



**DETERMINANTS INFLUENCING PERFORMANCE OF ALTERNATIVE PUBLIC TRANSPORT IN KENYA: A CASE OF
MOTOR CYCLE TRANSPORT, NAKURU COUNTY**

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ABSTRACT

Alternative means of transport referred to as boda boda has been widely adopted in the developing countries as an alternative to the conventional buses and minibuses and as development from the non motorized two wheeler bicycles. In Kenya the industry thrived significantly after the zero rating of motorcycles below 150cc by the government in 2007. The broad objectives were to enhance transport and provide employment to the youth through the creation of transport enterprises. However, developments in the industry have revealed a myriad of negative incidences of fatal accidents leading to loss of lives and property including the motorcycles themselves which raises questions on the economic viability of the venture. This study therefore was designed to establish the determinants of successful implementation of motorcycle transport business. The specific objectives of the study were: to establish the effect of education and training on the performance of motorcycle transport business; to determine the effects of compliance to government regulations on performance of motorcycle transport business; to establish the effects of access to business support services on performance of motorcycle transport business and to find out the effects of entrepreneurial orientation on performance of motorcycle transport business. The study was conducted in Bahati Town among boda boda operators. The study adopted descriptive design to explain the interaction between the determinant variables and performance of motorcycle transport businesses. A sample of 77 motorcycle boda boda operators was selected from the population in Bahati Town using systematic random sampling technique. The study relied on primary data obtained from boda boda operators using questionnaires. After all the data was collected, the researcher conducted coding and data cleaning and analyzed using descriptive statistics such as frequency counts, percentages, mean, mode and standard deviation. Multiple regression analysis was then used to determine the relation between predictor variables (determinant factors) and the dependent variable (performance of motorcycle boda boda businesses). The analysis showed that training and entrepreneurial orientation had the positive (Pearson correlation coefficient =.471 and .419) and significantly influenced performance of alternative public transport. In addition, compliance with government regulations and enterprise transport support services (Pearson correlation coefficient =.098 and .419) did not significantly influence performance of alternative public transport. The study revealed that the two most significant determinants of performance of boda boda businesses were the training and the entrepreneurial orientation. Therefore the study recommends for training and increase support services for boda boda operators should not only focus on the technical and business management skills of operators but also on developing their entrepreneurial orientation as a strategy to enhance best practice, performance and growth in the sector.

Key Words: Performance, Public Transport

INTRODUCTION

This chapter aims at providing sufficient information for better understanding of the study. It examines the global context and then narrows down to the issues that the study will address. The chapter provides the background information, statement of the problem, research objectives and research questions that underpin the study, significance, scope and limitations of the study.

1.1 Background of the Study

The transport industry is one of the industries that has a significant effect on the economic growth and development of a nation (Weisbrod & Reno, 2009). Public transport provides mobility and access to areas of interest to people. People engage public transport services when they want to get access to areas of employment, education, retail, health and recreational facilities, as well as community facilities (Republic of Kenya, 2009). Since the movement of people and goods must occur on day-to-day basis in a working economy, it is certain that the transport sector holds a very critical role to any given nation/society. This importance of the transport sector attracts numerous investments of people who may want to reap the guaranteed returns.

An elaborate public transport system in Kenya can be traced back to 1934, when the Overseas Transport Company of London (OTCL) launched the first local bus in Kenya using a fleet of 13 buses on 12 routes (Mukabanah, 2008). OTCL was later on rebranded to United Transport Overseas Services (UTOS) and its busses registered as Kenya Bus Services Ltd (KBS). Additionally, most of the transport needs were met by taxis. The 1950s saw the introduction of the Matatus on city routes besides the Kenya bus though the operation of Matatus remained illegal until 1973 (Khayesi, 1999). In 1966 the City Council of Nairobi (CCN) awarded United Transport Overseas Services (UTOS) "the then owners of Kenya Bus Services Ltd (KBS) a monopoly franchise to operate a bus service in return for a 25% shareholding stake" (Mukabanah, 2008). By the early 70s, the rural-urban migration in Kenya had grown significantly thus creating a higher

demand for public transport services within the city that KBS alone could not satisfy. Intensified lobbying from the informal and illegal Matatu operators saw the government bow down to pressure to legalize the operation of Matatus as a public transport form in 1973 (Mukabanah, 2008; Khayesi, 1999). At this point individual Matatu owners intensified their investments into the public transport sector.

The availability of competitively priced world class transport infrastructure and related services is essential to support enterprise development. A transport system with adequate capacity and levels of service comparable to other countries with which to compete is vital to move goods and people quickly, effectively and in environmentally sustainable ways (Department of Transport, Tourism and Sport (DTTAS), 2013).

The increasing use of motorcycles in the developing countries for transportation purposes has been ascribed to socio-economic reasons, convenience in negotiating traffic in congested cities and poorly maintained roads, political reasons and the ease of parking in narrow streets. According to Oluwaseyi, Edward, Eyinda and Okoko (2014) the use of motorcycle for public transport is not a new commercial public transport system, it has been the common mode of inter-city transportation in most riverine areas and in dispersed settlements around the globe.

Torres (2001) identified the major reasons for the emergence of the motorcycles as means of urban mobility in Nigeria and other countries of the world as the inadequacy and ineffectiveness of the conventional modes of transportation such as the buses and taxis, and ferry and train in very few cities. Further the overland modes have been unable to provide door to door services, more so that there were no defined bus stops and specific public transport routes. In addition, Torres identified that the sorry state of roads in developing countries played a key role; larger proportions of the urban road network were unpaved, while most paved roads were in poor condition. This situation invariably made it difficult for commercial motorists to link several

routes and access to many activities areas; motorcycle operators could easily maneuver the bad roads.

Motorcycles also provided a faster means of transport service in the face of poor road condition and persistent traffic congestion. The high level of unemployment and underemployment also provide the impetus for the secondary and university graduates to earn a living and a steady income. As a result, most motorcycle operators get involve in motorcycle service just to secure a temporary employment. Cox (2010) applauded the socio-economic benefit of the boda boda industry as it was a considerable direct and indirect income generator.

Over the past decade there has been a significant growth in the use of motorcycles as Alternative means of commercial public transport mode in countries in sub-Saharan Africa, Latin America and Asia (ITDP, 2009). In Kenya, the industry flourished significantly in 2008 after the zero rating of motor cycles below 150cc by the government as a means of enhancing both rural and urban transport and job creation for the youth (KNBS, 2010). While offering certain transport advantages in the form of easy maneuverability, ability to travel on poor roads, and demand responsiveness, commercial motorcycle service growth has also led to an increase in road accidents and traffic management problems. Statistics point out to Boda Bodas as a major cause of traffic accident deaths in Kenya accounting for 13.50% of the total number of deaths (NTSA, 2014).

1.1.1 Global Perspective

Globally, the origin of two wheeler bicycles can be traced way back in 1860s by Pierre Michaux, a blacksmith in Paris who formed the first company to construct bicycles with pedals. Developments to motorized two wheeler later followed in other European countries before moving to the United States of America (Georgano, 2002). In the late 1970s the market was taken over by Japanese manufacturers, Honda, Kawasaki, Suzuki, and Yamaha dominate. Currently, there are an estimated 300 million motorized 2 and -3 wheelers on the road, worldwide. A large majority (85 percent) of them are in Asia and African countries.

The fleets are also growing the fastest in Asia, though significant growth is occurring on most continents including in highly motorized countries such as North America and Western Europe. In the European Union, the fleet of motorcycles reached 28.4 million vehicles in 2005, increasing by 28 per cent from 2000 to 2005. In the Netherlands, the number of motorcycles has doubled since 1998, reaching 634,000 motorcycles and about 500,000 mopeds and scooters, (for about 16.4 million people and 18,000,000 bicycles).In the United States, motorized 2 wheelers have become the fastest growing mode since 1990. The number of new registrations of 2 wheelers grew by 262% between 1997 and 2003 (Institute for Transportation and Development Policy (ITDP), 2009).

Globally, the use of motorcycle transport can be traced way back in 1860s by Pierre Michaux in Paris. However, the developments to motorized two wheeler later followed in other European countries before moving to the United States of America (Georgano, 2002). In global perspective, motorbikes are the primary means of motorized transport. In Taiwan for instance, the number of automobiles per ten thousand people is around 2500, and the number of motorbikes is about 5000. In Vietnam, motorbike use is extremely high due to a lack of public transport and low income levels that put automobiles out of reach for many. In Vietnam, motorized traffic consists of mostly motorbikes.

The four largest motorbike markets in the world are all in Asia: China, India, Indonesia, and Vietnam. The motorbike is also popular in Brazil's frontier towns. During the global economic downturn of 2008, the motorbike market grew by 6.5%. Recent years have seen an increase in the popularity of motorbikes elsewhere. In the USA, registrations increased by 51% between 2000 and 2005. This is mainly attributed to increasing fuel prices and urban congestion (Nkede, 2012).

In Africa, motorcycles can be traced way back to 1960's, however its commercialization can be traced clearly after the Structural Adjustment Programme by World Bank in early 1980's. The global economic recession and the fall-out of the structural adjustment programme between 1987 and 1993 greatly affected the purchasing power of the governments in

developing nations and the populace to replace existing public transport fleets of buses and taxis (Kumar, 2011).

In Nigeria, by the late 1980s the transportation sector of the economy was greatly affected by the Structural Adjustment Programs (SAPs) and as a result began to feel the impact of the steady drop in the supply of transport services and the mobility problems started in a different dimension (Oyesiku & Odufuwa, n.d). As a result of these inadequacies of government operated and controlled public transport companies there emerged other modes of public transportation among which are the motorcycle and tricycle. Today, the two-wheel motorcycles popularly called Okada have become an important means of passenger transportation in most urban and semi-urban centres of Nigeria. An estimated 70 percent of Nigerian cities with over 250,000 inhabitants rely on motorcycles for intra-city public transport services (Ogunsanya and Galtima, 1993).

In Uganda, the origin of Boda boda services can be traced to Busia County of Tororo District in Eastern Uganda in the mid-1960s (Malmberg Calvo, 1994). Though it started with two wheel peddle bicycles, later in 1980s motorcycles were introduced into the market. The introduction of motorcycle-based services is widely reported to have resulted from the initiative of a local firm, BMK (Uganda) Ltd (Benmaamar, Ellis & Dunkerley, 2001). The company had been importing the vehicle and spare parts since 1986.

Boda Bodas in Uganda were used in providing a short-distance, low-capacity service that is able to serve low-density demands, or in areas where access is restricted by the width or quality of the route. Majority operate from 'stands' in towns, in trading centres, and at the bulk public passenger service vehicle stops along main roads that provide access to feeder routes. It is estimated that Boda boda transport in Uganda accounts for 30% of urban and rural operations.

Within East Africa, the two wheeler transport service is a Ugandan innovation commonly known as "boda boda" which developed from a small beginning in the 1960s in the Busia border region with Kenya

(Malmberg- Calvo 1994). These two wheelers were used to smuggle goods across the Kenya-Uganda border in Busia. Hence, the term Boda Boda was crafted from an English word 'border border' in line with the utilization of the boda boda transport across the borders. Initially this transport started with the manually operated bicycles before the innovation to motorized bicycles and the latest concept of the use of motorcycles. The complementing of bicycles with light motorcycles/ motorbikes has greatly improved the boda boda transport business by extending the range and load carriage of services.

1.1.2 Local Perspective

In Kenya similar to Uganda, boda bodas were introduced in the 1960s in the town of Busia. From there they spread to other rural and urban areas in both countries, with a faster rate of diffusion occurring in Uganda. Initially they were used to smuggle goods across the Kenyan-Ugandan border but in time they transformed into an informal 'for hire' type of transport service catering largely to passenger needs (Mutiso & Behrens, 2011).

In Kenya, boda bodas provide passenger taxi services both in urban and rural. They have also been used to transport goods at house hold level and also by small scale traders who have gained greater and flexible mobility and enhance their incomes through cheap and easy transportation of goods. The motorcycle Boda boda business upsurge is a recent Kenyan phenomenon. This was as a result of the government of Kenya waiver of tax on imported motorcycles in 2008. This was meant to promote job creation in the transport sector to the youth. Since the gazzement of the zero rating on taxes, the number of motorbikes leaped from 3757 units in 2005 to 91151 in 2009 (Kenya National Bureau of Statistics (KNBS), 2010). Latest report by World Health Organization (WHO) indicates that between the year 2005 and 2011, motorcycle registration rose by almost 40-fold. In 2011, motorcycles made up 70% of all newly registered vehicles (WHO, 2012a). The majority of motorcycles in Kenya are used as boda bodas which are emerging as an important means of public transportation.

