Research Questions.......................................................................................... 5
  1.4 Significance of the study.................................................................................. 5
    1.4.1 Management............................................................................................. 5
    1.4.2 Entrepreneurs.......................................................................................... 6
    1.4.3 Government............................................................................................. 6
  1.5 Scope of Study.................................................................................................. 6
  1.6 Chapter Summary............................................................................................. 6

CHAPTER TWO ......................................................................................................... 7

LITERATURE REVIEW ............................................................................................ 7
  2.0 Introduction....................................................................................................... 7
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Theoretical Literature Review</td>
<td>7</td>
</tr>
<tr>
<td>2.1.1</td>
<td>Resource Based View Theory</td>
<td>7</td>
</tr>
<tr>
<td>2.1.2</td>
<td>Scientific Theory of Management</td>
<td>8</td>
</tr>
<tr>
<td>2.1.3</td>
<td>Social-Cultural Approach Theory of Entrepreneurship</td>
<td>9</td>
</tr>
<tr>
<td>2.1.4</td>
<td>Rogers diffusion of innovation Theory</td>
<td>9</td>
</tr>
<tr>
<td>2.2</td>
<td>Empirical Literature Review</td>
<td>10</td>
</tr>
<tr>
<td>2.2.1</td>
<td>Management style and performance of family owned Matatu business</td>
<td>10</td>
</tr>
<tr>
<td>2.2.2</td>
<td>Entrepreneurial culture and performance of family owned Matatu business</td>
<td>12</td>
</tr>
<tr>
<td>2.2.3</td>
<td>Financial access and performance of family owned Matatu business</td>
<td>13</td>
</tr>
<tr>
<td>2.2.4</td>
<td>Technology adoption and performance of family owned Matatu business</td>
<td>14</td>
</tr>
<tr>
<td>2.3</td>
<td>Conceptual Framework</td>
<td>15</td>
</tr>
<tr>
<td>2.4</td>
<td>Operationalization of Variables</td>
<td>18</td>
</tr>
<tr>
<td>2.5</td>
<td>Research Gaps</td>
<td>20</td>
</tr>
<tr>
<td>2.6</td>
<td>Chapter Summary</td>
<td>21</td>
</tr>
</tbody>
</table>

**CHAPTER THREE** | ... | 22

**RESEARCH DESIGN AND METHODOLOGY** | ... | 22

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>Introduction</td>
<td>22</td>
</tr>
<tr>
<td>3.1</td>
<td>Research design</td>
<td>22</td>
</tr>
<tr>
<td>3.2</td>
<td>Target population</td>
<td>22</td>
</tr>
<tr>
<td>3.3</td>
<td>Sample Size</td>
<td>23</td>
</tr>
<tr>
<td>3.4</td>
<td>Data collection techniques and instruments</td>
<td>24</td>
</tr>
<tr>
<td>3.5</td>
<td>Data collection procedure</td>
<td>25</td>
</tr>
<tr>
<td>3.6</td>
<td>Pilot testing</td>
<td>25</td>
</tr>
<tr>
<td>3.6.1</td>
<td>Validity Test</td>
<td>25</td>
</tr>
</tbody>
</table>
3.6.2 Reliability Test ........................................................................................................... 25
3.7 Data Analysis .................................................................................................................. 26
3.8 Ethical Considerations ..................................................................................................... 27
    3.8.1 Voluntary Participation .......................................................................................... 27
    3.8.1 Informed Consent, confidentiality and Privacy ......................................................... 27
3.9 Chapter Summary ............................................................................................................ 27

CHAPTER FOUR ......................................................................................................................... 28
ANALYSIS, RESULTS AND DISCUSSIONS ........................................................................... 28
4.0 Introduction ....................................................................................................................... 28
4.1 Response Rate ................................................................................................................. 28
4.2 Demographic Characteristics .......................................................................................... 28
    4.2.1 Gender of the respondents ..................................................................................... 28
    4.2.2 Age of the respondents ......................................................................................... 29
    4.2.3 Highest Level of Education .................................................................................. 30
    4.2.4 Duration of being a Matatu operator .................................................................... 30
4.3 Descriptive Statistics ....................................................................................................... 31
    4.3.1 Management style .................................................................................................. 31
    4.3.2 Entrepreneurial Culture ....................................................................................... 32
    4.3.3 Financial access .................................................................................................... 33
    4.3.4 Technology adoption ............................................................................................. 34
4.4 Inferential Statistics ....................................................................................................... 35
    4.4.1 Correlation Analysis .............................................................................................. 35
    4.4.2 Regression Analysis ............................................................................................... 36

CHAPTER FIVE .......................................................................................................................... 39
LIST OF TABLES

Table 3.1: Population of the study ........................................................................................................23
Table 3.1: Sample Size ..........................................................................................................................24
Table 4.1: Response Rate ......................................................................................................................28
Table 4.2: Management Style ..............................................................................................................32
Table 4.3: Entrepreneurial Culture .....................................................................................................33
Table 4.4: Financial access ..................................................................................................................34
Table 4.5: Technology adoption .........................................................................................................35
Table 4.6: Correlation Matrix ..............................................................................................................36
Table 4.7: Model Fitness ......................................................................................................................37
Table 4.8: Analysis of Variance ..........................................................................................................37
Table 4.9: Regression of Coefficients .................................................................................................38
LIST OF FIGURES

Figure 2.1: Diagram showing relationship Conceptual framework.................................................. 17
Figure 2.2: Operationalization .................................................................................................. 19
Figure 4.1: Gender of Respondents .......................................................................................... 29
Figure 4.2: Age of Respondents .............................................................................................. 29
Figure 4.3: Highest level of Education ..................................................................................... 30
Figure 4.4: Duration of being a Matatu operator ....................................................................... 31
ACRONYMS AND ABBREVIATIONS

ERP- Economic Reform Programme
KBS- Kenya Bureau of Statistics
KRA- Kenya Revenue Authority
MOA- Matatu Owners Association
MSEs- Micro and Small Enterprises
MVOA- Matatu Vehicle Association
MWA- Matatu Welfare Association
PSV- Public Service Vehicles
SACCO- Savings and Credit Co-operative
SBA- Small Business Administration
SPSS - Statistical Program for Social Sciences
TLB - Transport and licensing board
ROI- Richard Owens Investment
NTSA- National Transport Safety authority
SASRA- Sacco Societies Regulatory Authority
DEFINITION OF TERMS

**Entrepreneurship** - is a behavioral characteristic related to perceiving and creating new economic opportunities in the face of risks and uncertainties (Zainol & Ayadurai, 2011)

**Entrepreneurship culture** - is essentially the culture that is needed to nurture and develop an entrepreneur (Zainol & Ayadurai, 2011)

**Finance** - is a field that deals with the allocation of assets and liabilities over time under conditions of certainty and uncertainty. Finance can also be defined as the science of money management (Blasco, & Teruel, 2009)

**Management style** - is characteristic ways of making decisions and relating to subordinates (Ligthelm, 2002)

**Matatus** - They are Mini-buses used for public transport in Kenya. They include 14, 25, 29, 33 and 36 Seater minibuses. The name originates from when the fare on these vehicles was a flat rate of 30 cents (Chitere, 2004)

**Operators** - They are the drivers and conductors working in the Matatu (Chitere, 2004)

**Technology** - is the collection of techniques, methods or processes used in the production of goods or services or in the accomplishment of objectives, such as scientific investigation (Palacios, Juste, Redondo, & Grünhagen, 2014)
CHAPTER ONE
INTRODUCTION

Introduction

This chapter of the study contains the background of the study, statement of the problem, objectives of the study, research questions, significance of the study, scope of the study and limitation of the study.

1.0 Background of the Study

The creation of a country’s wealth and dynamism depends upon the competitiveness of its firms and this, in turn, relies fundamentally on the capabilities of its entrepreneurs. The essence of the modern firm lies in the specialization of functions. The businessmen that manage economic activity are, in the strictest sense, managers and entrepreneurs, the latter in a double sense: the individual businessman (independent) and the corporate entrepreneur who, without participating significantly in terms of capital, controls the firm (Nyasetia, 2013).

Many sectors of the economy will offer opportunities to investors and the transport industry is one such an avenue. Transport industry offers much diversity that encompasses wide areas such as rail transport, air transport, motor vehicle transport and transport by sea. In investing capital to a business, the focus of an entrepreneur is purely to succeed and to have the business live to be enjoyed by the future generation. Researchers have put performance stories of new business living to envisage the vision of the founders to be about 50％(Klein, & Sorra, 1996).

