Vol 13, Issue 5, (2023) E-ISSN: 2222-6990

Influence of Strategic Collaboration of Motorcycle, Accessibility to Markets and Performance of Wholesale and Retail Business in Kenya

Wanjau Christopher Kinyua, Gichuhi D. M., Kiambati, K School of Business, Karatina University, P.O. BOX 1957-10101, Karatina, Kenya Correspondent Author Email: kinyuachristopher78@gmail.com

To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v13-i5/16941 DOI:10.6007/IJARBSS/v13-i5/16941

Published Date: 11 May 2023

Abstract

The wholesale and retail sector is one of the key sectors that are expected to help the government in realizing vision 2030. They are great contributors to employment and GDP. However, of late, wholesale and retail businesses have faced a myriad of challenges in their performance in the dynamic environment. This study sought to establish the influence of motorcycle strategic collaboration, and accessibility to the markets on the performance of wholesale and business businesses in Kenya. This study was anchored on Porter's five forces model. The research philosophy adopted for the study was descriptive using a quantitative approach was used. The study targeted all wholesale and retail shops in 47 counties and systematic sampling and simple random sampling techniques were employed to select a sample size of 383 respondents. A structured questionnaire was used to collect data. Descriptive and inferential analysis was undertaken using SPSS software Version 28. On average, the findings noted that motorcycle accessibility to the markets had enhanced the growth of wholesaler and retailer businesses in Kenya with a score of 4.03 out of 5.0. On inferential statistics, the study found that motorcycle accessibility to the markets had a statistically significant influence on the performance of wholesale and retail businesses in Kenya (t = 26.341; P = 0.000 < 0.05). The coefficient of determination was R²=0.802 suggesting that motorcycle accessibility to the markets explains 80.2% of variations in the performance of wholesale and retail businesses that motorcycles for last-mile delivery in Kenya. The study concluded that motorcycle accessibility had a strong and significant relationship with performance. The study recommends that there is a need to engage motorcycle delivery services to easily access more customers in remote areas. The government should formalize and regulate the activities of commercial motorcycle operators to strengthen the business. Keywords: Strategic Collaboration, Motorcycle Accessibility, Performance, Wholesale, Retail.

Vol. 13, No. 5, 2023, E-ISSN: 2222-6990 © 2023

Introduction

Wholesalers and retailers today are not only engaged in the constant exploration of strategies to the beat competition but also exploring strategies to help them stay relevant. The retail market involves selling goods to the final consumer through business enterprises which include sole traders, organizations, and partnerships. They provide the much-needed service of making goods available to customers in their locations and in convenient quantities. Retailing is buying direct from producers or wholesalers, then breaking the bulk into smaller quantities, displaying the goods for sale online or physically, and may also sometimes include delivery (Adu et al., 2018).

To enhance service delivery, wholesalers and retailers have had strategic collaborations with the motorcycle industry in service delivery solutions to deal with their deficiencies. The use of the motorcycle has grown over time globally and in Africa. Nigeria, South Africa, and Tanzania have the highest number of motorcycle in Africa, followed by Kenya, Algeria, Uganda, Egypt, Morocco, Angola, and Ethiopia in that order (Research& Markets, 2017). Nigeria has the highest number of motorcycles, with about eight million motorcycles operating across Nigeria (George, 2020). In East Africa, rapidmotorcycle growth was mainly driven by a lucrative fiscal stimulus that decreased two-wheelers prices. In 2016, it was noted that Tanzania had the most commercial motorcycles in East Africa the region which was about one million motorcycles. On the other hand, Uganda was trailing with the smallest number of about two hundred thousand motorcycles (Muchira, 2016).

The motorcycle industry is one of the major sources of employment in urban areas most of the beneficiaries being retailers and wholesalers because of their ability to affect the movement of goods particularly in situations where there are few or no other options for delivery. This is extended to the fact that motorcycles do suffer less from road congestion problems. This makes delivery times shorter, and more dependable compared to conventional transport which needs a more stable period to do a certain trajectory which is regardless of weather conditions, traffic jams, and peak, or off-peak times. The motorcycle can reach remote areas where vehicles may not be able to reach due to poor road networks. No road is too narrow and there is no area too remote for motorcycles to reach (Global Retail Development Index (GRDI), 2019)

According to Kalua (2018), commercial motorcycles have become a preferable means of transport in the majority of towns and rural areas because in major cities there are increased traffic jams, and the rural areas are marred by poor infrastructures. Commercial motorcycles have also become a critical aspect in the delivery of supplies and parcels in both homes and businesses. MAAK (2019) observed that most companies with operations in Nairobi had invested in motorbikes to help in their operations. Commercial Motorcycles were preferred by most companies because of their ease of maneuverability and their ability to bite traffic jams in a country where traffic jam is the order of the day. Commercial motorcycles are also cost-effective as their petrol consumption is low compared to motor vehicles. This is a clear indication that commercial motorcycles can be used to steer the economy by promoting the growth of the wholesale and retail sectors to promote the attainment of Vision 2030.

