



EFFECT OF BUSINESS SUPPORT SERVICES ON SUSTAINABILITY OF MOTORCYCLE BUSINESS IN NAIROBI COUNTY

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ABSTRACT-----

The use of motorcycles as an alternative to traditional transportation methods and as a progression from two-wheeled bicycles without motors has increased throughout Africa. Following the government's 2007 decision to zero-rate motorbikes with engines less than 150cc, Kenya's motorcycle taxi business has experienced tremendous growth. The operations of the motorcycle taxi business in the country are characterized by a very high rate of fatal accidents and deaths resulting from road traffic accidents and litigations hence raising questions on the sustainability of the motorcycle taxi business. The study adopted the descriptive research design. Using the systematic random selection method, a sample of 249 motorcycle taxi drivers from a population in Nairobi County was chosen. The study employed primary data that was collected through questionnaires given to motorcycle taxi drivers. A pilot study was carried out to evaluate the validity and reliability of the research tools. To determine the current links between the variables under investigation and the data shown in tables, graphs, and charts, a Multiple Linear Regression analysis was performed. The findings of the study revealed that business support services had a significant influence on the sustainability of Motorcycle Taxi Businesses in Nairobi County. It was recommended that: The government should avail business support services to the motorcycle taxi operators to improve the growth and sustainability of business in the sector and offer subsidies to those who want to engage in the motorcycle taxi business and put strict regulations to control the provision of these services.

KEYWORDS: *motorcycle taxi business, business support services; sustainable business*-----

1.0 INTRODUCTION

Motorbike taxis have proliferated in Africa because of inadequate and underdeveloped public transit systems, factors connected to market liberalization, and urbanization. Motorcycles have become widely accepted as an alternate mode of transportation in many African cities due to the failure of existing transportation networks to meet the needs of urban commuters. As a result of this development, there has been an increase in the number of persons traveling by motorbike in these towns (Edgcomb & Girardo, 2012). People in both urban and rural areas are increasingly relying on two-wheeled vehicles as their major mode of mobility.

To encourage a less fortunate segment of the population, the government began to offer a variety of incentives for property owners around the 1970s. Fiscal perks such as tax rebates and other financial advantages were among these incentives. Tax breaks and exemptions from the Transportation Licensing Board were among the perks offered to the drivers who took advantage of these incentives. The issuance of matatu licenses was done by the Registrar of Motor Vehicles, whilst licenses for other vehicles providing public service were issued by the Transport Licensing Board. Consequently, matatus were exempt from the TLB's stringent rules. Because of this, public safety issues arose as matatus became a mode of public transportation that is considered dangerous



The number of motorcycles on the road in Kenya has steadily increased during the last fifteen years. A report by The National Transport and Safety Authority in February 2018 indicated that 1,393,390 motorcycles were registered in the country (Kenya National Bureau and Statistics [KNBS], 2015)

The development of Kenya's motorcycle industry is critical to the country's economic well-being. Economic growth and poverty reduction can only be achieved if both resources and markets are easily accessible. As said, many developing countries may have difficulty accessing the aforementioned resources, which contributes to the transportation industry's lagging economic health. According to Matheka et al (2015), many elements contribute to public transportation's growth and long-term viability. So, the real question is: where can we find the money to make the much-needed improvements to public transportation? Because of the substantial initial capital expenditure required to invest in transportation, Nyachieo, (2015) say that raising the requisite finances is challenging. After that, they say that most operators use a method known as "work and pay" or their funds, which is a source that is usually limited. African countries present cartels with an opportunity for a market that is more conducive to their growth because of the thinness of their markets.

An enterprise support service is a non-financial service or product provided to business owners at various phases of developing their company's requirements. It is the primary objective of enterprise support services to provide either business advice or the transfer of skills. Edgcomb and Girand (2011) claim that microenterprise development agencies create income in the form of interest and fee income, which partially offsets their operational costs. A percentage of the organizations' overall costs are covered by these earnings. Consequently, microfinance institutions are social enterprises since they encourage microenterprises. Businesses that provide support to small as well as medium-sized enterprises (SMEs) have been increasingly growing at the same time. To manage a firm more effectively, enterprise support services are essential. In addition, if used correctly, they can improve capital access as well as serve as an alternative "collateral" when the requirement of actual collateral may hinder the meeting of standard security criteria for loans. Enterprise support services have a wide range of advantages. Various forms of assistance, such as access to shared back-office service, office space, networking support, as well as financial aid (grants or investments), can be provided to early-stage entrepreneurs by business incubators and accelerators. Typically, these firms move through four stages, starting with the blueprint stage and moving on to validation, preparedness, and growth. The "Pioneer Gap" is the moment when most potential investors do not believe that a company is investable in its early stages of growth.