According to statistics published by the Small Business Administration (SBA), seven out of ten new employer establishments survive at least two years and 51 percent survive at least five years. This is a far cry from the previous long-held belief that 50 percent of businesses fail in the first year and 95 percent fail within five years. The extra challenge would be how many of those which perform live to be inherited by a future generation past the 5th year. One such an enterprise that is domiciled in the transport industry is the much hyped public transport. While in other parts of the world the type of enterprise is performance story, the same performance has not been emulated in Kenya. There are multiple of contributing factors that negate such in this industry that has been christened as chaotic sector (Klein, & Sorra, 1996).
Matatu entry in public transport in Kenya can be dated to the mid-1950s, when they started operating in Nairobi and were considered an illegal commercial entity. The Matatus faced harassment from the Nairobi City Authorities and the Kenya Bus Service, a major transport monopoly in Nairobi then. It had to take a presidential intervention for the Matatu to break in the transport niche that was the domain of a multi-national company working in collaboration with the local civic authority. Since then the Matatu industry has grown to take full control of the public transport system in Kenya (Kwenji, 2013). The government has tried to streamline the sector by introducing very stringent regulations such as the famous Michuki laws, the traffic amendment act of 2012 and the operations of the members through SACCOS. The sector has had other challenges such as the illegal gangs menace and the deep rooted corruption that deny the operators funds to further the sector (Kwenji, 2013).

The Matatu industry in Kenya dates back in the pre colonial period. It was informal sector and most entrepreneurs had only one Matatu which they used to carry passengers. There were other multinational companies which run at the time such as the Kenya bus service. The Matatu industry have seen through hard times where the government have come up with very severe legislations such as the famous Michuki Rules, the amended traffic rules of 2012 and the Kenya transport policy. The Kenya transport policy proposes the banning of 14 seater Nissan Matatus. The Kenya government is on the other hand urging the operators to upgrade with 25 seats and above minibuses. This is an attempt to reduce the traffic jams witnessed in Nairobi in the last few years (Graeff, 2012). The performance of the Matatu industry may be looked at through the growth indicators. These indicators could be the number of new Matatus that enter the designated routes, the profitability of the sector, the lifespan of the Matatus, the number of jobs the sector creates every year, the growth of the Matatu SACCOs and the lawlessness in the sector (Chitere, 2004).

Family owned Matatu business are an often overlooked form of ownership. As family owned Matatu business expands from their entrepreneurial beginnings, they face unique performance and governance challenges. The generations that follow the founder, for example, may insist on running the company even though they are not suited for the job. And as the number of family shareholders increases exponentially generation by generation, with few actually working in the business, the commitment to carry on as owners can’t be taken for granted. Indeed, less than 30
percent of family owned Matatu business survives into the third generation of family ownership. Those that do, however, tend to perform well over time compared with their corporate peers, according to recent McKinsey research. Their performance suggests that they have a story of interest not only to family businesses around the world, of various sizes and in various stages development, but also to companies with other forms of ownership (Caspar, & Elstrodt, 2010).

Over decades, family develop oral and written agreements that address issues such as the composition and election of the company’s board, the key board decisions that require a consensus or a qualified majority, the appointment of the CEO, the conditions in which family members can (and can’t) work in the business, and some of the boundaries for corporate and financial strategy. The continual development and interpretation of these agreements, and the governance decisions guided by them, may go under for many reasons, including family conflicts over money, nepotism leading to poor management, and in fighting over the performances and returns. A family council representing different branches and generations of the family, for instance, may be responsible to a larger family assembly used to build consensus on major issues (Caspar, & Elstrodt, 2010).

Long-term survivors usually share a meritocratic approach to management. There’s no single rule for all, however policies depend partly on the size of the family, its values, the education of its members, and the industries in which the business competes. For example, the Australia based investment business ROI Group, which now spans four generations of the Owens family, encourages family members to work outside the business first and gain relevant experience before seeking senior-management positions at ROI. Any appointment to them must be approved both by the owners’ board, which represents the family, and the advisory council, a group of independent business advisers who provide strategic guidance to the board. As families grow and ownership fragments, family institutions play an important role in making continued ownership meaningful by nurturing family values and giving new generations a sense of pride in the company’s contribution to society. Family offices, some employing less than a handful of professionals, others as many as 40, can bring together family members who want to pursue common interests, such as social work, often through large charity organizations linked to the family. The office may help organize regular gatherings that offer large families a chance to bond, to teach young members how to be knowledgeable and productive shareholders, and to
vote formally or informally on important matters. It can also keep the family happy by providing investment, tax, and even concierge services to its members (Caspar, & Elstrodt, 2010).

1.1 Statement of the Problem

Matatu business plays two very vital roles to the public, one in provision of transport services and two a source of economic income to the many in the country. However these two major benefits have remained a mirage due to lack of proper management skills by the owners especially in the family owned Matatu business, total failure by the regulatory authorities in properly playing their part, and excessive interference by various tertiary unauthorized groups. Both the investors (family) and their employees are not trained or well developed for the long term need of the industry. Lack of proactiveness, innovativeness, risk taking and overall poor entrepreneurial culture/orientation has negatively impacted on the Matatu industry. The said investors are not economically and technically capable of dealing with the dynamics and frequent changes that take place within the industry and neither do their employees provide the much needed after sales service to their clients who are the passengers.

1.2 Objectives of the Study

The broad objective of the study was to examine the factors affecting the performance of family owned Matatu business in Nairobi, Kenya.

The specific objectives of the study were:

1. To establish the effect of management style on the performance of family owned Matatu Business in Nairobi, Kenya.
2. To determine the effect of entrepreneurial culture on the performance of family owned Matatu Business in Nairobi, Kenya.
3. To examine the effect of financial access on the performance of family owned Matatu Business in Nairobi, Kenya.
4. To establish the effect of technology adoption on the performance of family owned Matatu Business in Nairobi, Kenya.

1.3 Research Questions

1. What is the effect of management style on the performance of family owned Matatu Business in Nairobi, Kenya?
2. What is the effect of entrepreneurial culture on the performance of family owned Matatu Business in Nairobi, Kenya?
3. What is the effect of financial access on the performance of family owned Matatu Business in Nairobi, Kenya?
4. What is the effect of technology adoption on the performance of family owned Matatu Business in Nairobi, Kenya?

1.4 Significance of the study

1.4.1 Management

Matatu business development plays an important role in shaping our society both socially and economically. The findings from the study will assist contribute to the pool of additional literature in the area of Matatu performance focusing on the major factors leading to good entrepreneurial performance in this kind of transport business.
1.4.2 Entrepreneurs

At the Small and Medium Enterprises level, the study will assist sensitize entrepreneurs in this particular sector to understand what factors shape entrepreneurial good practice which would in turn lead to positive business performance. The entrepreneurial study on performance upon completion will contribute towards a better understanding of the sources of competitive advantage for family businesses.

1.4.3 Government

The findings of this study will enrich existing knowledge by adding to the pool of information available in regard to the topic under study. Hence, it will be of interest to both researchers and academicians who seek to explore and carry out further investigations. It will provide basis for further research since it has not covered all the determinants of performance/failures of family owned Matatu business.

1.5 Scope of Study

This study aimed to analyze and identify the factors affecting the family owned business and the reasons as to why many of them fail in spite of the business being very profitable.

More importantly, the study aimed at finding solutions to the problem identified earlier. The study was carried in Nairobi. The respondents were sampled family owned Matatu owners.

1.6 Chapter Summary

This chapter is an introduction of the research proposal and defined the background of the study and the statement of the problem. It followed further by briefly stating the purpose of the research work. The chapter also showed the research questions that were used to guide the study as well as examine the various factors responsible for the existing problem. The justifications of the study and scope have also been presented within the chapter as well as the importance and the scope of the study. The next chapter highlighted the literature of the study topic while Chapter three discussed the methodology to be used for this specific study. Chapter four tabulated the data collected while Chapter five outlined the major findings, conclusions as well as recommendations.
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This section presented the theoretical review, empirical review and theoretical framework of the study. The review provided the previous contributions of different authors to the problem with their findings providing a basis for identifying the research gaps which were the entry point for this survey.

2.1 Theoretical Literature Review

In this section, the public interest theory of regulation, total quality management theory and Theory of Performance were examined. The three theories provided a basis for people’s motivation to performance of duty.

2.1.1 Resource Based View Theory

The resource-based perspective argues that sustainable competitive advantage (SCA) is generated by the unique bundle of resources at the core of the firm (Colbert, 2004). Resources are said to have a sustainable competitive advantage if they are rare, valuable, hard to copy and not substitutable. In other words, the resource-based view describes how business owners build their businesses from the resources and capabilities that they currently possess or can acquire (Dollinger, 2009). The term resource was conceived broadly as anything that can be thought of as strength or a weakness of the firm. The theory addresses the central issue of how superior performance can be attained relative to other firms in the same market and posits that superior performance results from acquiring and exploiting unique resources of the firm. Implicit in the resource-based perspective is the centrality of the venture’s capabilities in explaining the firm’s performance.

Resources have been found to be important antecedents to products and ultimately to performance. The resource based theory recognizes six types of resources: physical, reputation, organizational, financial, intellectual and technological. These can also be called the profit factors. These types are broadly drawn and include all assets, capabilities, organizational process, firm attributes, information and knowledge. Physical resources such things like land, energy resources (oil resources, water etc), raw materials (minerals etc). Physical resources can be a
source of Sustainable Competitive Advantage, if they have the four attributes described above: Rare, Hard to copy, Non-substitutable and valuable. Reputational resources are mainly the perceptions that people in the firm's environment have of the company. Reputation can exist at the product level as a brand loyalty or at the corporate level as a global image. Many organizations maintain high reputation over a long period of time. The value of reputational relationship goes beyond personal relationship because these reputations continue even after the individuals originally responsible are no longer around.