The importance of wholesalers and retailers in an economy cannot be gainsaid. However, the sector has been undergoing a difficult time that has seen some of the big retailers closing. A case in point in Kenya set up is Nakumatt which went into receivership in early 2018 after falling behind on its payments to suppliers, while Uchumi faced similar difficulties. The failure of the two big retailers had a big impact on the retail sector (Gamberini, 2020). Telma (2020), noted that, that domestic companies have historically had problems with managing costs,

Vol. 13, No. 5, 2023, E-ISSN: 2222-6990 © 2023

planning growth, managing their supply chains, and dealing effectively with downsizing. Other supply chain facing similar logistics problem is Tuskys Supermarkets and Ukwala Supermarket. Any strategy that can be employed to ensure product cost management will assist the sector. Global Retail Development Index (GRDI), (2019) noted that there was a drop by more than five places in the global performance of retail markets in Kenya due to the harsh business environment that continues to frustrate retail businesses thus their exit from the market. Any strategy that can reverse the trend in the wholesale and retail industry sector will be of great help. One challenge is high transport cost, motorcycles can be used as an alternative channel of transporting goods, this is because they are cheaper in terms of fuel consumption, affordable, and can easily maneuver through traffic congestion thus making delivery of products fast, convenient, and cost-effective. Several studies have been conducted in Kenya on public motorcycle transport. These studies have focused more on its growth and expansion (Howe & Davis, 2001; Mbugua, 2018; Muindi & Nyabuta, 2018). Though studies have indicated that there are benefits of motorcycles in the distribution channel, there is no conclusive study that has been conducted to investigate the contribution of motorcycle strategic collaboration on the performance of wholesale and retail sector growth in Kenya. The purpose of the study was to identify the influence of strategic collaboration of motorcycles, accessibility to the markets by motorcycles, and performance of the wholesale and retail business in Kenya.

Research Objectives

The study sought to address the following objectives

- i. To establish the influence of strategic collaboration of motorcycles accessibility to the markets by motorcycles and performance of the wholesale and retail business in Kenya.
- ii. To investigate the moderating effect of road safety and compliance training of motorcycle riders on the relationship between motorcycle accessibility to the markets and performance of wholesale and retail sector in Kenya.

Theoretical Review

This study was anchored on Porter's five forces model (Porter, 1980). The model was proposed by Porter (1980) as a useful theory for evaluating a firm's industry structure in strategic processes. The basic premise of the framework is that organizational strategy should be informed by an assessment of the threats and opportunities facing the organization. The five performance forces that define each industry and market include; the threat of new entrants, threat of substitutes, bargaining power of suppliers, bargaining power of customers, and performance rivalry among existing players. A viable organizational strategy aims at modifying these forces in a manner that enhances the performance situation of the firm (Chesbrough & Appleyard, 2007). The models explain why and how different business industries can maintain profitability. The five forces model has been used in the industry by business leaders and scholars in evaluating the attractiveness, competition intensity, and profitability of a market or an industry.

To maintain profitability, Porter (1985) developed four generic models that businesses can adopt to gain a competitive advantage and maintain profitability. The strategies were cost leadership, differentiation, cost focus, and differentiation focus. Of the four strategies, the Cost Leadership Strategy is where this study is anchored. The Cost Leadership Strategy is the deliberate efforts by a business in reducing the cost of delivering products or services to

Vol. 13, No. 5, 2023, E-ISSN: 2222-6990 © 2023

customers, making sure the business is profitable and therefore adding shareholder value or diversifying to other parts of the business.

The cost leadership strategy calls for the selling of standard products at a minimal price (Porter, 1985) combined with aggressive pricing of goods (Porter, 1980). Further, a business should enlarge its scope and strive to serve multiple industry segments at low cost due to economies of scale (Porter, 1985). Porter (1980) describes the core philosophy of this strategy as a vigorous pursuit of cost from experience, aggressive construction of efficient-scale facilities, managing customer accounts, tight cost and overhead control, and cost minimization in areas like sales force, research, and development, advertising, and service. Business leaders should have great attention to cost control in order to achieve business goals. Achieving low cost while maintaining high quality, good service, and paying attention to other areas should be the focus of the entire strategy. Therefore, the cost leadership strategy involves providing high-quality products and services while underpricing everybody else (Kiechel, 1981).

One of the reasons wholesalers and retailers are embracing motorcycles in their delivery is to minimize the cost of delivery to gain cost leadership. Thus, the theory relates to this study because the wholesalers and retailers have to scan the environment and embrace a viable organizational strategy that aims at modifying these forces in a manner that enhances the performance situation of the firm.

Literature Review

Transport infrastructure and services are critical components of economic and social development since they enable the smooth flow of people and goods to facilitate trade and social cohesion. Given the vital role of transportation in economic and social development, all the nations worldwide invest in transport infrastructure and undertake interventions to strengthen transport service systems (Afolabi & Gbadamosi, 2017). One such response designed to enhance transport service systems was the zero-rating of motorcycles in the early years of the 21st Century by most countries in Africa, including Kenya. Nevertheless, public transport networks in developing countries are still poorly designed and inadequate (Guillen et al., 2013; Jaligot et al., 2017), leading to the proliferation and popularity of motorcycles for transport in both urban and rural areas (Afukaar et al., 2019; Jaligot et al., 2017).