The rise in the motorcycle transport has had a significance impact on the livelihood of youth. The

industry growth has enabled Boda boda riders to increase their earnings to average of 50%. During the June 1st 2011 Madaraka Day speech, President Kibaki also cited the significant role of Motorcycle Boda Boda operators in improving the livelihood of Kenyans and job creation to the youth.

Amidst the benefits of motorcycle business in enhancing transportation and job creation, motorcycles pose significant challenges in developing countries that are not faced by the rest of world (World Bank, 2008). Concerns have also been raised on the rising accidents to the riders and passengers. Globally, of the 1.2 million road deaths occurring each year, nearly half (46%) affect vulnerable road users comprising pedestrians, pedal cyclists and motorcycle riders (Odero, 2009). In Kampala motorcycles have been found to be responsible for 50% of road traffic crashes (Odero, 2009). In Kenya, the proportion of accidents resulting from motor cycles have significantly risen from 1.7% in 2005, to 4.2% in 2008 and 6.1% in 2009 (Odero, 2009).

Recent statistics from National Transport and Safety Authority (NTSA) in Kenya, indicate that, although the overall number of accidents and resulting deaths have significantly reduced for all other categories of vehicles, the trend is different for motorcycles where accidents have significantly increased. NTSA further reveals that for the period between January and September 2013, 10,656 accidents were reported compared to 8,478 accidents reported in a similar period in 2014. Of these, 848 accidents in 2013 involved motor cyclists compared to 900 in 2014. Overall the number of deaths resulting from road accidents in 2013 was 2266 out of which 220 were motorcyclists while out of the 2008 deaths in 2014, 271 involved motorcyclists. These statistics excludes other fatalities such as critical injuries and disabilities.

Overall the number of road accidents reported between January – September 2014 declined by 20.44% compared to the same period in 2013. However, the case of motorcycle mishaps was significantly different, the overall the number of accidents caused by motorcyclists increased from 7.96% in 2013 to 10.61% in 2014. Motorcyclists accounted for 13.50% of traffic accident deaths in Kenya (NTSA, 2014). A study at Naivasha hospital

revealed that 36% of patients who were presented to the emergency department because of a road traffic crash were motorcyclists (WHO, 2012a). This implies that motorcyclists were in a great danger and extremely vulnerable to fatal road accidents, this was also noted by Muli (2013). The accidents were noticeably putting a heavy burden on families, communities and the health system in general.

The losses resulting from road transport accidents globally are estimated at US\$500 billion a year, of which about US\$100 billion is lost in the developing and the transition countries (WHO, 2012b). The annual losses in developing countries exceed the total annual development aid and loans received by these countries (Manyara, 2013). This therefore raises the question on whether motorcycles are a job creation strategy or a death trap for the riders.

In Bungoma South, Motorbike taxis constitute a part in a working unity to maintain the society into a whole. They constitute the principal means of public transport in Bungoma South and transport individuals (between one to four in number) from one place to another. During the academic year, motorcycles are used to ferry students to and from school. As a result, the volume of transport increases due to the many students of the various primary and secondary school. In addition, motorbike taxis play the role of an ambulance as they transport patients in and out of the hospital. In cases of emergency, they are usually called upon for their flexibility and easy access through rough roads, bumpy paths and other foot paths (Nandwoli, 2014).

A study conducted by Mutiso & Behrens (2011) to evaluate the role of Boda Boda Bicycle Taxis on Urban Transport in Nakuru and Kisumu Cities found out that, the bicycle taxis played a significant role in transportation. In their operations, typically only one passenger is carried, but occasionally two passengers are transported. Operators sometimes wait for their passengers to conclude their activities in order to provide a return trip service. Many operate without insurance cover for either themselves or their passengers.

1.2 Statement of the Problem

The significant growth in the use of motorcycles as an alternative means of commercial public transport play an important role in countries in sub-Saharan Africa, Latin America and Asia (ITDP, 2009). In Kenya, the industry flourished significantly in 2008 after the zero rating of motor cycles below 150cc by the government as a means of enhancing both rural and urban transport and job creation for the youth (KNBS, 2010). While offering certain transport advantages in the form of easy maneuverability, ability to travel on poor roads, and demand responsiveness, however, commercial motorcycle service growth has also led to an increase in road accidents and traffic management problems. Statistics point out to Boda Bodas as a major cause of traffic accident deaths in Kenya accounting for 13.50% of the total number of deaths (NTSA, 2014).

Nevertheless, the situation appears to be worsening owing to the increase in the number of accidents recorded in the industry. While there was a decline in the total number of road accidents reported between January – September 2014 of 20.44%, the number of accidents caused by motorcyclists increased from 7.96% in 2013 to 10.61% in 2014 (NTSA, 2014 a). As a result, motorcycle Boda Bodas have led to the burden of cost of medication, disability, loss of parents and guardians and loss of livelihoods to affected families which has not been accounted for in the statistics (WHO, 2012). The most affected group is the youth who operate the Boda bodas and whom the initiative was purported to help by creating employment. On the contrary, while Boda boda business has translated to critical losses to some youth.

Government efforts to regulate the market have also been ineffective owing to the nature of the business. There is also no government agency solely charged with regulating the lucrative yet dangerous industry in Kenya. In addition, little research has also been advanced to understand the enabling factors for success in the industry. This study sought to investigate the determinants influencing performance of alternative public transport in Kenya.

1.3 Objectives of the Study

The general objective of the study was to establish the determinants influencing performance of alternative public transport in Kenya.

1.3.1 Specific objectives of the Study

The specific objectives of the study were to:

- I. Establish the influence of training on the performance of alternative public transport in Kenya
- II. Determine the influence of compliance with government regulations on performance of alternative public transport in Kenya
- III. Determine the influence of enterprise transport business support services on performance of alternative public transport in Kenya
- IV. Find out the influence of entrepreneurial orientation on performance of alternative public transport in Kenya

1.4 Research Questions

The study sought answers to the following questions:

- I. What is the influence of training on the performance of alternative public transport in Kenya?
- II. Does compliance with government regulations influence performance of alternative public transport in Kenya?
- III. How do transport business support services influence performance of alternative public transport in Kenya?
- IV. What is the influence of entrepreneurial orientation on performance of alternative public transport in Kenya?

1.5 Significance of the Study

Motorcycle *boda bodas* have attracted a lot of youth countrywide as a business activity. However, the dynamics of this business have not been properly studied to establish the prerequisites for its success as a business venture for the youth. This study explored the requirements for successful implementation of this business. These findings would therefore assist the youth, riders and investors in this industry in

understanding the business dynamics of motor cycle transport business, therefore enhancing its success.

Secondly, this study would provide information to the government on the current status of this industry and the impact it has had in empowering the youth economically and in enhancing transport and communication. The government could also benefit by getting information that could be useful in designing the framework for regulation of the industry. This could help the police and the citizens to identify and track motorcycles involved in criminal activities.

Finally establishing the role of education training on the performance of the industry will help the government establish minimum qualifications for motorcycle riders which coupled with regulations would minimize the number of accidents and losses incurred as a result of accidents. Implementation of this knowledge could help the general public who utilize motorcycle transport both in the rural and urban areas. The research also generated literature for further research in this field.

1.6 Scope of the Study

This study focuses on the determinants of the performance of motorcycle transport business by zeroing on training, enterprise awareness of riders and the industry regulation. The study was conducted in Bahati Town in Nakuru County among motorcycle transport riders. This constituted both an urban and rural setting owing to its proximity to Nakuru Town. Conducting a study in this site therefore generated an understanding on the determinant of success of *boda boda* business in rural and urban environments. The study covered a period of two years that is 2014 and 2015.

1.7 Limitations of the Study

This study encountered some challenges such as unwillingness by some respondents to reveal information which they considered confidential. However, the researcher assured them that the information they would offer would be held confidentially and would be used for academic purposes only. There was also bureaucracy in getting approval to carry out research the study area. Written approval will be sought from the county and *boda*

boda management. The study sought written approval letter from the university and accorded the necessary assistance to avoid bureaucracy and facilitated smooth data collection process. The targets groups that the study intended to focus on was quite busy carrying out their duties and sometimes were not available to fill the questionnaire promptly. The researcher had to be patient and waited till when it was convenient for them to fill the questionnaires.

LITERATURE REVIEW

2.1 Introduction

The chapter discusses the literature relevant to the study. Literature has been organized in two categories, theoretical review of relevant theories and empirical review on the studies conducted. Further the chapter highlights the gaps in literature and a conceptualization on the relationships between research variables.

2.2 Theoretical Review

Theoretical frameworks are explanations about a phenomenon and according to Marriam (2001) theoretical framework provides the researcher the lens to view the world. A theory is an accepted fact that attempt to provide a plausible or rational explanation of cause- and-effect (causal) relationship among a group of observed phenomenon (Kothari, 2004). Several theories and models have been put forward by scholars to explain the field of variable understudy of public transport. Therefore, the study borrows from a wide range of theories: the theory of innovative enterprise, theory of entrepreneurial orientation dimensions, theory of human resource and organizational outcomes.

2.2.1 The Theory of Innovative Enterprise

This theory was developed and advanced by Lazonick (2013) to explain the driving forces to innovation and business. The theory states that, a business enterprise seeks to transform productive resources into goods and services that can be sold to generate revenues. A theory of the firm, therefore, must, at a minimum, provide explanations for how this productive transformation occurs and how revenues are obtained. These explanations must focus on three

generic activities in which the business enterprise engages: strategy, organization, and finance.

Strategy allocates resources to investments in developing human and physical capabilities that, it is hoped, will enable the firm to compete for chosen product markets. Organization transforms technologies and accesses markets, and thereby develops and utilizes the value-creating capabilities of these resources to generate products that buyers want at prices that they are willing to pay. Finance sustains the process of developing technologies and accessing markets from the time at which investments in productive resources are made to the time at which financial returns are generated through the sale of products. The need for these social conditions derives from the uncertain, collective and cumulative character of the innovation process (Lazonick and O'Sullivan 1998; O'Sullivan 2000).

The motorcycle transport is an innovation in the transport businesses geared to harnessing the benefits of two wheeler motorized vehicles in resolving transport crisis in both urban and rural areas. However, the success in this investment depends on the choice of business strategy by the operators especially on the choice of technologies, routes among others. Further, the organization of the industry is very critical in enhancing success. Organization also includes industry regulation and the organization of internal resources to enhance productivity. The theory relates to the influence of non-compliance of government regulations on performance of alternative public transport in Kenya

2.2.2 Theory Entrepreneurial Orientation Dimensions

The specific dimensions of Entrepreneurial Orientation (EO) were introduced for the first time by Miller (1983). He suggested that the entrepreneurial firm is one that "engages in product market innovation, undertakes somewhat risky ventures, and is first to come up with 'proactive' innovation, beating competitors to the punch (Miller, 1983). Accordingly, Miller identified the salient dimensions of EO as innovative, risk taking, and proactive.