This theory was relevant to study topic because it informed financial access variable. Based on the resource-based theory, it is plausible to argue that previous entrepreneurial experience is a valuable resource to the family business. Research shows that an entrepreneur's management skills contribute to venture performance and growth. The propensity of the entrepreneur to employ and apply a variety of skills has been recognized.

2.1.2 Scientific Theory of Management

The founding father of scientific management theory is Frederick W. Taylor (1856-1915). He was an American inventor and engineer. His two most important works were Shop Management (1903) and The Principles of Scientific Management (1911). Scientific management theory seeks to improve an organization's efficiency by systematically improving the efficiency of task completion by utilizing scientific, engineering, and mathematical analysis. The goal is to reduce waste, increase the process and methods of production, and create a just distribution of goods. This goal serves the common interests of employers, employees, and society.

This theory was relevant to the study topic since it informed management style variable. Scientific management theory is important because its approach to management is found in almost every industrial business operation including the family owned businesses across the world. Its influence is also felt in general business practices such planning, process design, quality control, cost accounting, and ergonomics. Your knowledge of the theory will give you a better understanding of industrial management. You'll also understand how a manager can use quantitative analysis, an examination of numbers and other measurable data, in management to improve the efficiency and effectiveness of business operations.
2.1.3 Social-Cultural Approach Theory of Entrepreneurship

This theory tries to explain the social conditions from which entrepreneurs emerge and the social factors that influence their decisions. The entrepreneur cannot ignore community and other social actors who are involved in or impact on his/her entrepreneurial effort. In this sense, studies of entrepreneurial activity must recognize the importance of human volition. Human inferences are shaped by culture (Spear, 2006). the underlying contextual beliefs and value systems on which actions are based. Especially in developing countries, many people find their primary sources of the meaning of life in socio-cultural values, beliefs and mysteries (Nanayakara, 2009). Therefore, research into entrepreneurial behavior in developing countries should consider cultural issues and identify the social processes. The usefulness and endurance of a theory is determined by the way the theory is generated. Established social theories, including Weber's theory of bureaucracy and the Marxist theory of power which were inductively developed from social research, suggest that it is not possible to completely separate those theories from the society. This theory was relevant to the study topic since it informed entrepreneurial culture. Potential entrepreneurs need models and what can be accomplished. They require support from others; emotional, financial and physical support.

2.1.4 Rogers diffusion of innovation Theory

A conceptual framework for analyzing adoption of technology patterns is provided by Everett Rogers'(1995) theory of the diffusion of innovations, which defines diffusion as "the process by which an innovation is communicated through certain channels over time among the members of a social system". The four main elements are the innovation, communication channels, time, and the social system. (Rogers, 1995) defines an innovation as an idea, practice or object that is perceived as new by the individual and diffusion as the process by which an innovation makes its way through a social system. For our purposes, the innovation is instructional technology for teaching and learning, and diffusion is the extent to which all higher Education institution has adopted this innovation. Because individuals in a social system do not adopt an innovation at the same time, innovativeness is the degree to which an individual is relatively earlier in adopting new ideas than other members of a system. According to Rogers’ theory of the diffusion of innovations, the factors that influence innovation adoption include;
Relative Advantage: Rogers (2003) defined relative advantage as “the degree to which an innovation is perceived as being better than the idea it supersedes” The cost and social status motivation aspects of innovations are elements of relative advantage. To increase the rate of adopting innovations and to make relative advantage more effective, direct or indirect financial payment incentives may be used to support the individuals of a social system in adopting an innovation. Incentives are part of support and motivation factors.

Compatibility: In some diffusion research, relative advantage and compatibility were viewed as similar, although they are conceptually different. Rogers (2003) stated that “compatibility is the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters” A lack of compatibility in IT with individual needs may negatively affect the individual’s IT use (McKenzie, 2001).

Complexity: Rogers (2003) defined complexity as “the degree to which an innovation is perceived as relatively difficult to understand and use” As Rogers stated, opposite to the other attributes, complexity is negatively correlated with the rate of adoption. Thus, excessive complexity of an innovation is an important obstacle in its adoption.

Observability: The last characteristic of innovations is observability. Rogers (2003) defined observability as “the degree to which the results of an innovation are visible to others. Role modeling (or peer observation) is the key motivational factor in the adoption and diffusion of technology. Similar to relative advantage and compatibility, observability also is positively correlated with the rate of adoption of an innovation.

Therefore Rodgers theory of the diffusion of innovations was deemed relevant since it informed the technology adoption variable. Family may need to adopt new technologies for proper operation of the Matatu business.

2.2 Empirical Literature Review

2.2.1 Management style and performance of family owned Matatu business

Ligthelm Veysel Süleyman and Oğuzhan (2002) observed that the deficiencies in the internal environment are the major cause of failures in small and medium enterprises and they revolve around among others management skills. This problem comes from some specific management issues such as lack of business management training and skills, inability to act as an entrepreneur
and limited family business culture. They finally point out that management behavior and actions that are lacking; inability to set strategic goals, plan forward, reluctance to seek advice, lack of management commitment and unwillingness to adapt change. Ligthelm Veysel Süleyman and Öğuzhan (2002) states that financial management is a crucial field within the environment of the small and medium enterprises thus present numerous potential obstacles. Management competence is often determined by the availability of management and financial information.

Mochache (2005) observed the importance of training and how it enhances growth and competitiveness of the SME’s. Training empowers owners and employers to make better decisions and provide better quality goods and services. He further noted that the training duration is influenced by the competency required for the particular trade. Managerial skills are important in making decisions which are non-routine and strategic in nature.

According to Mfinanga (2008), managerial skills are important in running any business. In recent years, organizations have been buffeted by massive need for reaching social, technological and economic changes. This puts a lot of pressure on business from all sectors. Managerial skills assist managers to solve issues that are directly relevant to the current, fast shifting business environment (Martin and Staines, 2008). Managing today requires the full breadth of management skills and capabilities. In the tradition of world of work, management was to control and limit people, enforce rules and regulations, seek stability and efficiency, design top-down hierarchy and achieve bottom line results. To spur innovation and achieve high performance, managers need different skills to engage workers hearts and minds as well as take advantage of their physical labor. According to Kamuhanda and Schmidt (2009), purchasing a Matatu and recovering initial costs is a concern for owners. This can be initially difficult but general expectation is that a sizeable profit can be realized in a relatively short period of time. The owners must consider the basic cost of operations, including expenditures. Expenditures such as fuel, salaries and insurance are the most expensive costs for owners. For them to ensure that costs are recovered, owners set a target for daily profits, and this encourages Matatus to overcrowd.

Ardichvili Cardozo & Ray, (2003) points out that the identification of business problems and development of the appropriate training programs to address these problems which will assist in...
equipping small and medium enterprise owners with the necessary managerial skills to survive in today’s competitive world.

**2.2.2 Entrepreneurial culture and performance of family owned Matatu business**

Zainol & Ayadurai (2011) tried to examine entrepreneurial orientation (EO) in Malay family firms by taking personality traits as the antecedent. This construct was used to explain the influence of entrepreneurial orientation (EO) and its consequence towards firm performance. The impact of personality traits towards firm performance observed in Malay family firms was quite unique. In Malay firms, the relationship between personalities traits with firm performance was not mediates by entrepreneurial orientation (EO). However, the construct is significant as predictor towards firm performance. Their studies provided the empirical test in understanding indigenous entrepreneurship in Malay family firms in Malaysia towards developing a more holistic entrepreneurship theory. However the authors only concentrated on Personality traits and forgot to include other indicators of entrepreneurial performance.

Fauzul, Takenouchi and Yukiko (2010). in their study were of the view that entrepreneurship has played an important role in economic growth, innovation, competitiveness and in poverty alleviation. Their study was focused on investigating the degree of Entrepreneurial Orientation of twenty five manufacturing Small and Medium scale Enterprises (SMEs) in Hambantota District, Sri Lanka (HDSL) and the effects of entrepreneurial orientation dimensions including proactiveness, innovativeness, and risk taking to business performance. Interviews were used as the main instrument for data collection. Qualitative and quantitative techniques were applied for data analysis. Findings showed that proactiveness, innovativeness, risk taking and overall entrepreneurial orientation were significantly correlated with market share growth. Results further indicated there were positive correlations among proactiveness and entrepreneurial orientation with business performance. However the authors only dealt with the issues of proactiveness, innovativeness, and risk taking to business performance and ignored the other indicators of business performance.

Gompers, Anna Josh and David (2008) did a research on performance persistence in entrepreneurship. Their findings reveled that entrepreneurs with a track record of performance are much more likely to succeed than first-time entrepreneurs and those who have previously failed. In particular, they exhibit persistence in selecting the right industry and time to start new
ventures. The research further revealed that entrepreneurs with demonstrated market timing skill are more likely to outperform industry peers in their subsequent ventures. However, the authors only dealt with the issue of persistence in business ignoring the other indicators of performance thus presenting a conceptual gap.