Statement of the Problem

Business sustainability of the motorcycle taxi business entails the effective management and coordination of social, financial, and environmental demands as well as concerns to ensure the responsible, ethical and ongoing success of the businesses. However, the sustainability of the motorcycle taxi business in Kenya is certainly affected by various risks. Research conducted by Oluwaseyi et al (2014) established high rates of crashes and injuries among motorcycle taxi riders as a major factor hindering the sustainability of the motorcycle taxi business in Africa. Attempts by the government of Kenya to effectively regulate the operations of motorcycle taxis – both for safety and other reasons – have largely failed, with authorities unable to keep pace with the rapid influx of motorcycles into the country as well as the ever-increasing demand for motorcycle services in the country.

The ever-increasing number of motorcycle taxi accidents in Nairobi County is a major threat to the growth and business sustainability in the sector as the accidents have had adverse effects on motorcycle taxi operators as well as making people shun this mode of transport. To ensure suitability several issues should be addressed. (National Traffic Safety Administration [NTSA], 2015).

Lack of business support services is a challenge facing the motorcycle taxi business as the availability and affordability of the services are not guaranteed to the motorcycle taxi operators. Little research has also examined the factors that contribute to success in the industry. Locally Kangethe (2015) for example assessed the suitability of a regulatory framework for the operations of businesses in Kenya. This study, therefore, aims to examine the transport sector characteristics and the sustainability of motorcycle taxi businesses.



Study Objective

The study aimed to establish the extent to which business support services affect the sustainability of the motorcycle taxi business in Nairobi County

Research hypothesis

H₁₀: Business support services do not significantly affect the sustainability of motorcycle business in Nairobi County

Theoretical Review

This study was based on functionalism theory which was developed by Alfred Reginald Radcliffe-Brown and Bronislaw Malinowski in the 20th century.

Firth (1957) basing his arguments on functionalism theory noted that a particular item's function is identified by identifying its current contemporary operation in that culture. The main role played by motorbikes is the transportation of goods as well as passengers. This theory is relevant to this study as it depicts motorcycle taxis as a significant part of the functioning society and hence the best way to deal with them is to innovate and regulate them so that they can serve their rightful role. This theory therefore explains and interlinks these variables hence explaining fully their effects on the sustainability of the motorcycle taxi business.

Empirical Literature Review

The viability of motorcycle taxi businesses has been the subject of numerous studies in several countries. A study was conducted by Kokwaro and Ajowi (2018) in Kisumu, Kenya, to determine the competitive dynamics that affect the commercial sustainability of bicycle taxis in the city. This investigation was based on the five competitive forces model developed by Michael Potter. By asking respondents to rate how much a variety of influences affected the sustainability of the motorcycle industry, the study found that these pressures have an impact on the long-term viability of businesses. The study, however, lacked clearly defined indicators for assessing sustainability. As part of an investigation into the most important factors of success relating to the operations of the motorcycle taxi business in Nairobi, Mwobobia (2018) also looked at various factors that affect the businesses' sustainability. Factors such as organizational structure, human resources, technology, product innovation, service distribution, finances/budgets, and government direction were included. According to Mwobobia, the success of the motorcycle taxi industry in Nairobi is due to many factors. However, the study examines the amount of money earned daily as well as riders' evaluations of their businesses to evaluate businesses' viability. According to the findings of the study, daily earnings alone were not reliable factors indicating business sustainability, while the use of self-rating on the subject of company sustainability was prone to bias.

Additionally, the motorcycle sector is responsible for sustaining several enterprises that generate money for the local economy. Motorcyclists may usually find a technician or a hardware store selling motorcycle parts in most cities and towns where bikes are popular. Many stages include food and goods stalls and businesses (Mutiso & Behrens, 2017).

Research Gaps

The motorcycle taxi business is widely used in Kenya and has the potential of enhancing the country's economic growth. Despite this, the frequency of fatal injuries and deaths resulting from tragic road accidents that involve motorcycles as well as litigation raises questions about the sustainability of the motorcycle taxi business. There is a need for a very conclusive study to explore the factors contributing to the success of the motorcycle taxi business. Further, no conclusive study has been conducted to examine the factors that determine the sustainability of motorcycle taxi businesses in Kenya with a focus on access to business support services.