To advance on this theory, Lumpkin and Dess (1996) proposed adding two additional dimensions, i.e. autonomy and competitive aggressiveness, to complement the three dimensions introduced by

Miller (1983): innovative, risk taking and proactive. Lumpkin and Dess (1996) argued that, to be successful, a firm requires autonomy from strong leaders or creative individuals, without any restrictions from the firm's bureaucracy. The other dimension, competitive aggressiveness, describes Miller's idea (1983) of "beating competitors to the punch". It represents how a firm responds to threats and not only seizes opportunities as indicated by Miller's proactive dimension. The current study will utilize the dimensions of entrepreneurial orientation proposed by Miller, Lumpkin and Dess to assess the EO of motorcycle transport operators in relation to enterprise performance. The theory relates to the influence of entrepreneurial orientation on performance of alternative public transport in Kenya

2.2.3 Theory of Human Resource and Organizational Outcomes

Guest (1987) developed a theoretical framework to show how HRM policies can affect human resources and organizational outcomes. The strength of Guest's model is it is a valuable analytical framework for studying the relationship between HRM policies and organizational performance, because it expresses pathways for more careful, clear and ease of empirical testing. He saw commitment as a vital outcome, concerned with the goals linking employees with firm performance as the goal of quality is important to ensure the high quality of products and services. Therefore, training and development policy play an importance role in HRM and contribute to improved strategic integration, employee commitment, flexibility and quality. HRM outcomes can then lead to high job performance, high problem solving activity, high cost effectiveness, and low turnover, reduced absences and fewer grievances. The theory relates to the influence of training on performance of alternative public transport in Kenya

2.2.4 Government Regulation Theory

Boyer & Aglieta (1976) who were among the founders of regulation school, stated that broad theory is the study of the transformation of social relations, which creates new forms- both economic and non-economic organized structures and the producing a determinate structure, the mode of reproduction. This theory or approach looks at

capitalist economies as a function of social institutional systems and not just as government's role in the regulation of the economy, although the latter is the major part of the approach. The above approach seeks to put into perspective that an economy would be more efficient if there is presence of regulations governing institutions such as transport sector. Indeed Thomas K. MC Craw, Prophets of regulation wrote about the railway system in the US in which it was evident that when the federal government was in control efficiencies were noted and the common citizens were not exploited.

Based on the above framework, it is notable perhaps that in the Kenyan context on transport industry if the government draws policies to regulate the sector and build capacity to enforce the rules in all its facets, more investors' would be attracted to invest in the industry thus driving quality in service provision and reducing the cost. The above theory relates to non-compliance with government regulations on performance of alternative public transport in Kenya

2.3 Conceptual Framework

According to Jabareen (2008) a conceptual framework is a network of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena. The concepts that constitute a conceptual framework support one another, articulate their respective phenomena, and establish a framework-specific philosophy According to Orodho (2009) a conceptual framework describes the relationship between the research variables. Jabareen (2008) argues that a variable is a measurable characteristic that assumes different values among subjects. An independent variable is that variable which is presumed to affect or determine a dependent variable (Jabareen, 2008). A dependent variable is a variable dependent on another variable like the independent variable. A dependent variable is the variable which is measured in the research study (Everitt, 2002).

Kaplan, (2002) defines conceptual framework as a researcher's own position on the problem and gives direction to the study. A Conceptual frame work is a hypothesized model identifying the concepts under study and their relationships. According to Mugenda and Mugenda (2003), the purpose of a conceptual framework is to help the reader to quickly see the

proposed relationship between the independent and dependent variables.

Mathieson et al (2011) defined a conceptual framework as a virtual or written product, one that explains, either graphically or in narrative form, the main things to be studied- the key factors, concepts, or variables and the presumed relationships among them. Conceptual framework, according to educational researcher Stratman & Roth (2013), are structured from a set of broad ideas and theories that help a researcher to properly identify the problem they are looking at, frame their questions and find suitable literature. Most academic research uses a conceptual framework at the outset because it helps the researcher to clarify his research question and aim.

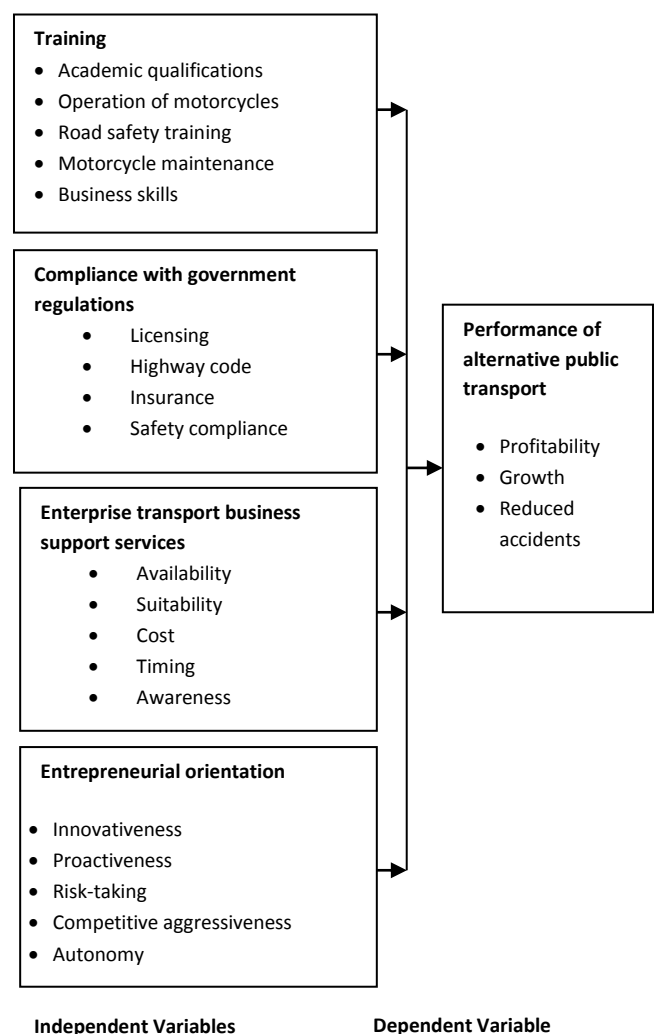


Figure 2.1: Conceptual Framework

2.3.1 Training

Education expands the horizon and stimulates aspirations of entrepreneurs while broadening the perspectives on the essence of planning for growth. In agreement to the above, Ellis et al, (2007) & Sonfield et al, (2001) add that education equips entrepreneurs with the knowledge and skills they need to more effectively manage, be more strategic and succeed in their businesses. Education strengthens entrepreneur's internal locus of control, belief in oneself and the ability to analyze scenarios and provide solutions to business challenges.

A comparative study that considered the roles of uncertainty and risk aversion when assessing the growth of women entrepreneurs in sub-Saharan Africa by United Nations Conference on Trade and Development (UNCTAD), (2001), revealed that these entrepreneurs suffer in many ways from information failure in a wide sense. The study indicated that the majority of women entrepreneurs who had lower than senior school, relied on friends/family and local gossip for information which has the potential to be inaccurate, incomplete or biased, they kept no accounts or records of business transactions and those who did keep were self taught or taught by parents/ siblings.

Occupational Health and Safety Act, 2007 states all plants, machinery and equipment whether fixed or mobile for use either at the workplace or as a workplace, shall only be operated by a competent person (Occupational Safety and Health Act (OSHA), 2007). Therefore other than the general education qualifications of riders, the level of training play a significant role in operating the motorcycle machines with both legal and economic implications.

2.3.2 Compliance with Government Regulations

As the economic power of private sector business has grown over the past century, so too has the number of laws regulating business activity. Indeed, some have argued that the amount of government regulation of private sector business directly reflects the level of economic power within the private sector (Glaeser and Shleifer, 2003). Overall, economic theory points to conflicting forces regarding the question of

whether the threat of or use of lawsuits places a greater burden on small relative to large businesses. A recent study by Pendell and Hinton (2004) suggests that the legal costs per dollar of revenue are substantially greater for small relative to large businesses. Motorcycle transport business has been subject to governments regulations governed by the traffic laws in different countries. However, the level of compliance remains a challenge.

Traffic accidents caused by commercial motorcyclists are common occurrence especially in the developing world. They have been known to be responsible for a large percentage of orthopedic patients in some urban hospitals (Gbadamosi, 2006). In recent times, the frequent occurrence and fatalities of traffic accidents caused by commercial motorcyclists in urban areas has led to severe legal suits and debates on the suitability of this mode of transport especially in the urban space, particularly on the safety of the operators and their passengers.

The new traffic rules in Kenya implemented by the NTSA require that motorcycle riders should have the protective gear and the motorcycles should be licensed. The protective gear consists of two helmets, one for the rider and the other for the passenger, the rider should always wear a reflective jacket for easier visibility and identification by other road users. The riders should have valid driving licenses while the motorcycles should have insurance licenses so as to insure both the rider and the passenger against any eventuality.

2.3.3 Enterprise Transport Support Services

Enterprise support services are defined as those non-financial services and products offered to entrepreneurs at various stages of their business needs. These services are primarily aimed at skills transfer or business advice. Edgcomb & Girardo (2012) further states that microenterprise development organizations that offer financing earn revenues through interest and fee income that partly cover their operating costs. Therefore, microfinance are categorized as social enterprises offering micro enterprise support services. The field of business support has been growing alongside the SME development process internationally. Enterprise

support services are important because they can assist entrepreneurs to run their business more effectively and, if appropriately applied, can act as an enhancer of access to finance and as an alternative form of “collateral” in circumstances where tangible collateral may be an impediment to meeting traditional security requirements.

Over the past several years, actors in the enterprise support sector have developed a growing recognition that early-stage support specifically, in the form of business incubators and accelerators is a key intervention to addressing the burden shouldered by enterprises that are pioneering new business models otherwise referred to as the “Pioneer Gap.” Business incubators and accelerators support early-stage entrepreneurs by providing them with: business development support infrastructure support, access to office space, shared back-office service, network support and financial support (in the form of grants/investments). There are four stages that these firms typically progress through, from the blueprint stage, to validation, preparation, and finally, scale. The “Pioneer Gap” occurs between the early stages in an enterprise’s growth, when it is not considered investable by many (Aspen Network of Development Entrepreneurs and Village Capital, 2013).

2.3.4 Entrepreneurial Orientation

Entrepreneurship in developing countries is arguably the least studied significant economic and social phenomenon in the world today (Reynolds et al., 2004). However, enterprise development is almost universally promoted in developing countries, and is often justified on the grounds that the emergence of entrepreneurs is an important mechanism to generate economic growth (Kodithuwakku and Rosa, 2002).

Contemporary entrepreneurship stressed the importance of a new entry for business innovation referring to the process of creative destruction (Schumpeter, 1936). Miller (1983) clarifies the construct of entrepreneurial orientation and defines an entrepreneurial firm as one that “engages in product marketing innovation, undertakes somewhat risky ventures, and is first to come up with proactive innovations, beating competitors to the punch.”

According to Miller firms are entrepreneurial if they are innovative, risk taking, and proactive.

In general therefore, entrepreneurial orientation refers to top management’s strategy in relation to innovativeness, proactiveness, and risk-taking (Lumpkin and Dess, 1996). Entrepreneurial orientation (EO) has been suggested as an essential attribute of high performing firms (Lee and Peterson, 2000). A number of studies indicate that entrepreneurial organizations should be conceptualized as possessing the three main characteristics innovativeness, risk-taking, and proactiveness to assess a firm’s entrepreneurial orientation (Covin and Slevin, 1989). Hart (1992) identified competitive aggressiveness and autonomy as additional components of the EO construct. Competitive aggressiveness is the intensity of a firm’s effort to outperform rivals and is characterized by a strong offensive posture or aggressive responses to competitive threats. Autonomy on the other hand refers to independent action undertaken by entrepreneurial leaders or teams directed at bringing about a new venture and seeing it to fruition.

Today’s dynamic, global, and challenging business environment requires a firm to be entrepreneurial if it is to survive and grow. Runyan et al., (2008) examined EO versus Small Business Orientation (SBO), and their impact on small business performance, as well as whether these effects are moderated by longevity of 267 small firms in USA. Firms are grouped based on the age as younger and older firms. Findings revealed that EO and SBO are unique constructs and performance is not the same in these groups: for the younger group, only EO significantly predicts performance while for the older group, only SBO significantly predicts performance.

2.3.5 Performance of Alternative Public transport

Alternative public transport is crucial for economic development in any nation. To achieve economic growth and poverty reduction, good physical access to resources and markets must be available. In many developing nations, the availability of the said resources is sometimes challenging thus the underfunding of the transport sector (Thoopal, 2000). Chitere and Kibua (2004) argue that the availability of

adequate capital is very key to the development and growth of the public transport sector. The concern is therefore how to source this crucially needed financing to invest in the public transport sector. Chitere and Kibua (2004) further lament that the initial capital to invest in public transport is large hence difficult to rise. They add that most operators finance their purchases through work-and-pay system or through their own finances, a source that is limiting most of the time.

Raballand & Macchi (2008) discuss that much of the transport price burden in Africa has to do with the overall political economy of freight logistics as well as the role played by cartels. African countries provide an easier market for cartels to exist due to the thinness the markets have particularly when compared to the Asian and European markets. However, it should be noted that market thinness does not necessarily lead to the existence of cartels (Ibid).