Veysel Süleyman and Oğuzhan (2002) in their study concluded that entrepreneurship was accepted as a driving force behind the economic and social development of countries. They categorized determinants on entrepreneurial performance of the countries into general country infrastructure and entrepreneurship infrastructure. The aim of their study was to examine and determine the effects of some selected socio-economic, politic, financial, and administrative factors on the entrepreneurship performance of countries. According to their findings, there were positive relations between entrepreneurship performance of national economies and independent variables (ease of doing business in an economy, availability of venture capital for business development, the impact of values of the society on competitiveness, availability of legislations for easily creation of firms, bureaucracy hindering business activity, and availability of financial access skills). Nonetheless, no significant relationship between entrepreneurship performance of national economies and risk of political instability of 58 countries was found. The authors did a great work in unveiling some of the determinants of entrepreneurial Performance but did not tackle determinant of business performance in less developed economies like Kenya.

2.2.3 Financial access and performance of family owned Matatu business

Blasco, & Teruel, (2009) conducted a study on Small firms, growth and financial constraints. Using panel data from Spanish manufacturing firms for the period 2000-2006, the study investigates the effects of internal and external financial access on firm growth. In particular, it examines three dimensions of these financial sources: a) the performance of the firms’ capital structure in accordance with firm size; b) the effects of internal and external financial sources on growth performance; c) the combined effect of equity, external debt and cash flow on firm growth. The study finds that low-growth firms are sensitive to cash flow and short-term bank debt, while high-growth firms are more sensitive to long-term debt. Furthermore, equity capital seems to reduce barriers to external financial access. The main conclusion is that during the start-up phase, firms are unable to increase their financial leverage and so their capital structure fails
to promote correct investment strategies. However, as their equity capital increases, alternative financial mechanisms, in particular long-term debt, become available, which have a positive impact on firm growth.

Njehia & Mwirigi (2010) conducted a study on the Effects of Enterprise Resource Planning Systems on Firm’s Performance: A Survey of Commercial Banks in Kenya. The study had five objectives of finding out how the financial resource availability, organizational complexities, employees’ perception, regulatory requirements, and having a top management support affects the effective implementation of an ERP system which in turn will affect the firm’s performance. The research adopted a descriptive design employing the use of mainly questionnaires as the primary data collection tool. Data was collected using questionnaires and analyzed by finding out the mean, maximum, minimum, standard deviation and the correlation between the variables in the findings. The presentation of data was done by use of tables while hypothesis test was done by chi-square test of independence. All this was achieved by the use of Statistical Package for Social Science (SPSS V 20). This study found that financial resource availability, organizational complexities, employee’s perceptions, regulatory requirements; and having a top management support all affects the effective implementation of an ERP system which in turn will affect the firm’s performance.

Musso & Schiavo (2008) conducted a study on the impact of financial constraints on firm survival and growth. The study proposed a new approach for identifying and measuring the degree of financial constraint faced by firms and use it to investigate the effect of financial constraints on firm survival and development. Using panel data on French manufacturing firms over the 1996 - 2004 period, we find that (i) financial constraints significantly increase the probability of exiting the market, (ii) access to external financial resources has a positive effect on the growth of firms in terms of sales, capital stock and employment, (iii) financial constraints are positively related with productivity growth in the short run. The study interpret this last result as the sign that constrained firms need to cut costs in order to generate the resources they cannot raise on financial markets.

2.2.4 Technology adoption and performance of family owned Matatu business

The International Centre for Economic Growth (2001) states that most entrepreneurs start a business because of reasons such as the availability of funds and opportunities then embark to
learn about it while operating it. This results in a steep learning curve and higher chances of failure. Skills upgrading enable the informal sector to adopt new technology which results to higher productivity.

Palacios, Juste, Redondo, & Grünhagen (2014) conducted a study on technological opportunism effects on IT adoption, intra-firm diffusion and performance: Evidence from the US and Spain. The paper pursues a joint analysis of the direct influence of the level of a firm's technology opportunism capability on performance and on the adoption and intra-firm diffusion of Internet-based technologies. The study here examines the mediating effect that intra-firm diffusion exerts on the relationship between capabilities and performance. This study uses the results from a survey of 100 Spanish and 109 American franchise firms. Results indicate that the firm's level technological opportunism influences the adoption and intra-firm diffusion of technology and also has a positive impact on performance. While intra-firm diffusion is a driver of performance, adoption has no influence. Finally the indirect impact of technological opportunism on performance differs across countries. While for American firms, the integration of technologies into activities that related to communication with partners has a positive impact on performance; Spanish managers should focus on the integration of these technologies into back-end functionalities.

Barney (2004), points out that technology adoption cultivates organizational capabilities that enable the firm to outperform their competitors. However, adoption of information technology alone may not be a source of competitive advantage because of their wide availability in the market, only when the information technology is embedded into organizational processes (e.g. strategy making), it is expected to offer sustainable benefits. The increasing role of supply chain technology has contributed to the evolution of the competitive supply chain management. According to Regan and Song (2001), the following trends are evident as a consequence of the impact of technology adoption in supply chain management, development of new services, new functions, formation of new alliances etc.

2.3 Conceptual Framework

A conceptual framework is a conceptualization of the relationship and interactions among the variables informing the study in order to achieve the research objectives. Kothari (2004) defines an independent variable also known as the explanatory variable as the presumed cause of the
changes of the dependent variable, while a dependent variable refers to the variable which the researcher wishes to explain. The goal of a conceptual framework is to categorize and describe concepts relevant to the study and map relationships among them. Such a framework would help researchers define the concept, map the research terrain or conceptual scope, systematize relations among concepts, and identify gaps in literature. This was graphically represented in figure.
Figure 2.1: Diagram showing relationship Conceptual framework

Independent Variables

- Management Style
- Entrepreneurial culture
- Financial Access
- Technology Adoption

Dependent Variable

Performance of Family owned Matatu business

Source: Author (2015)
2.4 Operationalization of Variables

Autocratic

Democratic

Affiliative

Risk taking

Tolerance

Creativity

Investment Finance

Loan term finance

Asset Finance

Smart card technology

Wifi

Fleet management

Management Styles

Entrepreneurial Culture

Financial access

Technology Adoption

Success of family owned Matatu business
- Profitability
- Revenue growth
- Number of vehicles owned
- Financial statement

Source- Author (2015)
Figure 2.2: Operationalization.

Each independent variable was discussed below,

According to Ligthelm Veysel Süleyman and Oğuzhan (2002)) a management style is an overall method of leadership used by a manager. Management style is explained by the management/leadership styles and this includes autocratic, democratic and affiliative styles. In autocratic leadership, Leader makes all decisions unilaterally. The democratic leadership style is a very open and collegial style of running a team (Mochache, 2005) Ideas move freely amongst the group and is discussed openly. While in affiliate leader, leader promotes harmony among his or her followers and helps to solve any conflict. This type of leader will also build teams that make sure that their followers feel connected to each other.

Entrepreneurial culture is explained by risk taking, tolerance and creativity. Risk taking is one of the characteristics of an entrepreneur (Fauzul, Takenouchi and Yukiko, 2010). An entrepreneur should be willing to take risks. In addition he/she should possess tolerance since business is all about patience. Creativity refers to the innovativeness of an entrepreneur Gompers, Anna, Josh and David, 2008). Therefore the Matatu owners need to have an entrepreneurial mind so as to succeed in the Matatu business.

According to (Blasco, & Teruel, 2009) financial access is explained by investment financial access, loan term financial access and asset financial access. A financial investment is an asset that you put money into with the hope that it will grow or appreciate into a larger sum of money. Term loan are the standard commercial loan, often used to pay for a major investment in the business or an acquisition. The loans often have fixed interest rates, with monthly or quarterly repayment schedules and a set maturity date. Asset financial access financing is typically used for short-term borrowing or working capital (Musso& Schiavo, 2008). Companies using asset financing commonly pledge their accounts receivable, but the use of inventory assets is becoming more frequent. Therefore the financing option boosts/determines the performance of the Matatu owners.

Technology adoption is explained by the current technologies which have been adopted in the Matatu industry (Palacios, Juste, Redondo, & Grünhagen, 2014). Some of these technologies include smart card technology, W.i.f.i and fleet management. Smart card is cashless chip which is used to pay Matatu fare. The chip or card is traceable. W.i.f.i refers to the software within the
Matatu which enables the passengers to access internet services while fleet management addresses the management problems encountered in the transport industry. Performance of family owned Matatu business can be measured by profitability, revenue growth, number of vehicles owned and financial statement reporting (Barney, 2004).