2.0 MATERIALS AND METHODS

This study adopted a descriptive survey research design that aimed at collecting data from motorcycle taxi operators in Nairobi County. According to Nyachieo (2015). Survey descriptive research is proper when the research objectives include the following: Portraying the characteristics of a social or physical phenomenon and determining the frequency of occurrence; determining the degree to which the variables are associated and making predictions



regarding the occurrence of social or physical phenomena. The target population was motorcycle taxi operators/riders registered in motorcycle Savings and Cooperative Societies in Nairobi County between 2016 and 2021. Nairobi County being cosmopolitan, the study population comprised people from different ethnic groups. A sample size of 249 was arrived at by undertaking a calculation of the target population of 726 having a confidence level of 95% as well as an error of 0.05 through the use of the formula below.

$$n = \frac{z^2 \cdot N \cdot \sigma_p^2}{(N - 1)e^2 + z^2 \sigma_p^2}$$

$$n = \frac{z^2 \cdot N \cdot \sigma_p^2}{(N - 1)e^2 + z^2 \sigma_p^2} \quad n = \frac{z^2 \cdot N \cdot \sigma_p^2}{(N - 1)e^2 + z^2 \sigma_p^2}$$

Where; n = Size of the sample,

N = Size of the population and given as 726,

e = Acceptable error and given as 0.05,

σ_p = The standard deviation of the population and given as 0.5 where not known,

Z = Standard variate at a confidence level given as 1.96 at 95% confidence level.

The researcher used a proportionate random sampling technique since it is neutral and it groups heterogeneous populations into homogenous subsets. Primary data was used for the study with self-administered questionnaires comprising both open and ended questions for research data collection.

Further, the respondents were presented with statements to respond to based on a five-point Likert scale. From the pilot results, reliability and validity were tested. The pilot testing was conducted using a questionnaire, for 20 respondents. The participants in the pilot study were randomly selected and comprised of motorcycle taxi operators in Nairobi Central Business District. The twenty respondents who participated in the pilot study were not considered in the final study. Both content and construct validity were used in the study of ascertaining the validity of the research instruments

In the assessment of the reliability coefficient of the research instrument, Cronbach’s alpha (α) was used, and it was computed as follows:

$$A = k/k-1 \times [1 - \sum (S^2) / \sum S^2 \text{sum}]$$

Where:

α = Cronbach’s alpha

k = The frequency of responses

$\sum (S^2)$ = Variance of items summed up individually

$\sum S^2 \text{sum}$ = Variance of summed up scores

Data Analysis and Presentation

The Statistical package for social sciences (SPSS) software was used in the analysis. To complement particularly in the production of graphs, charts, and tables, SPSS was used.

Multiple regression analysis was adopted in establishing the relations between the variables in the study. The choice of the Multiple regression tool was because it is a procedure that applies two or more independent variables in the prediction of an independent variable.

The multiple regression model with the variables was presented as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where:-

Y = Sustainability of Motorcycle Taxi Business

β_0 = constant



- $\beta_1, \beta_2, \beta_3$ and β_4 = Beta coefficients
- X_1 = Business support services
- X_2 = Training
- X_3 = Entrepreneurial Orientation
- X_4 = Technological Innovation
- ε = Error term

In conducting the significance test of the model, the coefficient of determination (R^2) was applied. The computation of a 95% confidence level to test any existence of a significant relationship between the dependent and independent variables. All necessary diagnostic tests were conducted by the researcher.

In determining the moderating effects of government regulatory framework on the sustainability of motorcycle taxi business in Kenya and Business support services, Training, Entrepreneurial Orientation, and Technological Innovation Moderated Multiple Regression (MMR) was used in enabling the slope of a single or multiple independent variables to have variation across the moderating variable's values, this helped in determining the existence of an extensive range of relationships as well as functional forms.

3.0 RESULTS AND DISCUSSION

Descriptive results of business support services

The study developed 5 items question elements to examine the extent of business support services in the motorcycle business

Table 1:
Reliability Statistics for Business Support Services: Item-Total Statistics (Business Support Services)

	Cronbach's Alpha
Other related businesses have increased the demand for motorcycle business	.896
Business incubators and accelerators have enhanced the sustainability of the motorcycle taxi business	.795
Good infrastructure has enhanced the growth and sustainability of the motorcycle taxi business	.764
There is financial support for entrepreneurs willing to invest in the motorcycle business	.814
The government has supported the expansion of the motorcycle business through various interventions	.813

According to Table 1, 5 items were taken into consideration. The Cronbach's Alpha for all the items was found above the 0.7 thresholds and therefore no editing was required for the instrument as far as the business support services variable is concerned.