Macchi (2008) add that given the significant role the public transport sector plays in the economy, hiked fares indirectly affects economic growth since the public's movement and transportation is restricted. Thoopal (2000) and Wright (1993) argue that this has influenced most governments to intervene by controlling prices. The Kenyan government has however not heeded to this; in fact recent surveys have established that hiking of prices has become a common thing particularly during festive seasons or when the demand is high.

2.4 Empirical Review

2.4.1 Training

A study conducted by Yakubu (2012) to assess the determinants of earnings among commercial motorcycle operators in Kwara State, Nigeria compared the operator's education qualifications and their earnings per day. The findings revealed that, the daily earnings of operators with incomplete junior Secondary education were higher in some cases than those who completed Post Secondary education. Which implied that the education qualifications did not determine the daily earnings per day. The study is based on the daily earnings as an indicator of

performance. However, use of daily earnings alone may not be sufficient measure of enterprise performance. Daily earnings are equivalent to sales, therefore the study could further evaluate on the net profits. Arosanyin, et.al, (2011) in an analysis on the employment generation and earnings in the informal transport sector also concluded that there was no serious education required to operate in the informal sector.

Contrary to the studies by Yakubu (2010) and Arosanyin (2011), studies by World Bank (2005) and International Labour Organization (ILO), (2003) on the factors affecting the performance of women owned enterprises adversely cited that lack of entrepreneurial, managerial and marketing skills as key determinants of performance of women owned enterprises. This implies that studies by Yakubu and Arosanyin did not focus on motorcycles as business enterprises but as a source of employment. This current study however focuses on motorcycle transport as business enterprises therefore performance will be evaluated from a range of performance indicators.

In Kenya, a study conducted by Luchidio, Kahuthia-Gathu & Gatebe (2013) to assess the impact of training Boda Boda operators and safety status in Kakamega County, Kenya revealed that majority of boda boda operators received informal training since over half of the boda boda operators were trained through apprenticeship, only one third of boda boda operators attended driving school while those who learned how to ride by their own initiative were 16%. Further, the study established a strong relationship between the place where the boda boda operators trained their driving and causes of accidents. Majority of accidents resulting from careless driving were majorly caused by those who trained from other people while those from driving school contributed less. Further analysis on the ignorance to traffic rules revealed that majority of riders defying traffic rules did not attend formal training in diving schools.

Luchidio et al., (2013) however focused on training from the perspective of safety and the propensity to cause accidents owing to the nature of training. The economic impact of the accidents were overlooked

despite the damages, injuries, losses, compensations, fines and penalties that follow as consequences for poor training. This study will seek an understanding on how the training impacts on motorcycle transport business by relating the level of training and performance of the motorcycle transport enterprises.

2.4.2 Compliance with Government Regulations

Musilimu & Oluwole, (2014) in South Western Nigeria while assessing the level of compliance of commercial motorcyclists to traffic rules on urban roads revealed a rampant irrational behavior of commercial motorcyclists on urban roads attributable to inadequate training, illegal possession of driving license as well as the inability of the Police to enforce traffic rules and regulations among this category of transporters. The operators were mostly young men with over 84% under 40 years of age therefore prone to deviance including in observing traffic rules. As a result, the non-compliance led to traffic accidents in the urban centres. The study further revealed that in Nigeria, except for the Lagos State and part of the Federal Territory, there was little or no serious government policy addressing the operations of commercial motorcyclists with a view to cutting down the rate of motorcycles accidents.

Oluwaseyi, et al., (2014) while evaluating the performance of Motorcycle Operation, as a Means of Urban Mobility in Lokoja, Nigeria established through an extensive interview with the Sector Commandant of Federal Road Safety Corps Lokoja that, majority of motorcycle crashes were attributable to over speeding of the cyclists, over loading, rough overtaking of the riders, dangerous riding, bad road and loss of control by the riders. These emanated from non-compliance of most of the cyclists to traffic rules and safety. Further, majority of riders had failed to use their safety materials that could have enhanced safe riding and reduced the accidents occurrences. This implies that the large number of accidents observed involving commercial motorcycles in Nigeria emanated from the non compliance to traffic rules. The study however did not focus on the cost of non compliance on the performance of commercial motorcycle transport enterprises which will be addressed in the current study.

However, a study by Nandwoli (2014) in Bungoma South Sub-County, Bungoma County, Kenya revealed that most of motorcycle boda boda riders avoided undergoing the training process due to the costs involved in the driving schools or booking for road test exams. The findings also gave an indication that a significant number of the riders were not well prepared to comply with the traffic rules and regulations. As a result there was friction between the riders and the law enforcers. This resulted in a standoff where the riders boycott operations accusing the police of harassment. The low level of compliance and the unwilling riders to comply with the traffic rules therefore disrupted business and increased the cost of running the business.

2.4.3 Enterprise transport Support Services

The concept of enterprise support services has been widely adopted in developing small scale businesses which are vital in economic growth. In a survey conducted by Edgcomb & Girardo (2012) to describe the characteristics of business development services and how their work has changed over the two years 2008 – 2010 the findings revealed that, the number of institutions offering enterprise support service increased significantly between 2008 and 2010. The number of individuals assisted grew as well, from 61,833 in 2008 to 110,791 in 2010 for the 366 support institutions under survey.

2.4.4 Entrepreneurial Orientation

A study conducted by Masanga (2010) to determine the factors influencing the income of 'boda boda' entrepreneurs in Siaya District, revealed that attitude was an important determinant of the entrepreneurial performance of the 'boda boda' entrepreneurs. Those with a positive attitude performed significantly better than those with negative attitude towards the enterprise. This study fell short of terming attitude as entrepreneurs' orientation. The current study will look into the various dimensions of entrepreneurial orientation of an individual in relation to the performance of the boda boda enterprises.

Gathenya & Bwisa (2011) while analyzing the interaction between entrepreneurs characteristics on business dynamics in small and medium enterprises in

Kenya assessed the dimensions of entrepreneurial orientation by focusing on planning intensity, locus of planning, planning flexibility and scanning intensity a scale developed based on arguments from Hitt et al (2001). This study would also consider these metrics in assessing the entrepreneurial orientation on performance of motorcycle transport enterprises.

2.4.5 Performance of Alternative Public transport

Various studies have been designed to assess the performance of motorcycle businesses in different economies. This section seeks to understand the metrics adopted in assessing performance their strengths and weakness with a view to identify the suitable metrics to be adopted for the current study. Kokwaro & Ajowi (2013) sought to assess the competitive forces influencing business performance of bicycle taxis in Kisumu City, Kenya based on Michael potters five competitive forces model. The study however determined the influence of these forces on performance by asking the respondents to cite the extent to which performance was affected by the various forces. The study however lacked defined metrics of performance assessment.

Mwobobia (2013) in a separate study to evaluate the critical success factors in the motorcycle boda boda business in Nairobi, Kenya also evaluated various factors affecting performance including: managerial infrastructure, human resource, technology and product innovation, service distribution, finance/budgets, government direct. However in assessing the performance, the study use daily earnings and the riders rating on the performance of their enterprises. Daily earnings alone are not solid indicators of performance whereas the use of self rating on enterprise performance is subject to bias. Unlike the studies by Kokwaro & Ajowi, and Mwobobia, the current study will adopt predefined metrics of enterprise performance to evaluate performance of boda boda businesses such as: sales turnover and profitability.

2.5 Critique of Existing Literature

Studies that have been done to evaluate performance of boda boda, businesses in Kenya such as (Kokwaro & Ajowi 2013 & Mwobobia, 2014) have relied on self-

assessment of boda boda riders to determine whether their businesses are performing well or not. Mwobobia in addition used the daily earnings in addition to self-rating. The use of self-rating however is subject to biasness, and lack of understanding by the riders. This study will use self rating enterprise performance metrics to assess the performance of motorcycle boda boda enterprises. Contemporary research in motorcycle boda boda transport in Kenya by (Masanga, 2010; Nandwoli, 2014, Luchidio et al., 2013) acknowledge the speedy growth of the industry. However, the aspects behind success its success have not been clearly addressed.

2.6 Chapter Summary

The chapter has reviewed the literature comprising theories explaining the performance of rural transport microenterprises and the theoretical literature on developments and application of the theories. Further a conceptual framework is developed to explain the theoretical interaction between the hypothetical determinants of performance of motorcycle transport industry to be explored. Developments through research on the variables were further analyzed in the empirical literature. Local, regional and international studies were explored for each objective.

2.7 Research Gaps

Alternative means of transport such as *boda boda* by virtue of being wide spread and widely adopted in Kenya has the potential to spur economic growth. However the number of injuries, accidents and losses caused through road traffic accidents and litigation thereof raises questions on its significance. There is need for research to explore the success factors in this industry. Further, there is no study on assessment of factors affecting the performance of motorcycle *boda boda* enterprises in Kenya addressing education and training, compliance to government regulations, access to business support services and entrepreneurial orientation which are addressed in the current study.

RESEARCH METHODOLOGY

This section presents the methodology and procedures that were followed in conducting the study. It contained; the design for the study, study population, sampling frame, study sample and sampling techniques, data collection instruments, procedures, pilot testing and data processing and analysis procedures.

3.1 Research Design

The research design adopted was a descriptive survey that was used to collect data from motor cycle boda boda operators. A survey research allows a researcher to obtain information that describes existing phenomena by asking individuals about their perception, attitude and behavior or values (Mugenda & Mugenda, 2003). Descriptive research on the other hand allows a researcher to describe a certain phenomena without manipulating variables of the study. This study involved gathering opinions from boda boda operators in Bahati Town of Nakuru County which were used to generalize the results to other parts of the county with similar profile. According to Kothari(2004), descriptive research is used to obtain information concerning current status of the phenomena to describe "what exists" with respect to variables in a situation. Descriptive research aims to gather data without any manipulation of the research context and deals with naturally occurring phenomena, where the researcher has no control over the variables (Mugenda&Mugenda, 2003).The study considers this design appropriate since it will contribute towards minimizing bias hence maximize reliability of the data.

3.2. Target Population

The study target population was all the motorcycle *boda boda* operators in Bahati Town, Nakuru County. This area was chosen because it had a large number of *boda boda* operators. Its close proximity to Nakuru Town and its rural setting at the same time gave a picture on the determinants of performance of *boda boda* in both urban and rural setting. According to Bahati Sub county Licensing office there were 334 *boda boda* operators registered to operate in the area. The area was also a metropolitan area with people from different ethnic groups.

3.3 Sample Frame

The sampling frame describes the list of all population units from which sample was selected (Dempsey, 2003). It is a physical representation of the target population and comprises all the units that are potential members of a sample (Kothari, 2008). The sampling frame was drawn from the register of *boda boda* operators in Bahati Sub County, Nakuru County.

3.4 Sample and Sampling Technique

Mugenda & Mugenda (2003) defines a study sample as the subjects from which study information will be obtained. They further state that there is no widely recommended formula for determining the size of sample of a study. However, Gay (1992) states that in a descriptive study, 10% of the accessible population is adequate enough to provide information of interest to the researcher about the target population. The sample size was reached at using the s Nassiuma (2002). This formula was convenient for large sample sizes. The formula states:

$$n = (Nc_v^2) / (c_v^2 + (N-1) e^2)$$

Where:

n= Sample size

N= Population

C_v = Coefficient of variation (take 0.5)

e= Tolerance at desired level of confidence, take 0.05 at 95% confidence level

Upon substitution, the sample size would be as follows:

$$n = (334*0.5^2)/(0.5^2 + (334-1)*0.05^2)$$

$$n = 77.$$

Therefore a sample size for the study was 77 motorcycle *boda boda* operators from Bahati Town in Nakuru County. Systematic random sampling technique was used in selecting the operators to be included in the study where the study selected every fourth operator in the sampling frame.