2.5 Research Gaps

Nyasetia, (2013) conducted a study on the influence of entrepreneurial personality, human capital and entry barriers on performance of entrepreneurs in the informal transport business in Nairobi, Kenya. The study presents a conceptual gap since it focused on influence of entrepreneurial personality, human capital and entry barriers on performance of entrepreneurs while the current study will be factors influencing family owned Matatu business. Wairimu, (2014) conducted a study on the effect of corporate governance on financial performance of registered transport savings and credit cooperatives in Nairobi county. The study focused on only one construct that is corporate governance thus presenting a conceptual gap. The current study will focus on the four constructs that is management style, entrepreneurial culture, financial access and technology adoption. McCormick, Mitullah, Chitere, Orero, & Ommeh, (2011) conducted a study on institutions and business strategies of Matatu operators in Nairobi: A scoping study. The study focused on business strategies thus presenting a conceptual gap. The current study will focus on the factors affecting the family owned Matatu business. Mwaura, (2014) conducted a study on determinants of financial performance of public transport businesses in Kenya: case of Kiambu County. The study presents a geographical gap since it concentrated on Kiambu as a case study while the current study will concentrate on Nairobi County

Zainol & Ayadurai (2011) tried to examine entrepreneurial orientation (EO) in Malay family firms by taking personality traits as the antecedent. However the authors only concentrated on Personality traits and forgot to include other indicators of performance of family owned businesses. Fauzul, Takenouchi.and Yukiko (2010) in their study was of the view that entrepreneurship has played an important role in economic growth, innovation, competitiveness and in poverty alleviation. However the authors only dealt with the issues of proactiveness, innovativeness, and risk taking to business performance and ignored the other indicators of business performance. Gompers, Anna, Josh and David, (2008) did a research on performance
persistence in entrepreneurship. However the Authors only dealt with the issue of persistence in business ignoring the other indicators of performance thus presenting a conceptual gap. Veysel Süleyman and Oğuzhan (2008) in their study concluded that entrepreneurship was accepted as a driving force behind the economic and social development of countries. The authors did a great work in unveiling some of the determinants of entrepreneurial Performance but did not tackle determinant of business performance in less developed economies like Kenya thus presenting a geographical/contextual gap. Therefore it is for this research gap that this study is conducted to determine the factors affecting the performance of family owned Matatu business in Nairobi, Kenya.

2.6 Chapter Summary

The above chapter reviewed the various theories that explained the independent and dependent variables. The reviewed theories were then critiqued for relevance to specific variables. The chapter also explored the conceptualization of the independent and the dependent variables by analyzing the relationships between the two set of variables. In addition, an empirical review was conducted where past studies both global and Local is reviewed in line with the following criteria, title, scope, methodology resulting into a critique. It is from these critiques that the research gap was identified.
CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This section provided information on the techniques and methods to be used to obtain the required data for the study. It presented the research design, Area of study, Target population, Sampling techniques and sample size, data collection techniques and instruments, data collection procedure, data analysis and ethical issues.

3.1 Research design

This refers to the strategy that is employed to generate the required answers to the problems under investigation. Descriptive research design was employed. This is because the intention was to cover the whole of Nairobi region by collecting data across the existing Matatu routes and thereafter test the causal relationships between variables. Descriptive research design enhanced clear examination of the research topic and also facilitates data collection process by answering questions concerning the study as per the current status (Mugenda, & Mugenda, 2003).

3.2 Target population

The population of interest in this study comprised of the Matatu entrepreneurs operating in Nairobi in all the routes. The reason why Nairobi was picked was because it is the capital city of Kenya and hence had the highest concentration of Matatus. According to the Matatus’ Owners Association (MOA), there were 71 routes in Nairobi and its environs. These were grouped together into four major regions so as to cover the entire city. Information obtained from both the Transport Licensing Board (TLB) and the MOA revealed that there were 45,000 Matatus in the country of which 10,000 were operating in Nairobi. According to the Matatu Welfare Association (MWA) and MOA, the Matatus operating in Nairobi were owned by 7,000 registered entrepreneurs (family owners) and the lists of these owners were available in the offices of the above two associations. For purposes of reliability, the researcher focused on the same listing in obtaining information required for the research study.

Table 3.1 shows the target population from the four routes.
Table 3.1: Population of the study

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>Family owners</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>1300</td>
</tr>
<tr>
<td>South</td>
<td>700</td>
</tr>
<tr>
<td>East</td>
<td>3500</td>
</tr>
<tr>
<td>West</td>
<td>1500</td>
</tr>
<tr>
<td>Total</td>
<td>7,000</td>
</tr>
</tbody>
</table>

3.3 Sample Size

The sample required out of a population of 7,000, was obtained from Equation 1

\[ n = \frac{Z^2 \cdot p \cdot (1-p)}{d^2} \]  

Where:

- \( n \) = Sample size for large population
- \( Z \) = Normal distribution Z value score, (1.96)
- \( p \) = Proportion of units in the sample size possessing the variables under study, where for this study it is set at 50\% (0.5)
- \( d \) = Precision level desired or the significance level which is 0.05 for the study

The substituted values in determining the sample size for a large population are as follows.

\[ n = \frac{(1.96)^2 \cdot (0.5) \cdot (0.5)}{(0.05)^2} = 384 \]  

Equation 1 provides for population greater than 10,000. In this study, however, the target population was less than 10,000 (i.e. 7,000). Therefore, to calculate the final

\[ n \rightarrow \frac{n}{1+n} \cdot \frac{N}{N} \]
n = The desired sample size (when the population is less than 10,000).
n= the desired sample size (when the population is more than 10,000).
N= The estimate of the population size (7,000).

\[
\frac{n=384}{1+384} = \frac{364}{7000}
\]

Therefore by the formula, the sample size of the Matatu owners within Nairobi was 364 and was obtained using stratified random sampling. Table 3.2 shows the sample size.

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>Family owners</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>70</td>
</tr>
<tr>
<td>South</td>
<td>30</td>
</tr>
<tr>
<td>East</td>
<td>200</td>
</tr>
<tr>
<td>West</td>
<td>64</td>
</tr>
<tr>
<td>Total</td>
<td>364</td>
</tr>
</tbody>
</table>

3.4 Data collection techniques and instruments

Primary data was utilized in this study to enhance originality of the study. Primary data is of essence in this study as it allowed the researcher to address issues that are specific to their study. Mugenda and Mugenda (2003) asserts that primary data enables the researcher to have control on how information will be collected and give him freedom to decide on the sample size, location of the research and time.

Primary data was collected from respondents via questionnaires. The questionnaires were administered to the Matatu owners. The questionnaire comprised of the questions intended to answer the questions formulated with reference to the objectives of the study and the research questions. A questionnaire technique enabled the researcher find out what the respondents do, think and feel about the factors affecting the performance of the Matatu business. The questionnaire included closed questions only to enhance uniformity.
3.5 Data collection procedure

Data collection was carried out by use of questionnaires. The researcher furnished the respondents with an introductory letter issued by the university to instill confidence into the respondents. The respondents were not required to give their personal details such as names to ensure that they give detailed, reliable and accurate information without prejudice. The questionnaires were not interpreted due to the assumption that the target population is literate. The researcher issued the questionnaire to the respondents on one on one interaction and gave guidance where it was need.

3.6 Pilot testing

3.6.1 Validity Test

According to Mugenda and Mugenda (2003), validity is the accuracy and meaningfulness of inferences, which are based on the research results. Validity exists if the data measure what they are supposed to measure. In order to test and enhance the validity of the questionnaire, five questionnaires’ were pilot tested and reviewed with a view to improving validity of the data that were collected (Kothari, 2004). Industry experts and the research supervisor went through the questionnaire to enhance validity.

3.6.2 Reliability Test

Reliability is the consistency of a set of measurement items (Cronbach, 1951). Reliability is the consistency of measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. In short, it is the repeatability of measurement. A measure is considered reliable if a person's score on the same test given twice is similar. Five questionnaires were piloted by issuing them to respondents who were not included in the final study sample. The five questionnaires were then coded and responses input into SPSS which was used to generate the reliability coefficient. The researcher used the most common internal consistency measure known as Cronbach’s Alpha (α) which was generated by SPSS. It indicates the extent to which a set of test items can be treated as measuring a single latent variable (Cronbach, 1951). The recommended value of 0.7 was used as a cut–off of reliability for this study. All the statements in the questionnaire had a value above 0.7 thus were reliable.
3.7 Data Analysis

Data analysis involved the reduction of accumulated data to a controllable size, developing summaries, looking for patterns, and applying statistical techniques (Cooper and Schindler, 2000). The study used the quantitative method of data analysis. Data analysis played an important role in conversion of raw data into a form that can be subjected to statistical interpretation and presentation. The collected data were edited, coded, keyed in and analyzed using Statistical Package for Social Sciences (SPSS).

The research yield quantitative and qualitative data. The quantitative data were analyzed using both descriptive statistics and correlations. Descriptive statistics helped to get the measures of central tendency and measures of dispersion which include the mean and standard deviation. The Pearson product movement correlation coefficient (r) was used to determine the strength of the relationship between different variables by use of the correlation coefficient, r, with a confidence interval of 95%. This helped in showing the strength of the relationship whereby an r value of ±0.1 - ±0.29 shows a weak relationship, an r value of ±0.3 - ±0.59 shows a moderate relationship whereas an r value of ±0.6 - ±1 shows a strong relationship.