Sustainability of Motorcycle Businesses

The study established that with 5 items, Cronbach's Alpha was found to be 0.876. This was above the 0.7 threshold and therefore no editing of the research instrument was required as far as the sustainability of the motorcycle business was concerned. All the factors were therefore retained based on the argument by Olawo et al. (2014) who pointed out that applying the factor loading with the value of 0.7 and above is very appropriate in the determination of the factors to be considered for retention. The factor loadings with values of 0.7 and above indicated clearly that the factors belong to the dependent variable (Sustainability of Motorcycle Businesses).

Table 2:
Reliability Statistics for Sustainability of Motorcycle Businesses

Cronbach's Alpha	Number of Items
.876	5



The Cronbach's Alpha achieved was already above the 0.7 thresholds and therefore all the factors were retained, this was in line with the argument by Zinbarg (2005) that an alpha coefficient of 0.80 or above implies reliability of the data obtained from the field as it has an internal consistency that is relatively high and can have a generalization reflecting all respondents' opinions of in the population that is targeted regarding the problem of research being examined.

Table 3:
Item-Total Statistics (Sustainability of Motorcycle Businesses)

	Cronbach's Alpha
Motorcycle taxi operators who follow NTSA regulations realize high levels of profits	.756
High revenues are being realized by entrepreneurs with increased adoption of technology in the motorcycle taxi business	.890
The government has put in place policies that have enhanced the profitability of the motorcycle taxi business	.810
Enhanced training among motorcycle taxi operators has improved the levels of profitability in the sector.	.813
Generally, increased levels of innovation in the public transport sector have enhanced the profitability of the motorcycle taxi business	.818

Summary of the Pilot Test Results

The data presented in Table 3 on the pilot test indicated that the Cronbach's reliability of 'Business Support Services' was 0.834, 'Training' had a value of 0.921, the Cronbach's alpha obtained for 'Technological Development' had a value of 0.902, the reliability value for Entrepreneurial orientation was 0.891, 'Government Regulatory Framework' scale produced a Cronbach's alpha value of 0.850 while the Cronbach's alpha value for 'Sustainability of Motorcycle Businesses' was 0.876. The pilot test indicated that the scales that measured the objectives had Cronbach alpha values that were very high and therefore it was not necessary to amend the research objectives. This implied that the research instrument was reliable.

Table 4:
Cronbach's Alpha (Summary)

	Cronbach's Alpha	No. of Items
Business Support Services	.834	5
Training	.921	4
Government Regulatory Framework	.902	5
Technological Development	.850	4
Entrepreneurial Orientation	.891	4
Sustainability	.876	5

Business Support Services

Table 4 presents detailed descriptive statistics for the data that was collected during the study. From the results of the study, a greater proportion of the respondents strongly agreed that: Other related businesses have increased the demand for motorcycle business (Mean=4.31; S.D=0.611); Business incubators and accelerators have enhanced the sustainability of the motorcycle taxi business (Mean=4.15; S.D=1.110); There is financial support for entrepreneurs willing to invest in motorcycle business (Mean=4.24; S.D=0.888) and the government has supported the expansion of motorcycle business through various interventions (Mean=4.37; S.D=0.607). The finding implies that business support services are important for the sustainability of the motorcycle taxi business. The findings support Edgcomb and Girardo's (2012) argument that adopting business support services have been done widely in the development



of businesses that are operated on a small scale such as the motorcycle taxi business and they contribute significantly to business growth and sustainability.

Table 4:
Business Support Services

	N	Min.	Max	Mean	Std. Dev.
Other related businesses have increased the demand for motorcycle business	238	3	5	4.31	.611
Business incubators and accelerators have enhanced the sustainability of the motorcycle taxi business	238	1	5	4.15	1.110
Good infrastructure has enhanced the growth and sustainability of the motorcycle taxi business	238	1	5	3.79	1.250
There is financial support for entrepreneurs willing to invest in the motorcycle business	238	1	5	4.24	.888
The government has supported the expansion of the motorcycle business through various interventions	238	3	5	4.37	.607
Valid N (listwise)	238				

Sustainability

The researcher instructed the respondents to indicate the extent to which they were agreeing with statements relating to the sustainability of the motorcycle taxi business, from table 4, the following statements were agreed with: Motorcycle taxi operators who follow NTSA regulations realize high levels of profits (Mean=4.39; SD=0.639); High revenues are being realized by entrepreneurs with increased adoption of technology in the motorcycle taxi business (Mean=4.39; SD=0.577); The government has put in place policies that have enhanced the profitability of motorcycle taxi business (Mean=4.49; SD=0.541); Enhanced training among motorcycle taxi operators has improved the levels of profitability in the sector (Mean=4.37; SD=0.572) and that generally, increased levels of innovation in the public transport sector has enhanced profitability of motorcycle taxi business (Mean=4.52; SD=0.525).