3.5 Instruments of Data Collection

The study relied on primary data obtained from boda boda operators. The questionnaire was designed by the researcher and sought information on the level of education and training on motorcycle riding, the level of compliance of boda boda operators to the transport rules in the country. The study used questionnaires to collect primary data from the respondents as research tools (Kothari, 2005). Young, (2009) points out that, questionnaires are appropriate for studies since they collect information that is not directly observable as they inquire about feelings, motivations, attitudes, accomplishments as well as experiences of individuals. They further observe that questionnaires have the added advantage of being less costly and using less time as instruments of data collection. The questionnaire, which was semi-structured, was administered through drop and pick-later method to the sampled population. Further, the availability and access to business development services for boda boda operators and their entrepreneurial orientation was assessed. Finally the questionnaire assessed the performance of boda boda business in relation to the determinant factors. Questionnaire was preferred in this study because it allowed investigation with an ease of accumulation of data in a highly economical way (Graveter & Forzano, 2003). The questionnaire was designed using both open ended and closed ended questions. Respondent's opinions were quantified by rating them on a five point likert scale.

3.6 Data Collection Procedure

In collecting data, the researcher first obtained an introductory letter from the Jomo Kenyatta University of Agriculture and Technology. The researcher then informed and sought permission from Bahati Sub-County administrator and boda boda associations in the Town. The researcher then with the assistance of data collection clerks paid a field pre-visit to the site to familiarize with their mode of operation. Sampling was then done and questionnaires administered to the selected respondents on site.

3.7 Pilot Study

According to Bordens & Abbott (2008), pilot study is as a small-scale version of the study used to establish procedures, materials and parameters to be used in

the full study. According to (Cooper and Schindler, 2010), pilot test is conducted to detect weaknesses in design and instrumentation and to provide proxy data for selection of a probability sample. Pilot study is an activity that assists the researcher in determining if there are flaws, limitations, or other weaknesses within the interview design and allows him or her to make the necessary revisions prior to the implementation of the study (Bridget & Lewan, 2005).

The pilot study involved pre-testing the questionnaires on 6 respondents of sample population. It is supported by (Neumann, 2006) who recommends that a pilot test of 10% of the sample size can be used. The respondents conveniently selected since statistical conditions are not necessary in the pilot study (Cooper & Schindler, 2008). The purpose of pilot test had to be refined the questionnaires so that respondents in major study have no problem in answering the questions. The results of pilot test were not included in the actual study.

3.7.1 Validity of Instruments

This is the degree to which an instrument measures what it is supposed to measure (Kothari, 2004). A content validity test will be used to measure instrument validity. This type of validity measured the degree to which data collected using a particular instrument represented a specific domain of indicators or content of a particular concept (Mugenda and Mugenda, 1999). Validity is the degree to which the sample of the test item represent the content that is designed to measure, that is, the instrument measures the characteristics or trait that is intended to measure (Mugenda and & Mugenda, 2003). Data need not only to be reliable but also true and accurate. If a measurement is valid, it is also reliable (Joppe, 2000).

The research purpose was to ensure validity of research instruments by using simple language free from jargon that made it easy to be understood by the respondents. The researcher also intends to seek the opinion of individuals who could render intelligent judgment about their adequacy. The researcher will also engage her supervisor and other experts to ensure that the questions will test or measure what

they are supposed to measure. The research will adopt content validity which refers to the extent to which a measuring instrument provides adequate coverage of the topic under study. The content validity formula by Amin (2005) will be used in line with other previous studies (Lefort & Urzua, 2008) ; The formula is; Content Validity Index = (No. of judges declaring item valid) / (Total no. of items). It is recommended that instruments used in research should have CVI of about 0.78 or higher and three or more experts could be considered evidence of good content validity (Amin, 2005). This study will adopt a threshold of 0.78 as recommended by Amin(2005).

3.7.2 Reliability of Instruments

Reliability is the extents to which a research instrument yields findings that are consistent each time it is administered to same subjects (Mugenda and Mugenda, 2003).The measurement of reliability provides consistency in the measurement variables(Kumar,2000)). Internal consistency reliability is the most commonly used psychometric measure assessing survey instruments and scales (Zhang, 2000). Cronbach alpha is the basic formula for determining the reliability based on internal consistency (Kim & Cha, 2002). Reliability is increased by including many similar items on a measure, by testing a diverse sample of individuals and by using uniform testing procedures. In order to test the reliability of the instruments, internal consistency techniques will be applied using Cronbach’s Alpha. The alpha value ranges between 0 and 1 with reliability increasing with the increase in value. Coefficient of 0.6-0.7 is a commonly recommended that indicates acceptable reliability and 0.8 or higher indicate good reliability (Mugenda, 2008).This study will adopt a reliability threshold of 0.7 as recommended by Gupta(2010).

3.8 Data Analysis

After all data was collected, the study conducted data coding and entered in the computer for analysis using the Statistical Package for Social Sciences (SPSS) version 21. Data was then analyzed using descriptive statistics such as frequency counts, percentages, mean mode and standard deviation. Kothari (2004)

define data analysis as a mechanism for reducing and organizing data to produce findings that require interpretation by the researcher. The data collected was quantitative and qualitative. Once the questionnaires were received, coded and edited for completeness and consistency. Data analysis entailed editing, coding and tabulation of data collected into manageable summaries (Kumar, 2000).

To ensure easy analysis, the questionnaires were coded according to each variable of the study to ensure accuracy during analysis. Quantitative data was analyzed by employing descriptive statistics and inferential analysis using statistical package for social science (SPSS) version 21 and excel. This technique gave simple summaries about the sample data and present quantitative descriptions in a manageable form, (Orodho,2003). Together with simple graphics analysis, descriptive statistics formed the basis of virtually every quantitative analysis to data, (Kothari, 2005).

The findings were presented using tables, charts and graphs for further analysis and to facilitate comparison. This generated quantitative reports through tabulations, percentages, and measure of central tendency. Descriptive statistics such as measures of central tendency and dispersion along with percentages were used to organize and summarize numerical data whose results were presented in tables, pie charts, column and bar graphs for easy interpretation of the findings (Zhang, 2000).

Multiple regression analysis and t-test statistics were then used to determine the relationship between predictor variables (determinant factors) and the dependent variables (performance of motorcycle *boda boda* businesses). The regression data analysis was based on the regression model below:

$$Y = \alpha_0 + \beta_1 X_i + \beta_{ii} X_{ii} + \beta_{iii} X_{iii} + \beta_{iv} X_{iv} + \epsilon_0$$

Where: Y = Performance of *Boda Boda* business

$\beta_i, \beta_{ii}, \beta_{iii}, \beta_{iv}$ = Coefficients of the independent variables

X_i = Training

X_{ii}	=	Compliance with government regulations
X_{iii}	=	Enterprise transport support services
X_{iv}	=	Entrepreneurial Orientation
α_0	=	Constant
ϵ_0	=	Error Term

the data collection procedures, where the researcher pre-notified the potential participants and applied the drop and pick method where the questionnaires were picked at a later date to allow the respondents ample time to fill the questionnaires. The response rate was therefore adequate for the study to make relevant conclusions basing on the responses.

4.3 Reliability and Validity Test Results

A pilot study was carried out to determine reliability and validity of the questionnaires. The pilot study involved the sample respondents. Reliability analysis was subsequently done using Cronbach's Alpha which measured the internal consistency. Gliem & Gliem (2003) established the Alpha value threshold at 0.7, thus forming the study's benchmark. Cronbach Alpha was established for every objective which formed a scale. Table 4.2 shows knowledge application had the highest reliability ($\alpha= 0.8950$) and this also illustrates that all the four variables were reliable as their reliability values exceeded the prescribed threshold of 0.7.

The content validity formula by Amin (2005) was used in this study. The formula is; Content Validity Index = (No. of judges declaring item valid) / (Total no. of items). It is recommended that instruments used in research should have CVI of about 0.78 or higher and three or more experts could be considered evidence of good content validity (Amin, 2005). From the results in Table 4.2, it illustrates that all the four variables were valid as their CVI values exceeded the prescribed threshold of 0.78 as emphasized by Amin (2005).

DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This chapter discusses the interpretation and presentation of the study findings obtained from the field. The chapter presents the background information of the respondents, findings of the analysis based on the objectives of the study. The primary data was gathered from the questionnaire as the research instrument. For this purpose, the various statistical analysis tools that include Cronbach's alpha, correlation analysis and multiple regression analysis have been employed to investigate the determinants influencing performance of alternative in Kenya: a case of Bahati town, Nakuru County.

4.2 Response Rate

Table 4.1 Response Rate

Questionnaires Administered	Questionnaires		Percentage
	filled & Returned		
Respondents	77	72	93.51

The study targeted a sample size of 77 respondents from which 72 filled in and returned the questionnaires making a response rate of 93.51% and 6.49% dropped out of the study in the process of data collection for various reasons as shown in Table 4.1. This response rate was satisfactory to make conclusions for the study. Mugenda & Mugenda (2003) states that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. Based on the findings of this study, the response rate was excellent. This high response rate can be attributed to

Table 4.2: Reliability & Validity Test results

Scale	Cronbach's Alpha	CVI	Remarks
Training	0.775	0.889	Accepted
Non-compliance government regulations	0.868	0.789	Accepted
Business transport support services	0.965	0.868	Accepted
Entrepreneurial orientation	0.975	0.848	Accepted
Performance of alternative transport	0.875	0.833	Accepted

4.4 Demographic Information

Demographic information provides data regarding research participants and is necessary for the determination of whether the individuals in a particular study are a representative sample of the target population and testing appropriateness of the respondent in answering the questions for generalization purposes. The demographic information comprised of the gender, age, level of education and work experience.

4.4.1 Gender of Respondents

Table 4. 1: Gender

	Frequency	Percent
Male	70	97.2
Female	2	2.8
Total	72	100.0

The findings on gender in Table 4.1 shows that the motorcycle transport business was dominated by the male gender constituting 97.2% of the operators while female constituted only 2.8%. this is an indication that both genders were not well represented in this study and thus the finding of the study did suffer from gender bias all through the study. Shaw & Carter (2007) found that in business gender balance motivate employees and entrepreneurs to perform better towards busoness goal as women and men compete favorably to deliver on their assignments.

4.4.2 Age of Respondents

Table 4.2: Age distribution

	Frequency	Percent
18-25 years	7	9.7
26 - 35 years	45	62.5
36 - 45 years	20	27.8
Total	72	100.0

The findings on age of boda boda operators on Table 4.2 shows that majority of the riders (72.2%) were youth aged between 18 – 35 years, the rest (27.8%) were in the age cohort immediately above the youthful age of 36 – 46 years. None of the riders was aged above 45 years. This indicates that true to governments’ intention, motorcycle transport has

been able to provide employment to youth in Bahati Town and in Kenya in general. Also, this implies that respondents were well distributed in terms of their age and that majority of the respondents were at their maturity stage and therefore able to handle their business responsibly.

4.4.3 Age of Respondents

Table 4.3: Marital Status

			Marital Status		
			Single	Married	Total
Age	18-25 years	Count	7	0	7
		% within Age	100.0%	0.0%	100.0%
	26 - 35 years	Count	27	18	45
		% within Age	60.0%	40.0%	100.0%
	36 - 45 years	Count	0	20	20
		% within Age	0.0%	100.0%	100.0%
Total		Count	34	38	72
		% within Age	47.2%	52.8%	100.0%

The findings on marital status shows that all the boda boda operators (100.0%) between the age cohort of 18-25 years were single while 60.0% aged between 26 -35 years were single while all (100.0%) of those between 36 – 45 years were married. This implies that the beneficiaries boda boda business which were introduced to help youth in self employment also stretch beyond the individuals; as the youth age, they build families that also depend on the earnings from the business. Therefore the motorcycle transport business model should be able to promote sustainable employment.

4.4.4 Number of Dependants

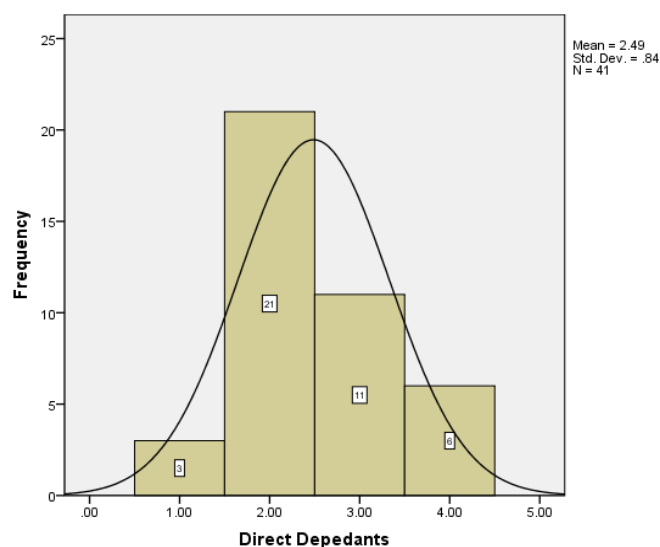


Figure 4.1: Number of Dependants

The findings revealed that 43.1% of the boda boda operators were youth with no dependants. On the other hand, 56.9% had dependants; majority (51.2%) of them had 2 dependants or 3 dependants (26.8%). On average one motorcycle was sustaining 2.49 dependants which can translate to 4 dependants inclusive of the owner. This implies that one motorcycle was responsible for ensuring livelihood for a family of four.