A multivariate regression model was used to link the independent variables to the dependent variable as follows;

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu \]

Where;

\( Y \) = Performance of family owned Matatu business

\( X_1 \) = Management Style

\( X_2 \) = Entrepreneurial culture

\( X_3 \) = Financial access

\( X_4 \) = Technology adoption

\( \mu \) = Error term
In the model, $\beta_0$ = the constant term while the coefficient $\beta_i$ = 1…4 will be used to measure the sensitivity of the dependent variable (Y) to unit change in the predictor variables $X_1$, $X_2$, $X_3$ and $X_4$. $\mu$ is the error term which captures the unexplained variations in the model.

3.8 Ethical Considerations

Ethical considerations relate to the moral standards that the researcher should consider in all research methods in all stages of the research design. After approval from the University was obtained to conduct the study, permission were obtained from the Matatu owners. In this research three principles of ethics were used namely beneficence, respect for human dignity as well as justice (Polit, & Beck, 2003).

3.8.1 Voluntary Participation

Following the three principles, sensitivity to the participants’ emotions were observed when the researcher was probing questions that could psychologically harm the participants as well as protect the participants from adverse situations.

3.8.1 Informed Consent, confidentiality and Privacy

The participants were also informed that the information they provided will not be used in any way to harm the participants or exploited for commercial and selfish personal gain, but only for academic purposes. Full disclosure, fair treatment and privacy were also practiced.

3.9 Chapter Summary

The chapter discussed the steps that were taken during data collection. It specifically described the research design and indicated why that specific design was preferred. In addition, it identified the population, and the actual sample size. The preferred data collection instrument was the questionnaire and it was used to collect primary data. SPSS v 20.0 was the tool through which data was converted into percentages and correlation analysis executed. The next chapter (Chapter 4) dealt with the analysis and presentation of the results.
CHAPTER FOUR
ANALYSIS, RESULTS AND DISCUSSIONS

4.0 Introduction

This chapter comprised of data analysis, findings and interpretation. Results were presented in tables and diagrams. The analyzed data was arranged under themes that reflected the research objectives.

4.1 Response Rate

The number of questionnaires that were administered to Matatu business was 364. A total of 312 questionnaires were properly filled and returned. This represented an overall performanceful response rate of 85.71% as shown on Table 4.1. According to Mugenda and Mugenda (2003) and also Kothari (2004) a response rate of above 50% is adequate for a descriptive study. Babbie (2004) also asserted that return rates of above 50% are acceptable to analyze and publish, 60% is good and 70% is very good and above 80% is excellent.

Based on these assertions from renowned scholars, 85.71% response rate is excellent for the study.

Table 4.1: Response Rate

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returned</td>
<td>312</td>
<td>85.71%</td>
</tr>
<tr>
<td>Unreturned</td>
<td>52</td>
<td>14.29%</td>
</tr>
<tr>
<td>Total</td>
<td>364</td>
<td>100%</td>
</tr>
</tbody>
</table>

4.2 Demographic Characteristics

This section consists of information that describes basic characteristics such as gender of the respondent, age of the respondent, level of education and years worked in the family owned Matatu business.

4.2.1 Gender of the respondents

The respondents were asked to indicate their gender. Majority of the respondents were male who represented 62% of the sample while 38% were female. Nairobi County is male dominated.
Figure 4.1: Gender of Respondents

4.2.2 Age of the respondents

Respondents were requested to indicate their age brackets. Majority of the respondents who was 35% were on age bracket of 31-40 years. 31% were on age bracket of 41-50 years, 20% were above 50 years while 14% who were the least were less than 30 years old. This implies that majority of the family owned Matatu businesspersons are middle aged energetic people.

Figure 4.2: Age of Respondents
4.2.3 Highest Level of Education

The respondents were asked to indicate their highest level of education. Results in figure 4.3 show that 51% of the respondents had their highest level of education being college level, 39% had university qualification while 10% had secondary qualification. In as far as the title of study is concerned, the results imply that, the respondents were expected to understand the questionnaire and give valid response since they had better understanding as guided by the their level of education which in this case majority having college as the highest level of education.

Figure 4.3: Highest level of Education

4.2.4 Duration of being a Matatu operator

On the question of the duration being a Matatu operator, majority of the respondents, 52%, have been in the operation for 6-10 years, 24% have been in the operation for over 10 years, 15% have been in the operation for 2-5 years while 9% have been in the business for a period less than 1 year. This implies that majority of the respondents have been in the operation for a good period of time thus they understood better the Matatu business operation.
4.3 Descriptive Statistics

This section presents the descriptive results on management style, entrepreneurial culture, financial access and technology adoption.

4.3.1 Management style

The first objective of the study was to establish the effect of management style on the performance of family owned Matatu Business in Nairobi. The responses were rated on a five likert scale as presented in Table 4.2. Majority of 78.8% (50% + 28.8%) of the respondents agreed with the statement that managerial experience contributes greatly towards the performance of the Matatu business, 70.2% agreed with the statement that democratic management style contributes greatly to the performance of family owned Matatu business, 65.7% of the respondents agreed that the affiliative management style contributes greatly to the performance of family owned Matatu business, while 76.6% of the respondents agreed that autocratic management style contributes greatly to the performance of family owned Matatu business.

On a five point scale, the average mean of the responses was 3.79 which mean that majority of the respondents were agreeing with most of the statements; however the answers were varied as shown by a standard deviation of 1.15.
Table 4.2: Management Style

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managerial Experience contributes greatly towards the performance of the Matatu business.</td>
<td>4.80%</td>
<td>7.70%</td>
<td>8.70%</td>
<td>50.00%</td>
<td>28.80%</td>
<td>3.9</td>
<td>1.053</td>
</tr>
<tr>
<td>Democratic management style contributes greatly to the performance of family owned Matatu business</td>
<td>5.10%</td>
<td>11.90%</td>
<td>12.80%</td>
<td>34.60%</td>
<td>35.60%</td>
<td>3.84</td>
<td>1.182</td>
</tr>
<tr>
<td>Affiliative management style contributes greatly to the performance of family owned Matatu business</td>
<td>11.20%</td>
<td>4.80%</td>
<td>18.30%</td>
<td>37.20%</td>
<td>28.50%</td>
<td>3.67</td>
<td>1.251</td>
</tr>
<tr>
<td>Autocratic management style contributes greatly to the performance of family owned Matatu business</td>
<td>7.10%</td>
<td>9.60%</td>
<td>6.70%</td>
<td>54.20%</td>
<td>22.40%</td>
<td>3.75</td>
<td>1.12</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>3.79</strong></td>
<td><strong>1.15</strong></td>
</tr>
</tbody>
</table>

4.3.2 Entrepreneurial Culture

The second objective of the study was to determine how entrepreneurial culture influence the performance of family owned Matatu Business in Nairobi. The responses were rated on a five likert scale and the results presented in Table 4.3. Sixty eight point three percent(12.50%+55.8%) of the respondents agreed with the statement that risk taking is one of the requirements if one wants to succeed in business, 70.8% agreed that to succeed in business, one has to seriously exercise the art of tolerance, 79.2% of the respondents indicated that creativity in Matatu business is a major factor to be considered if one wants to succeed, while 81.8% agreed with the statement that for someone to have an impact and therefore he/she make some business performances, you must be self confident. The results imply that entrepreneurial culture influence performance of family owned Matatu business since majority of the respondents agreed with most of the statements.
On a five point scale, the average mean of the responses was 3.94 which mean that majority of the respondents agreed with the statements; however the answers were varied as shown by a standard deviation of 1.20.

**Table 4.3: Entrepreneurial Culture**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk taking is one of the requirements if one wants to succeed in business.</td>
<td>16.00%</td>
<td>6.40%</td>
<td>9.30%</td>
<td>12.50%</td>
<td>55.80%</td>
<td>3.86</td>
<td>1.528</td>
</tr>
<tr>
<td>To succeed in business, one has to seriously exercise the art of tolerance.</td>
<td>4.50%</td>
<td>15.40%</td>
<td>9.30%</td>
<td>39.40%</td>
<td>31.40%</td>
<td>3.78</td>
<td>1.176</td>
</tr>
<tr>
<td>Creativity in Matatu business is a major factor to be considered if one wants to succeed.</td>
<td>4.50%</td>
<td>4.80%</td>
<td>11.50%</td>
<td>40.40%</td>
<td>38.80%</td>
<td>4.04</td>
<td>1.049</td>
</tr>
<tr>
<td>For you to have an impact and therefore make some business performances, you must be self confident.</td>
<td>4.80%</td>
<td>4.50%</td>
<td>9.00%</td>
<td>41.70%</td>
<td>40.10%</td>
<td>4.08</td>
<td>1.049</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>3.94</strong></td>
<td><strong>1.20</strong></td>
</tr>
</tbody>
</table>

**4.3.3 Financial access**

The third objective of the study was to assess the effects of financial access on the performance of family owned Matatu Business in Nairobi. The responses were rated on a five likert scale and the results presented in Table 4.4. 71.50% (31.40%+40.10 %) of the respondents agreed with the statement that performance in Matatu business depends on the investment financial access of the owner of business, 69.6% of the respondents agreed that performance in Matatu business depends on the total assets(asset financial access) of the owner of business, 73.4% of the respondents indicated that Performance in Matatu business depends on the availability of long term financing, while 67% of the respondents indicated that Matatu business can sometimes be financed using borrowings from friends or relatives. The results imply that financial access influence the performance of family owned Matatu Business since majority of the respondents agreed with most of the statements.
On a five point scale, the average mean of the responses was 3.86 which mean that majority of the respondents agreed with the statements; however the answers were varied as shown by a standard deviation of 1.27.