Table 5:
Sustainability

Sustainability	N	Min.	Max.	Mean	Std. Deviation
Motorcycle taxi operators who follow NTSA regulations realize high levels of profits	238	3	5	4.39	.639
High revenues are being realized by entrepreneurs with increased adoption of technology in the motorcycle taxi business	238	3	5	4.39	.577
The government has put in place policies that have enhanced the profitability of the motorcycle taxi business	238	3	5	4.49	.541
Enhanced training among motorcycle taxi operators has improved the levels of profitability in the sector	238	3	5	4.37	.572
Generally, increased levels of innovation in the public transport sector have enhanced the profitability of the motorcycle taxi business	238	3	5	4.52	.525
Valid N (listwise)	238				



Table 6:
Regression Analysis

Business Support Services

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.348 ^a	.461	.457	.32106

a. Predictors: (Constant), Business support services

Table 7:
Model Summary

Based on the data shown, the value of R Square is 0.348 or 34.8%, this implies that the variation of sustainability is explained by 34.8% of business support services.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.591	1	1.591	15.439	.001 ^b
	Residual	24.326	236	.103		
	Total	25.917	237			

a. Dependent Variable: Sustainability

b. Predictors: (Constant), Business support services

Table 8

ANOVA-Business Support Services

From the results of the ANOVA test for Business Support Services presented, the model is significant since the p-value is not higher than .05. The values of $F(1, 236) = 15.439$, $P < 0.05$, shows that Business Support Services is statistically and significantly predicts the sustainability of motorcycle taxi businesses in Kenya (i.e., the linear regression model presents a very good fit of the research data) hence business support services significantly influence the sustainability of motorcycle taxi business in Kenya. This means that the null hypothesis that Business support services do not significantly affect the sustainability of motorcycle business in Nairobi County, Kenya was rejected.

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	3.721	.183		20.349	.001
	Business support services	.171	.044	.248	3.929	.001

a. Dependent Variable: Sustainability

Findings

Business Support Services and its influence on the Sustainability of Motorcycle Taxi Businesses

Business Support Services and their influence on the Sustainability of Motorcycle Taxi Businesses were presented as the first objective of the study. It was established in the findings that; a greater proportion of motorcycle taxi operators were able to access at least a single form of business support service.

Financial support was one of the key business support services, on the other hand, business advisory services and training services could be accessed by a few motorcycle taxi operators. The finding further the study revealed that the most proactive government agency involved in the motorcycle taxi business was National Transport and Safety Authority (NTSA) and this agency was established to play a very significant role in enhancing support for motorcycle taxi operators, this was followed by schools/institutes that train on driving skills, the county government of Nairobi and the registered motorcycle Savings and Cooperative Societies (SACCOs). The rating of services was



average in addressing motorcycle taxi operators' needs, promoting the performance of the business as well as the growth of the industry, reduction of operational cost, and timeliness. The respondents however noted that the business support services offered had an insignificant effect on the performance of motorcycle taxi businesses.

The hypothesis that Business Support Services did not influence the Sustainability of Motorcycle Taxi Businesses significantly was tested. Based on the findings, the null hypothesis was not accepted and the inference was made that business support services significantly influenced the sustainability of Motorcycle Taxi Businesses. Further, a higher percentage of the respondents admitted that other related businesses have increased the demand for motorcycle businesses. There was also an almost undivided agreement that Business incubators and accelerators have enhanced the sustainability of the motorcycle taxi business and that good infrastructure has enhanced the growth and sustainability of the motorcycle taxi business.

4.0 CONCLUSIONS

From the findings, it can be concluded that motorcycle taxi businesses in Nairobi County are growing at a faster rate and becoming sustainable as a result of business support services. The business support services in the transport sector have increasingly enhanced the efficiency of the motorcycle taxi business hence making it sustainable.

5.0 RECOMMENDATIONS

Based on this, it is clear that business support services are very important in contributing towards the sustainability of the motorcycle taxi business in Nairobi County, measures should therefore be put in place to achieve very significant growth in the motorcycle taxi industry in the whole country to create employment opportunities. Further, the government should avail business support services to motorcycle taxi operators to improve the growth and sustainability of business in the sector.

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