4.4.5 Work Experience

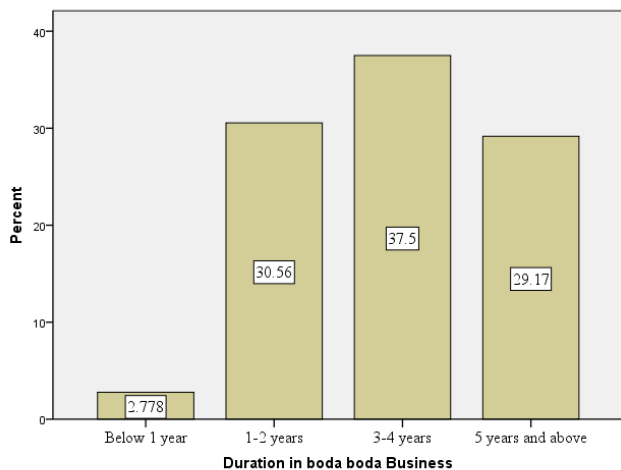


Figure 4. 2: Duration of operating boda boda business

The duration in which boda boda operators have been running the business was also an important parameter. Figure 4.2 shows the study findings which revealed that majority of the boda boda operators (66.67%) had been in the business for a period above 3(three) years while a small percentage (2.778%) had operated the businesses for a period less than a year. This implies that majority of the respondents had experience in the industry therefore were able to provide valid information on the industry operations. The findings of this study are in tandem with literature review by Krueger (2003) who states that a duration and experience of entrepreneur helps him or her to have better knowledge and skills which contribute to the success of their new venture (business).

4.4.6 Ownership of the Motorcycles

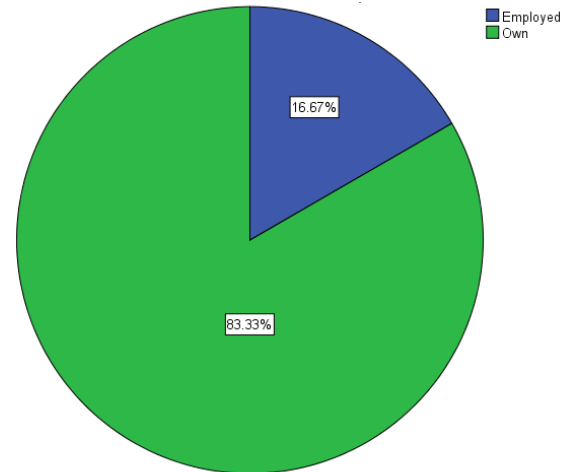


Figure 4.3: Ownership of boda boda

Ownership of the motorcycles was also determined and presented on Figure 4.3 which revealed that majority of boda boda operators who participated in this study (83.33%) were operating using their own motorcycles while 16.67% were employed. This implies that the cost of start-up of boda boda business was affordable to many youth hence they were able to operate using own equipments. In this model, the operator would benefit maximum from the returns of the business. In addition, this also implies that being owner managers, boda boda operators require having skills to manage and grow their enterprises.

4.4.7 Source of Funding

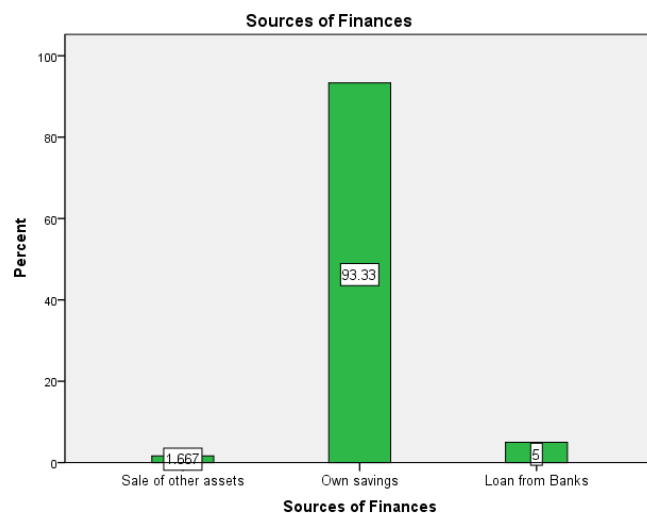


Figure 4.4: Sources of finances for boda boda business

The findings in Figure 4.4 indicate that majority (93.3%) of boda boda operators started the business through their own savings while a few (5.0%) were advanced loans from banks. This shows that either *boda boda* operators were not aware of avenues for obtaining venture capital or finance institutions were skeptical in advancing risk capital to youth.

4.5 Training on Performance of Motorcycle Transport Business

The first objective of the study was to establish the effect of education and training on the performance of motorcycle transport Business in Bahati Town. Therefore the education profile, the training on operation of *boda boda* and business skills were determined and compared with the performance of their businesses. The education profile of boda boda operators is presented on Figure 4.5.

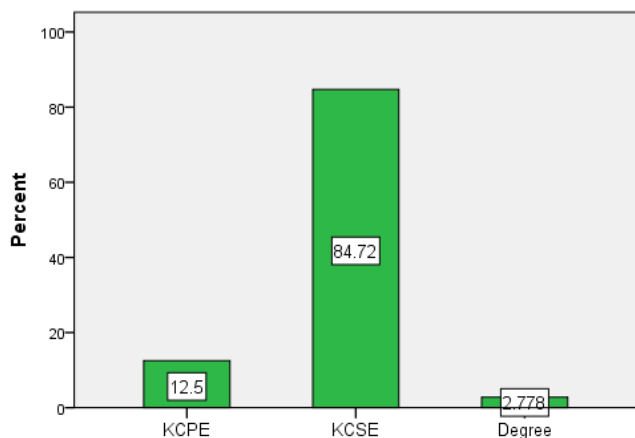


Figure 4.5: Highest Education Level

The findings on education level revealed that majority of the boda boda operators (84.72%) had Kenya Certificate of Secondary Education (KCSE) while 12.50% had Kenya Certificate of Primary Education (KCPE). None cited to have certificate or diploma; however 2.78% had university degrees. This shows that boda boda business was majorly a preserve of primary and secondary school graduates although jobless degree holders have found it as an employment option. Katz et.al, (2004) associated the education level of entrepreneurs with business success with findings that, those with higher levels of education are more successful because higher education provides them knowledge and modern managerial skills, making them more conscious of the reality of the business world and thus in a position to

use their learning capabilities to enhance service delivery. The findings therefore indicate that the respondents have the capacity, skills and management acumen to steer service delivery. These skills may help them handle and interpret their respective services and the emerging issues in knowledge management practices and service delivery to the best level possible.

Operators identified their training on operations of motorcycles as shown on Table 4.4.

Table 4.4: Source of training on operation of motorcycles

	Frequency	Percent
Trained Myself	10	13.9
Trained by friends	52	72.2
Driving Schools	10	13.9
Total	72	100.0

The findings on Table 4.4 revealed that 86.1% of boda boda operators had no formal training on the operation of motorcycles including training on the Highway Code and traffic rules. Majority 72.2% had received their training from friends while 13.9% trained themselves without the help of others. Other than technical training, the soft skills on management of motorcycle transport business were also determined. Figure 4.6 presents the findings.

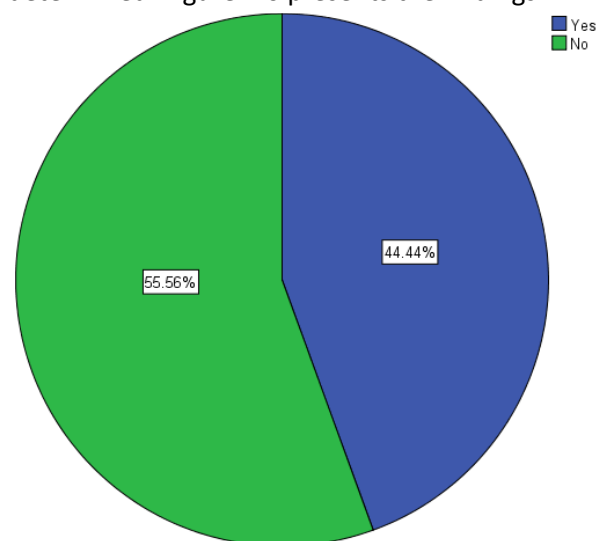


Figure 4.6: Training on Management of Boda Boda Business

Majority 55.56% indicated that they had not received any training on management of boda boda as a business while 44.4% had received training. Operators were then asked to rate themselves on their skills related to operation of boda boda business. Results of the self rating are presented on Table 4.5.

Table 4.5: Rating on boda boda Business Skills

Training	N	Min	Max	Mean	Std.
					Deviation
Motor cycle maintenance	72	3.00	4.00	3.31	0.46
Understanding Traffic rules	72	3.00	5.00	3.83	0.40
Road transport Safety	72	3.00	4.00	3.76	0.43
Management of finances	72	3.00	4.00	3.81	0.40
Handling Customers	72	1.00	5.00	4.06	0.55

Boda boda operators rated themselves above average on the various skills essential in operation of motorcycle transport business. Their highest rating was on customer handling at (mean = 4.06, Std Dev = 0.55) followed by their understanding of traffic rules rated at (mean = 3.83, Std Dev = 0.40). Operators also considered themselves average on finance management skills (mean = 3.81, Std Dev = 0.40) and understanding of road transport safety (mean = 3.76, Std Dev = 0.43). However, they considered themselves lower in motorcycle maintenance skills rated at (mean = 3.31, Std Dev = 0.46). Contrary to the studies by Yakubu (2010) and Arosanyin (2011), studies by World Bank (2005) and International Labour Organization (ILO), (2003) on the factors affecting the performance of women owned enterprises adversely cited that lack of entrepreneurial, managerial and marketing skills as key determinants of performance of women owned enterprises. The study findings corroborates with literature review by Yakubu and Arosanyin who indicated that motorcycle transport as business enterprises therefore performance will be evaluated from a range of performance indicators on terms of training. They also states that training is an important factor that influence motorcycle transport positively.

4.6 Government regulations Compliance on Performance of Motorcycle Transport Business

The study's second objective sought to determine whether the level of compliance to road transport rules and regulations affected performance of boda boda transport businesses in Bahati Town. This was achieved by determining the level of compliance with traffic rules in relation to performance. First, boda boda operators were asked to indicate whether they have ever been arrested due to flouting traffic rules. The findings are shown on Figure 4.7.

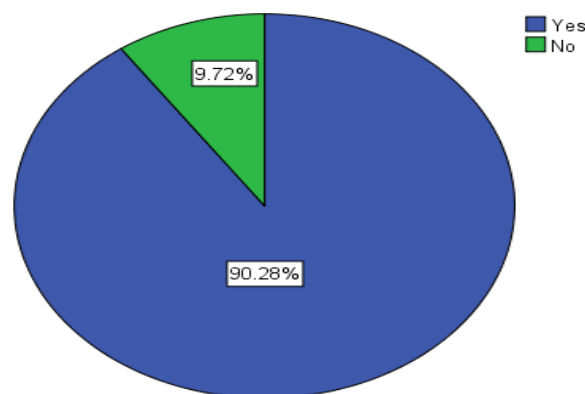


Figure 4.7: Arrested for Flouting Traffic Rules

A vast majority of the boda boda operators (90.28%) indicated that they have been arrested before for non compliance with traffic rules while 9.72% have not. This implies low level of compliance with traffic rules. Further assessment of the traffic offenses for which boda boda riders were convicted using a multiple response analysis revealed findings shown on the findings in Table 4.6.