**Table 4.4: Financial access**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance in Matatu business depends on the investment financial access of the owner of business</td>
<td>6.40%</td>
<td>17.60%</td>
<td>4.50%</td>
<td>31.40%</td>
<td>40.10%</td>
<td>3.81</td>
<td>1.30</td>
</tr>
<tr>
<td>Performance in Matatu business depends on the total assets(asset financial access) of the owner of business</td>
<td>10.90%</td>
<td>11.20%</td>
<td>8.30%</td>
<td>23.40%</td>
<td>46.20%</td>
<td>3.83</td>
<td>1.39</td>
</tr>
<tr>
<td>Performance in Matatu business depends on the availability of long term financing.</td>
<td>6.70%</td>
<td>4.80%</td>
<td>15.10%</td>
<td>35.60%</td>
<td>37.80%</td>
<td>3.93</td>
<td>1.15</td>
</tr>
<tr>
<td>Matatu business can sometimes be financed using borrowings from friends or relatives</td>
<td>6.10%</td>
<td>9.90%</td>
<td>17.00%</td>
<td>25.00%</td>
<td>42.00%</td>
<td>3.87</td>
<td>1.23</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>6.10%</strong></td>
<td><strong>9.90%</strong></td>
<td><strong>17.00%</strong></td>
<td><strong>25.00%</strong></td>
<td><strong>42.00%</strong></td>
<td><strong>3.86</strong></td>
<td><strong>1.27</strong></td>
</tr>
</tbody>
</table>

**4.3.4 Technology adoption**

The forth objective of the study was to determine the effects of technology adoption on the performance of family owned Matatu business in Nairobi. The responses were rated on a five likert scale and the results presented in Table 4.5. 54.8% (23.0%+31.8%) of the respondents indicated that adoption of fleet management system technology contributes greatly to the performance of family owned Matatu business, 51.9% respondent that the use of W.i.f.i technology contributes greatly to the performance of family owned Matatu business, 53.6% of the respondents agreed with the statement that the use of smart Matatu technology contributes greatly to the performance of family owned Matatu business while 50.6 % of the respondents agreed that blow test technology that could check drivers for sobriety contributes greatly to the performance of family owned Matatu business. The results imply that technology adoption
influence the performance of family owned Matatu business as shown by majority of the respondents who agreed with most of the statements.

On a five point scale, the average mean of the responses was 3.79 which mean that majority of the respondents agreed with the statements; however the answers were varied as shown by a standard deviation of 1.16.

**Table 4.5: Technology adoption**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoption of fleet management system technology contributes greatly to the performance of family owned Matatu business</td>
<td>4.50%</td>
<td>15.40%</td>
<td>25.30%</td>
<td>23.00%</td>
<td>31.80%</td>
<td>3.12</td>
<td>1.087</td>
</tr>
<tr>
<td>The use of W.i.f.i technology contributes greatly to the performance of family owned Matatu business</td>
<td>4.50%</td>
<td>18.70%</td>
<td>25.00%</td>
<td>32.00%</td>
<td>19.90%</td>
<td>3.8</td>
<td>1.078</td>
</tr>
<tr>
<td>The use of smart Matatu technology contributes greatly to the performance of family owned Matatu business.</td>
<td>4.50%</td>
<td>14.90%</td>
<td>27.00%</td>
<td>23.20%</td>
<td>30.40%</td>
<td>3.88</td>
<td>1.185</td>
</tr>
<tr>
<td>Blow test technology that could check drivers for sobriety contributes greatly to the performance of family owned Matatu business.</td>
<td>9.00%</td>
<td>17.30%</td>
<td>23.10%</td>
<td>24.40%</td>
<td>26.20%</td>
<td>3.76</td>
<td>1.287</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>3.79</strong></td>
<td><strong>1.16</strong></td>
</tr>
</tbody>
</table>

**4.4 Inferential Statistics**

Inferential analysis was conducted to generate correlation results, model of fitness, and analysis of the variance and regression coefficients.

**4.4.1 Correlation Analysis**

Table 4.6 below presents the results of the correlation analysis. The results revealed that management style and performance of Matatu business are positively and significant related ($r=0.0440$, $p=0.044$). The table further indicated that entrepreneurial culture and performance of
Matatu business are positively and significantly related ($r=0.266$, $p=0.000$). It was further established that financial access and performance of Matatu business were positively and significantly related ($r=0.246$, $p=0.000$). Lastly, the results showed that technology adoption and performance of Matatu business were positively and significantly related ($r=0.169$, $p=0.003$). This implies that there is a direct association between the four independent variables and the performance of the Matatu business.

**Table 4.6: Correlation Matrix**

<table>
<thead>
<tr>
<th></th>
<th>Performance</th>
<th>Management style</th>
<th>Entrepreneurship culture</th>
<th>Financial access</th>
<th>Technology adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performance</strong></td>
<td>Pearson Correlation</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Management style</strong></td>
<td>Pearson Correlation</td>
<td>0.044*</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Entrepreneurship culture</strong></td>
<td>Pearson Correlation</td>
<td>.266**</td>
<td>-0.095</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>0.095</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Financial access</strong></td>
<td>Pearson Correlation</td>
<td>.246**</td>
<td>-0.051</td>
<td>0.007</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>0.370</td>
<td>0.897</td>
<td></td>
</tr>
<tr>
<td><strong>Technology adoption</strong></td>
<td>Pearson Correlation</td>
<td>.169**</td>
<td>0.007</td>
<td>0.013</td>
<td>-0.094</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.003</td>
<td>0.901</td>
<td>0.818</td>
<td>0.096</td>
</tr>
</tbody>
</table>

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

**4.4.2 Regression Analysis**

The results presented in table 4.7 present the fitness of model used of the regression model in explaining the study phenomena. Management style, entrepreneurship culture, financial access and technology adoption were found to be satisfactory variables in performance. This is supported by coefficient of determination also known as the R square of 51.8%. This means that
Management style, entrepreneurship culture, financial access and technology adoption explain 48.1% of the variations in the performance of Matatu business. This results further means that the model applied to link the relationship of the variables was satisfactory.

**Table 4.7: Model Fitness**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>0.72</td>
</tr>
<tr>
<td>R Square</td>
<td>0.518</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.162</td>
</tr>
<tr>
<td>Std. Error of the Estimate</td>
<td>0.46779</td>
</tr>
</tbody>
</table>

In statistics significance testing the p-value indicates the level of relation of the independent variable to the dependent variable. If the significance number found is less than the critical value also known as the probability value (p) which is statistically set at 0.05, then the conclusion would be that the model is significant in explaining the relationship; else the model would be regarded as non-significant.

Table 4.8 provides the results on the analysis of the variance (ANOVA). The results indicate that the overall model was statistically significant. Further, the results imply that the independent variables are good predictors of performance. This was supported by an F statistic of 9.25 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level.

**Table 4.8: Analysis of Variance**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>14.017</td>
<td>4</td>
<td>3.504</td>
<td>16.014</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>67.181</td>
<td>307</td>
<td>0.219</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>81.199</td>
<td>311</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regression of coefficients results in table 4.9 shows that Management style and performance of Matatu business are positively and significant related (r=0.08, p=0.012). The table further indicates that entrepreneurship culture and performance of Matatu business are positively and significant related (r=0.247, p=0.000). It was further established that financial access and performance were positively and significantly related (r=0.221, p=0.000) while technology
adoption and performance of Matatu business were also positively and significantly related ($r=0.147$, $p=0.000$)

Table 4.9: Regression of Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.241</td>
<td>0.377</td>
<td>3.295</td>
<td>0.001</td>
</tr>
<tr>
<td>Management style</td>
<td>0.08</td>
<td>0.052</td>
<td>1.559</td>
<td>0.012</td>
</tr>
<tr>
<td>Entrepreneurship culture</td>
<td>0.247</td>
<td>0.048</td>
<td>5.164</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial access</td>
<td>0.221</td>
<td>0.043</td>
<td>5.097</td>
<td>0.000</td>
</tr>
<tr>
<td>Technology adoption</td>
<td>0.147</td>
<td>0.04</td>
<td>3.635</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Thus, the optimal model for the study is:

Performance of Matatu business = 1.241 + 0.08 Management style + 0.247Entrepreneurship culture + 0.221Financial access + 0.147Technology adoption
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
This chapter addressed the summary of the findings, the conclusions and the recommendations. This was done in line with the objectives of the study.

5.2 Summary of Findings
This section provides a summary of the findings from the analysis. This was done in line with the objectives of the study.