Table 4.6: Common Traffic Offenses

		Responses		
		N	Percent	Percent of Cases
Arrested	Lack of driving license	7	1.7%	10.0%
	Lack of reflector jacket	69	16.6%	98.6%
	Lack of helmet	27	6.5%	38.6%
	Helmet for customer	57	13.7%	81.4%
	Carrying more than one passenger	42	10.1%	60.0%
	Over speeding	65	15.6%	92.9%
	Failure to observe road signs	68	16.3%	97.1%
	Riding in un serviced motorcycle	69	16.6%	98.6%
	Lack of Insurance	12	2.9%	17.1%
Total		416	100.0	594.3%

The most common offenses for which boda boda operators were convicted for included: the lack of reflector jackets (98.6%), riding unserviced motorcycle (98.6%), failure to observe road signs (97.1%), over speeding (92.9%), lack of helmet for customer (81.4%) and carrying more than one passenger (60.0%). The least common offenses included lack of riders helmet (38.6%), lack of driving license (10.0%) and lack of insurance (17.1%). These findings shows that the most common offenses committed by boda boda riders had the potential for causing severe damages to the motorcycle, the rider or the passage which in business would amount to high levels of loss. Losses affect the performance of the businesses. The study findings are in tandem with the findings of Nandwoli (2014) who gave observed that a significant number of the riders were not well prepared to comply with the traffic rules and regulations. As a result there was friction between the riders and the law enforcers. This resulted in a standoff where the riders boycott operations accusing the police of harassment. The low level of compliance and the unwilling riders to comply with the traffic rules therefore disrupted business and increased the cost of running the business.

Opinions of boda boda operators on how compliance with the traffic rules and regulations affect their business are presented on Table 4.7.

Table 4.7: Effects of Compliance on Performance of Boda Boda Business

	N	Min	Max	Mean	Std. Deviation
Failure to comply with rules and regulations leads to unnecessary costs which affect profits in the business	72	3.00	5.00	3.96	0.35
Time lost in handling non-compliance are high translating to loss of earnings	72	3.00	4.00	3.82	0.39
Compliance with safety regulations enhances safety and performance of the operators	70	3.00	5.00	3.56	0.58
Overloading the motorcycle increase the cost of maintenance	72	2.00	4.00	2.88	0.65
Majority of accidents caused by boda boda operators are as a result of failure to comply with government rules	72	1.00	5.00	3.88	0.65

Findings of Table 4.7 indicate that, majority of boda boda operators agreed that failure to comply with rules and regulations led to unnecessary costs which affected profits in their business (mean = 3.96, Std Dev = 0.35). Majority of accidents caused by boda boda operators were as a result of failure to comply with traffic rules and regulations (mean = 3.88, Std Dev = 0.65) which means that they acknowledge the negative impact of compliance to their businesses. Boda boda operators also agreed that non compliance led to loss of time in handling the emerging issues (mean = 3.82, Std Dev = 0.39) and that compliance with safety regulations enhanced safety and performance of the operators (mean = 3.56, Std Dev = 0.58). However, they did not seem to agree that overloading the motorcycle increased the cost of maintenance (mean = 2.88, Std Dev = 0.65). The study findings are on agreement with the new traffic rules in Kenya implemented by the NTSA require that motorcycle riders should have the protective gear and the motorcycles should be licensed. The protective gear consists of two helmets, one for the rider and the

other for the passenger, the rider should always wear a reflective jacket for easier visibility and identification by other road users. The riders should have valid driving licenses while the motorcycles should have insurance licenses so as to insure both the rider and the passenger against any eventuality.

4.7 Enterprise Support Services on Performance of Motorcycle Transport Business

The third objective of the study sought to determine how enterprise support services affected performance of motorcycle transport Business in Bahati Town. First the study sought to know whether boda boda operators had access to technical, advisory or financial support for their business. The findings on whether boda boda operators had access to business development services are shown on Figure 4.7.

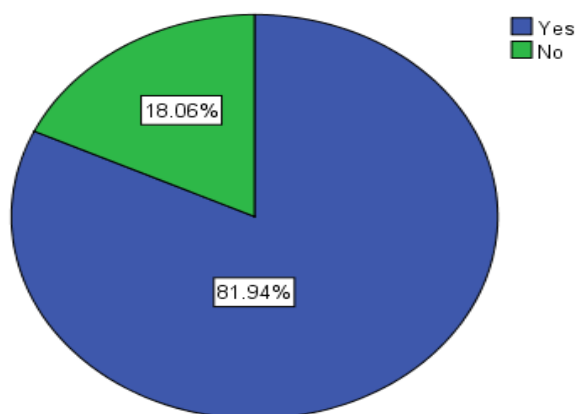


Figure 4.8: Access to Business Development Services

A vast majority of the boda boda operators (81.94%) have had access to business support services as opposed to 18.06% who have not. The support services offered were as shown on Figure 4.9.

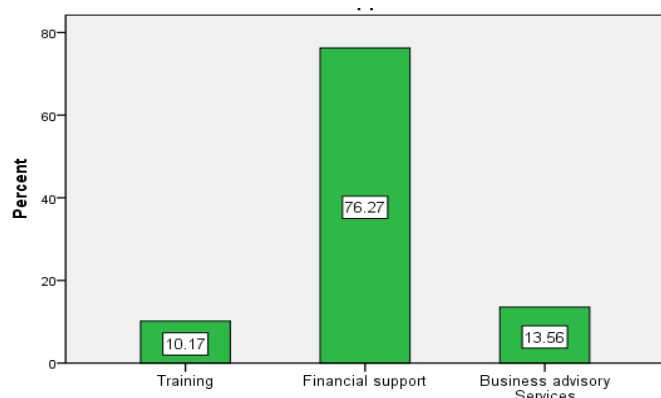


Figure 4.9: Business support

Findings in Figure 4.9 show that the most common form of support for boda boda operators was financial support accorded to (76.27%). Only 13.56% had accessed business advisory services while 10.17% had received support in form of training. The profile of institutions offering support services were shown on Table 4.9

Table 4.8: Enterprise support service providers for boda boda operators

		Responses		Percent of Cases
		N	Percent	
Business support	NGO's	60	13.5%	87.0%
Service providers	County Government	68	15.2%	98.6%
	National Transport and Safety Authority	69	15.5%	100.0%
	Uwezo Fund	65	14.6%	94.2%
	Youth enterprise fund	60	13.5%	87.0%
	Driving School	69	15.5%	100.0%
	Boda Boda association	55	12.3%	79.7%
Total		446	100.0%	646.4%

The multiple response analysis on Table 4.8 revealed that the National Transport and Safety Authority (100.0%) and Driving Schools (100.0%) were the most active providers for support services needed by boda boda operators. However looking at the profile of the services provided, NTSA mainly was involved in licensing and ensuring safety of riders while driving schools were involved in providing technical skills on operation of motorcycles and the traffic rules. The county government (98.6%), uwezo fund (94.2%), the youth enterprise fund, NGO's and the boda boda associations also offered some form of support to boda boda operators. Enterprise support services are important because they can assist entrepreneurs to run their business more effectively and, if appropriately applied, can act as an enhancer of access to finance and as an alternative form of "collateral" in circumstances where tangible collateral may be an impediment to meeting traditional security requirements.

An assessment on the business support services revealed the findings on Table 4. 9

Table 4.9: Business Support Services

	N	Min	Max	Mean	Standard Deviation
Business advisory and support services are available all the time for those who wish to be assisted	72	2.00	4.00	3.19	0.68
The services are based on predetermined operators needs assessment	72	2.00	5.00	3.06	0.71
The fees charged for business support services are affordable to boda boda operators	72	2.00	5.00	3.46	0.69
The business advisory services are offered at time that is reasonable for boda boda operators	72	2.00	5.00	2.99	0.74
The advisory services have enabled boda boda operators to better manage and grow their businesses	72	2.00	5.00	3.54	0.71

Findings on assessment of the business development services on Table 4.9 revealed that the advisory services have enabled boda boda operators to better manage and grow their businesses (mean = 3.54, Std Dev = 0.71). This implies that business support services play a significant role in promoting development and performance of boda boda businesses. Operators also cited that the fees charged for business support services were affordable to boda boda operators (mean = 3.46, Std Dev = 0.69). As seen from findings in Table 4.8, the main promoter of the boda boda business was the NTSA, a government entity whose majority of services were free or at affordable fees. However, the skills and training offered are skewed towards road safety rather than business management skills.

On accessibility of the services, operators cited as moderate the availability of business advisory and support services. They cited that the services were

available all the time for those who wish to be assisted (mean = 3.19, Std Dev = 0.68). As to whether the services were based on proper needs assessment, operators rated average the match between the development services and their needs at (mean = 3.06, Std Dev = 0.71). Similarly, the services were rated moderate on the timing reasonable for boda boda operators (mean = 2.99, Std Dev = 0.74). The above findings imply that boda boda operators had access to a myriad of business development services however; the most utilized were the financial support services. The findings of the study are in agreement with literature review by Edgcomb & Girardo (2012) who observed that enterprise support services has been widely adopted in developing small scale businesses which are vital in economic growth. In a survey conducted by to describe the characteristics of business development services and how their work has changed over the two years 2008 – 2010 the findings revealed that, the number of institutions offering enterprise support service increased significantly between 2008 and 2010.

4.6 Entrepreneurial Orientation and Performance of Boda Boda Business

The fourth objective of the study sought to understand whether entrepreneurial orientation of boda boda operators affected the performance of their motorcycle transport Business in Bahati Town. This was achieved by first determining their entrepreneurial orientation then comparing with the performance of their businesses. Entrepreneurial orientation was measured based on five attributes: innovativeness, proactiveness, risk-taking, competitive aggressiveness and autonomy. The entrepreneurial orientation was tabulated for owners and employed boda boda operators. The findings on scores are presented on Table 4.10.

Table 4.10: Entrepreneurial Orientation of boda boda operators

	Ownership	N	Mean	Std. Dev	Std. Error
I like the boda boda operation job generally	Employed	12	3.33	0.78	0.22
I do everything to make my boda boda different from others operating in the same environment (innovativeness)	Own	60	4.28	0.45	0.06
I do not mind exploiting new routes with better returns (risk taking)	Employed	12	3.83	0.72	0.21
I will do everything to outperform all other competitors (competitive aggression)	Own	60	4.20	0.48	0.06
The decision to get into boda boda business was my own initiative which I am willing to grow (Autonomy)	Employed	12	3.50	0.67	0.19
I am always ready to pursue new options that improve my boda boda business (proactiveness)	Own	60	4.02	0.60	0.077
	Employed	12	3.92	0.51	0.15
	Own	60	4.21	0.71	0.09
	Employed	12	3.08	0.90	0.26
	Own	60	4.15	0.55	0.07
	Employed	12	3.92	0.51	0.15
	Own	60	4.12	0.49	0.06

Entrepreneurial orientation varied between boda boda operators running their own motorcycles “owner managers” and those employed by others on the same job (employees). Owner managers liked the job more (Mean = 4.28, Std Dev = 0.45) compared to the employed operators (Mean = 3.33, Std Dev = 0.78). Similarly, boda boda owner managers were more innovative (Mean = 4.20, Std Dev = 0.48) in the

job compared to employee operators rated (Mean = 3.83, Std Dev = 0.72). On risk taking propensity, owners managers also scored higher than employee operators at (Mean = 4.02, Std Dev = 0.60) against (Mean = 3.50, Std Dev = 0.67).

Owner managers also scored higher on competitive aggression at (Mean = 4.21, Std Dev = 0.71) compared to the employee operators who scored (Mean = 3.92, Std Dev = 0.51). Similarly owner managers scored high in autonomy in decision making (Mean = 4.15, Std Dev = 0.55), as opposed to the employee operators who rated themselves at (Mean = 3.08, Std Dev = 0.90). Finally on proactiveness, owner managers still scored high at (Mean = 4.12, Std Dev = 0.49) as opposed to the employee operators who scored (Mean = 3.92, Std Dev = 0.51). The study results are in agreement with the findings of Masanga (2010) who indicated that attitude was an important determinant of the entrepreneurial performance of the ‘boda boda’ entrepreneurs. Those with a positive attitude performed significantly better than those with negative attitude towards the enterprise thus entrepreneurial orientation of an individual in relation to the performance of the boda boda enterprises is an important factor.