5.2.1 Management Style
The first objective of the study was to establish the effect of management style on the performance of family owned Matatu Business in Nairobi. The regression results revealed that management style had a positive and significant effect on the performance of family owned Matatu Business in Nairobi. This was supported by majority of the respondents who agreed with most of the statements in the questionnaire.

This finding agrees with that of Ligthelm Veysel Süleyman and Oğuzhan (2002) who observed that the deficiencies in the internal environment are the major cause of failures in small and medium enterprises and they revolve around among others management skills. This problem comes from some specific management issues such as lack of business management training and skills, inability to act as an entrepreneur and limited family business culture. They finally point out that management behavior and actions that are lacking; inability to set strategic goals, plan forward, reluctance to seek advice, lack of management commitment and unwillingness to adapt change.

5.2.2 Entrepreneurial culture
The second objective of the study was to determine how entrepreneurial culture influence the performance of family owned Matatu Business in Nairobi. The regression results revealed that entrepreneurial culture had a positive and significant effect on the performance of family owned Matatu Business in Nairobi. This was supported by majority of the respondents who agreed with most of the statements in the questionnaire.
This finding agrees with that of Fauzul, Takenouchi and Yukiko (2010), who in their study were of the view that entrepreneurship has played an important role in economic growth, innovation, competitiveness and in poverty alleviation. Findings showed that proactiveness, innovativeness, risk taking and overall entrepreneurial orientation were significantly correlated with market share growth. Results further indicated there were positive correlations among proactiveness and entrepreneurial orientation with business performance. However the authors only dealt with the issues of proactiveness, innovativeness, and risk taking to business performance and ignored the other indicators of business performance.

5.2.3 Financial access

The third objective of the study was to assess the effects of financial access on the performance of family owned Matatu Business in Nairobi. The regression results revealed that financial access had a positive and significant effect on the performance of family owned Matatu Business in Nairobi. This was supported by majority of the respondents who agreed with most of the statements in the questionnaire.

This finding agrees with that of Blasco, & Teruel, (2009) who conducted a study on Small firms, growth and financial constraints. Using panel data from Spanish manufacturing firms for the period 2000-2006, the study investigate the effects of internal and external financial access on firm growth. In particular, it examined three dimensions of these financial sources: a) the performance of the firms’ capital structure in accordance with firm size; b) the effects of internal and external financial sources on growth performance; c) the combined effect of equity, external debt and cash flow on firm growth. The study finds that low-growth firms are sensitive to cash flow and short-term bank debt, while high-growth firms are more sensitive to long-term debt. Furthermore, equity capital seems to reduce barriers to external financial access.

5.2.4 Technology adoption

The forth objective of the study was to determine the effects of financial access on the performance of family owned Matatu business in Nairobi. The regression results revealed that technology adoption had a positive and significant effect on the performance of family owned Matatu Business in Nairobi. This was supported by majority of the respondents who agreed with most of the statements in the questionnaire though with a lower percentage as compared with the other objectives.
This finding agree with that of Barney (2004), who points out that technology adoption cultivates organizational capabilities that enable the firm to outperform their competitors. However, adoption of information technology alone may not be a source of competitive advantage because of their wide availability in the market, only when the information technology is embedded into organizational processes (e.g. strategy making), it is expected to offer sustainable benefits. As shown by the lower percentage- slightly above 50% it indicates family Matatu business still has some steps into realization.

5.3 Conclusions

Based on the findings above the study concluded that management style, entrepreneurship culture, financial access and technology adoption had a positive and significant effect on the performance of family owned Matatu Business in Nairobi.

From the findings, the study also concluded that management style is a crucial field within the environment of the Matatu business thus presents numerous potential obstacles. Management competence is often determined by the availability of management and financial information. Managerial skills are important in running any business. Managerial skills assist managers to solve issues that are directly relevant to the current, fast shifting business environment.

In addition, the study also concluded that technology adoption cultivates organizational capabilities that enable the firm to outperform their competitors. However, adoption of information technology alone may not be a source of competitive advantage because of their wide availability in the market, only when the information technology is embedded into organizational processes it is expected to offer sustainable benefits.

5.4 Recommendations

Based on the findings and conclusions, the study recommended that Matatu business owners need to adopt proper management styles so as to improve on performance. A management style which is highly recommended is transformational leadership style.

The study also recommended that Matatu owners need to have entrepreneurial mind. The owners are expected to be risk takers, innovators and easily adaptable to change.
Further, the study recommends that Matatu owners need to access both internal and external finance since it has a positive effect on the growth of firms in terms of sales, capital stock and employment.

Lastly, the study recommend for Matatu owners to invest more resources on technology. It was the feeling and agreed opinion that technology eases the operations of the business and thus earns in more revenue for most business that had embraced the same.

5.5 Recommendation for areas for further study

This study concentrated on the factors affecting the performance of Matatu business in Nairobi County. Thus areas suggested for further study may include focusing on other businesses like manufacturing sector for comparisons purposes. The study concentrated on Nairobi County, and thus, the same study can be conducted on other counties for comparison purposes. There was total agreement from the respondent that research would have been much complete were it that the effects of the regulatory body be included as a fifth specific objective which is now presented as food for thought.
REFERENCE


APPENDICES

APPENDIX I: INTRODUCTION LETTER

Dear Participants,

I am student of MBA at MUA University. I am conducting a research on factors affecting the performance of family owned Matatu business in Nairobi, Kenya. Kindly fill up this information and return. Any information obtained for this purpose will be kept strictly confidential and will only be used for academic purpose. Your cooperation will be highly appreciated in this regard. Thank You!

Yours truly: Chumba
APPENDIX II: QUESTIONNAIRE

This questionnaire is divided into three short sections that should take only a few moments of your time to complete. Please respond by ticking the appropriate box or filling in your answers in the blank spaces provided. This is an academic exercise and all information collected from respondents will be treated with strict confidentiality.

Thank you very much for your cooperation

PART 1: DEMOGRAPHIC INFORMATION

1. Gender of respondents
   - Male
   - Female

2. How old are you? (Years)
   - Less than 30: 
   - 31-40: 
   - 41-50: 
   - Above 50: 

3. What is your level of education?
   - Primary
   - Secondary
   - College
   - University

4. How long have you been in Matatu business?
   - a) less than 1 year
   - b) 2 to 5 years
   - c) 6 to 10 years
   - d) Over 10 years
PART 2: FACTORS AFFECTING THE PERFORMANCE OF FAMILY OWNED MATATU BUSINESS

Section A: Management style

This Section is concerned with assessing the Effects of management style on the performance of family owned Matatu business. Please mark (x) in the box which best describes your agreement or disagreement on each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managerial Experience contributes greatly towards the performance of the Matatu business.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democratic management style contributes greatly to the performance of family owned Matatu business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliative management style contributes greatly to the performance of family owned Matatu business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autocratic management style contributes greatly to the performance of family owned Matatu business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section B: Entrepreneurial Culture
This Section is concerned with assessing the Effects of entrepreneurial culture on the performance of family owned Matatu business. Please mark (x) in the box which best describes your agreement or disagreement on each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk taking is one of the requirements if one wants to succeed in business.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To succeed in business, one has to seriously exercise the art of tolerance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creativity in <em>Matatu</em> business is a major factor to be considered if one wants to succeed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For you to have an impact and therefore make some business performance’s, you must be self confident.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Section C: Financial Access

This Section is concerned with assessing the Effects of financial access on the performance of family owned Matatu business. Please mark (x) in the box which best describes your agreement or disagreement on each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance in Matatu business depends on the investment financial access of the owner of business</td>
<td></td>
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<tr>
<td>Performance in Matatu business depends on the total assets(asset financial access) of the owner of business</td>
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<tr>
<td>Performance in Matatu business depends on the availability of long term financing.</td>
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<tr>
<td>Matatu business can sometimes be financed using borrowings from friends or relative s</td>
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</tbody>
</table>
**Section D: Technology Adoption**

This Section is concerned with assessing the Effects of technology adoption on the performance of family owned Matatu business. Please mark (x) in the box which best describes your agreement or disagreement on each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoption of fleet management system technology contributes greatly to the performance of family owned Matatu business</td>
<td></td>
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<tr>
<td>The use of W.i.f.i technology contributes greatly to the performance of family owned Matatu business</td>
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<tr>
<td>The use of smart Matatu technology contributes greatly to the performance of family owned Matatu business.</td>
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<tr>
<td>Blow test technology that could check drivers for sobriety contributes greatly to the performance of family owned Matatu business.</td>
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</tbody>
</table>
Section E: Performance of family owned Matatu business

This Section is concerned with assessment of the performance of family owned Matatu business. Please mark (x) in the box which best describes your agreement or disagreement on each of the following statements.

Has the revenue improved in the five years?

Yes

No

If yes to the above question, by what percentage range did the revenue of your matatu business improved? Tick appropriately.

<table>
<thead>
<tr>
<th>Year</th>
<th>Less than 1%</th>
<th>2-3%</th>
<th>4-6%</th>
<th>7-10%</th>
<th>Over 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
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<tr>
<td>2012</td>
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<tr>
<td>2011</td>
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<tr>
<td>2010</td>
<td></td>
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</tbody>
</table>