A t-test to determine the equality of means between the entrepreneurial orientation of employed boda boda operators and owner managers revealed the findings in Table 4.11.

Table 4.11: t-test for Equality of Means

		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference
					Lower	Upper	
Entrepreneurial orientation	Equal variances assumed	5.364	7	.000	0.56	0.10	0.77 0.355

The t-test results on Table 4.11 shows that there exists a significant difference in entrepreneurial orientation between boda boda operators running

their own motorcycles and those employed by others to run their motorcycles ($t = 5.364, p < 0.01$).

4.7 Performance of Boda Boda Business

Performance of the boda boda business was assessed based on the daily sales, gross profits per day, and growth of the business. The distribution on daily sales is presented on Table 4.12.

Table 4.12: Daily Sales

	Frequency	Percent
Ksh 301 - 400	1	1.4
Ksh 401 - 500	1	1.4
Above Ksh 500	70	97.2
Total	72	100.0

Majority of the boda boda operators indicated that they made daily earnings above Ksh 500 per day. Only 1(one) made average daily income of Ksh 401 – Ksh 500 and 1(one) made income of Ksh 301 – 400. The results on profitability are shown on Table 4.13.

Table 4. 13: Daily Profits of boda boda business

	Frequency	Percent
Ksh 201 - 300	2	2.8
Ksh 301 - 400	1	1.4
Ksh 401 - 500	13	18.1
Above Ksh 500	56	77.8
Total	72	100.0

On average, 77.8% of the boda boda operators made profits of above Ksh 500 per day, 18.1% recorded between Ksh 401 – 500 while 4.2% registered profits below Ksh 400.

Table 4.14: Days worked in a week

Days	Frequency	Percent
5.00	1	1.4
6.00	61	84.7
7.00	10	13.9
Total	72	100.0

On average majority of the boda boda operators (84.7%) worked for 6 days in a week, 13.9% worked for 7 days while 1.4% worked for five days. This implies that majority worked for 6 days with daily profits of above Ksh 500 therefore they earned profits of above Ksh 13,000 per month.

Table 4.15: Impact of boda boda business on livelihood of operators

	N	Min	Max	Mea n	Std. Deviation
The business generates enough money to sustain me and my family	72	2.00	5.00	4.14	0.61
Savings from the business have enabled me to grow the business	72	3.00	5.00	4.13	0.53
The proceeds from this business have enabled me to develop myself	72	3.00	5.00	4.11	0.52

Proceeds from the boda boda business have had a significant impact on the lives of the boda boda operators. First, majority indicated that the business generated enough funds to enable them sustain their families comfortably (Mean = 4.14, Std. Dev = 0.61). Income from boda boda business has also enabled the operators to develop their businesses (Mean = 4.13, Std. Dev = 0.53) and also acquire household assets for personal development (Mean = 4.11, Std. Dev = 0.52).

4.8 Regression Analysis

According to Green & Salkind (2003) regression analysis is a statistics process of estimating the

relationship between variables. Regression analysis helps in generating equation that describes the statistics relationship between one or more predictor variables and the response variable. In determining the relationship between determinants of performance of boda boda businesses, multiple regression analysis was used. The regression model used was:

$$Y = \alpha_0 + \beta_i X_i + \beta_{ii} X_{ii} + \beta_{iii} X_{iii} + \beta_{iv} X_{iv} + \epsilon_0$$

Where:
 Y = Performance of Boda Boda Businesses.

- $\beta_i, \beta_{ii}, \beta_{iii}, \beta_{iv}$ = Coefficients of the independent variables
- X_i = Education and Training
- X_{ii} = Compliance with government regulations
- X_{iii} = Access to business support services
- X_{iv} = Entrepreneurial Orientation
- α_0 = Constant
- ϵ_0 = Error Term

Results of the regression analysis are presented on Tables 4.16 to 4.18.

Table 4.16: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.576 ^a	0.332	0.288	0.27947

a. Predictors: (Constant), Entrepreneurial orientation, Government regulations compliance, Enterprise transport support, Training

The coefficient of determination (R^2) explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (performance of alternative transport) that is explained by all four independent variables (Entrepreneurial orientation, Non-compliance, Enterprise transport support, Training). The regression model summary on Table 4.16 shows an $R^2 = 0.332$ which implied that education and training, enterprise business support services, government regulations compliance and entrepreneurial orientation of *boda boda* operators

accounted for 33.2% of the variations in *boda boda* business performance.

Table 4.17: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.366	4	0.591	8.324	.004 ^a
	Residual	4.764	67	0.071		
	Total	7.130	71			

a. Predictors: (Constant), Entrepreneurial orientation, government regulations compliance, enterprise transport support services, Training

b. Dependent Variable: Performance of alternative transport

c. Critical value = 4.038

The significance value is 0.004 which is less than 0.05 thus the model is statistically significant in explaining the relationship between variables and predicting how entrepreneurial orientation, government regulations compliance, enterprise transport support services, training influence the Performance of alternative transport in Kenya. The F critical at 5% level of significance is 4.038. Since F calculated (8.324) is greater than the F critical (value = 4.038), this shows that the overall model was significant in explaining the relationship. The study ran the procedure of obtaining the regression coefficients and the results were as shown on the Table 4.18.

Table 4.18: Regression Coefficients

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.
		B	Beta		
1	(Constant)	1.486		2.129	.037
	Training	.471	.321	2.320	.000
	Compliance	.098	.041	.339	.736
	Business support	.044	.068	.563	.576
	Entrepreneurial orientation	.419	.466	4.380	.024

a. Dependent Variable: Performance of alternative transport

The beta coefficients on Table 4.18 shows that education and skills of *boda boda* operators ($\beta = 0.471$, $p < 0.05$) coupled with their entrepreneurial orientation ($\beta = 0.419$, $p < 0.05$) played a very significant role in ensuring good performance of their

businesses. The business support services provided did not have a significant effect on boda boda business performance ($\beta = 0.044$, $p > 0.05$). Operators also recorded a substantial level of government regulations compliance requirements which also had a positive though not significant effect on the business performance ($\beta = -0.098$, $p > 0.05$). These findings imply that the two most significant determinants of performance of boda boda businesses were the education and skills of the operators and the entrepreneurial orientation. Government regulations compliance and business support services did not have a significant effect on performance of boda boda businesses. Thus the relationship can be expressed using the model:

$$Y = 1.486 + 0.471 X_i + 0.098 X_{ii} + 0.044 X_{iii} + 0.419 X_{iv}$$

$$Y = 1.486 + 0.471 \text{ Training} + 0.098 \text{ Government regulations compliance} + 0.044 \text{ Enterprise transport support services} + 0.419 \text{ Entrepreneurial orientation of the operator.}$$

According to the regression equation established, taking all factors into account (entrepreneurial orientation, government regulations compliance, enterprise transport support and training) constant at zero was 1.486. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in training will lead to a 0.471 increase in performance of alternative transport; a unit increase in government regulations compliance will lead to a 0.098 increase in performance of alternative transport, a unit increase in enterprise transport support services will lead to a 0.044 increase in performance of alternative transport and a unit increase in entrepreneurial orientation will lead to a 0.419 increase in performance of alternative transport. This infers that training contribute most to the performance of alternative transport followed by entrepreneurial orientation.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the research findings, conclusions and recommendations drawn from the findings based on the research objectives and questions.

5.2 Summary of Findings

The general information of boda boda operators revealed that majority were youth aged between 18 – 35 years, while a few were in the age cohort immediately above the youthful age of 36 – 46 years. On average one motorcycle sustained the livelihoods of 2.49 dependants which approximately translated to 4 dependants inclusive of the owner. Majority of boda boda operators in Bahati Town were operating using their own motorcycles acquired mainly through personal savings.

5.2.1 Training

On the education and training of boda boda operators, the findings revealed that majority had Kenya Certificate of Secondary Education while a few had primary education qualifications. Degree holders were also present among the boda boda operators. A vast majority of boda boda operators had no formal training on the operation of motorcycles including training on the Highway Code and traffic rules. Majority of those with skills were trained by friends or trained themselves without the help of others.

Business management skills were also low among the operators since majority indicated that they had not received any training on management of boda boda as a business. However based on their hands on experience, Boda boda operators rated themselves above average on the various skills essential in operation of motorcycle transport business. Their highest rating was on customer handling followed by their understanding of traffic rules rated, finance management skills, understanding of road transport safety and lowest in motorcycle maintenance skills. The education and skills of boda boda operators were found to have a significant effect on performance of boda boda businesses in Bahati Town.

5.2.2 Government Regulations compliance

The findings on compliance with government regulations in motorcycle transport business revealed that a vast majority of the boda boda operators in Bahati Town did not comply with the government regulations in the industry. Hence majority had been arrested before for non compliance with traffic rules. The most common offenses for which boda boda

operators were convicted included: the lack of reflector jackets riding un-serviced motorcycle, failure to observe road signs, over speeding, lack of helmet for customer and carrying more than one passenger. The least common offenses included lack of rider's helmet, driving license and insurance. Majority of accidents caused by boda boda operators were as a result of failure to comply with traffic rules and regulations. Further, failure to comply with rules and regulations led to unnecessary costs and time wastage which affected profits in their business. Overall non compliance had a negative though insignificant effect on performance of boda boda businesses.

5.2.3 Enterprise Transport Support Services

On the business support services offered to boda boda operators, the study revealed that, a vast majority of the boda boda operators had access to at least one form of business support service. The most common form of support for boda boda operators was financial support while a few had accessed business advisory services and training services. National Transport and Safety Authority was the most proactive in enhancing support for boda boda operators followed by driving schools, the county government, uwezo fund, the youth enterprise fund, NGO's and the boda boda associations. The services were rated average in addressing the needs of boda boda operators, promoting development and performance, cost and timeliness. The business support services offered however did not have a significant effect on performance of boda boda businesses.

5.2.4 Entrepreneurial Orientation

Findings on entrepreneurial orientation revealed that EO varied significantly between boda boda operators running their own motorcycles "owner managers" and those employed by others on the same job. Owner managers were motivated in performing the jobs, were more innovative, had high risk taking propensity, higher competitive aggression, autonomy in decision making and proactiveness compared to employed operators. Overall entrepreneurial orientation was found to have a very significant effect on performance of boda boda businesses in Bahati Town.

5.3 Conclusions

Based on the findings presented, the study concluded that majority of boda boda operators had low education qualifications, non formal training on operation of motorcycles and no formal business management training. They relied on hands-on experience in running the businesses yet education and training had the greatest effect on performance of boda boda businesses.

There was a high level of non compliance with government regulations on motorcycle transport business among operators in Bahati Town. Offenses committed by boda boda riders resulted to capital losses, liabilities and losses in time which in turn negatively affected boda boda as a business venture.

The business support services offered to boda boda business operators were scanty and uncoordinated therefore did not address the explicit needs of the sector. As a result there was no tangible effect of the support services on performance of the businesses.

Owners of motorcycles transport businesses were found to have higher entrepreneurial orientation compared to employed operators. Further, entrepreneurial orientation had a very significant effect on performance of boda boda business in Bahati Town.

5.4 Recommendations

From the above discussions, the study recommends that the county government of Nakuru should launch an intensive training for boda boda operators whose package comprises of both technical skills, safety training and business management skills as a strategy for enhancing boda boda as an employment industry for youth in the County.

The government and other stakeholders in the transport sector should initiate a program for boda boda operators to sensitize them on the need for compliance with regulations as a way of safeguarding and enhancing performance for their businesses.

There is need to have a package of business support services tailor made for the boda boda transport business owing to its growth and its role in the economy. There is need for training and support services for boda boda operators to not only focus on the technical and business management skills of

operators but also on developing entrepreneurial orientation of the operators as a strategy to enhance performance in the sector.

5.5 Recommendations for Further Research

Since this study sought to establish the determinants influencing performance of alternative means of transport in Kenya, it was established that from literature review most studies were conducted in developed economies such as USA, Canada, South

Africa, Norway, Germany among others European countries and scanty studies are available in Africa and specifically in Kenyan set up. Additionally, very little has been undertaken to explore performance of alternative means of transport specifically *boda boda* in Kenya, thus the researcher recommends for similar study to be undertaken in others areas of Kenya for generalization of the findings of this study.

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