Access to transport is further constrained by availability challenges related to bad roads and sparse road networks, particularly in rural villages. Therefore, commercial motorcycles become increasingly important as a means of transport in Africa (Gamberini, 2014). This stems from the fact that because a two-wheeled motorcycle is smaller than motor vehicles, the two-wheeled motorcycle is more easily maneuverable than the motor vehicles and can operate off-road and access even remote areas with bad or no roads. Motorcycles are also more affordable to the common man and can easily reach inaccessible parts through narrow and poorly paved roads (SA & MM, 2018). They are cheaper to maintain than motor vehicles because the two-wheeled motorcycle has smaller engines and therefore has better fuel economy, and their parts are more affordable (Almeida et al., 2016). Congruently, acquiring motorcycles is easy. Its low maintenance cost, combined with the known flaws of public transport, has created an environment conducive to utilizing motorcycles as an instrument of work, mostly informal.

Empirical studies show that the usage of motorcycles has become popular with retailers and wholesalers due to their ease of accessibility to the markets and low cost to the businesses. Commercial motorcycles utilization is increasing in many nations worldwide (Olvera et al.,

Vol. 13, No. 5, 2023, E-ISSN: 2222-6990 © 2023

2012; Peraphan et al., 2017). This increase in use of motorcycles is attributed to global growth of motorization and disorganized and unreliable other transport networks in numerous developing countries and the cost they charge the transport users (Mbegu & Mjema, 2019; Muchira, 2016). In most developing nations, the business usually attracts small and medium-sized investors. Politicians and the youth also count on commercial motorcycles as alternative employment (Olvera et al., 2012). Starkey (2016) argued that motorcycles are popular in the developing world because of their availability and accessibility to markets. Other inherent benefits, such as door—to—door operation and the capacity to enter narrow footpaths inaccessible by other driven modes, are fast speeds and cost-effectiveness compared with others. These qualities are making the usage of motorcycles by retailers for their last-mile delivery. Their ability of door-to-door delivery at minimal cost has seen wholesalers and retailers retain their customers, widen their customer base, and maintain profitability (Muchira, 2016).

Pongprasert and Kubota (2017) and noted that commercial motorcycles have other qualities that make them an attractive and convenient means of transport. For instance, their services are easily accessible. Secondly, they are not restricted to specific which is the case with other public transport vehicles, do not have a fixed schedule, and can provide services in a timely and personalized manner (Hariyatno et al., 2018; Jenkins et al., 2020). These qualities fit well with retailers and wholesalers whose customers are in different areas and have no fixed delivery schedules. Thus, any time customers need supply, the motorcycles fit well (Hariyatno et al., 2018). Operators enjoy significant economic benefits and regulatory autonomy, as this industry is still largely informal. Any person with a motorcycle, regardless of their capacities or skills to maneuver and operate the vehicle, could offer commercial transport services to those in need of it at any given time with the flexibility (Cano, 2018). Given the preceding, there has been a marked increase in the utilization of commercial motorcycles by retailers and wholesalers, especially in sub-Saharan Africa.

Mbugua (2018) examined the effects of the motorcycle transport revolution and the effect of the motorcycle industry and the economic growth of Kenya. He noted that motorcycles have contributed to the growth of the economy. Other studies that have been done relating to the motorcycle industry have mainly been on the transport sector such as an inquiry on the Boda boda as a means of transport accessible to urban low-capacity and rural folks in Uganda (Howe & Davis, 2001). Muindi and Nyabuta (2018) carried out a study on informal motorcycle businesses and livelihoods in urban areas of Kenya. This inquiry noted that motorcycles have massive improvement, development, and enhancement of the Kenyan economy as goods and commodities are transported in time from the farm to the marketplace as well as the human capital. This was again an indication that even the agribusiness was using motorcycles to reach the market. Nyabuta and Muindi (2018) did a study on review of the motorcycle phenomenon on livelihoods in Eldoret and Kakamega Municipalities and established that the informal commercial motorcycle operation is an important source of income to many poor urban households as it provides a steady flow of daily income both the motorcycle owners who happen to rent out their motorcycles and the operators. It also enhances the flow of goods from retailers to customers between different parts of the municipalities. Though studies have indicated that there are benefits of motorcycles in the distribution channel, there is no conclusive inquiry that has been conducted to investigate the strategic positioning and contribution of motorcycle strategic collaboration on the performance of wholesale and retail sector growth in Kenya. This study, therefore, seeks to establish the influence of

Vol. 13, No. 5, 2023, E-ISSN: 2222-6990 © 2023

motorcycle accessibility to the markets on the performance of the wholesale and retail business in Kenya.

Research Methodology

This study adopted a positivist paradigm and adopted descriptive research design. The population of the study constituted 17,000 wholesale and retail businesses in the 47 Counties in Kenya. However, 10% of the counties were selected for the study according to Mugenda and Mugenda (2003) who argue that a sample of 1-10% of the target population is appropriate for scientific studies. Systematic sampling was used to select 5 counties from which a sample size of 383 was determined by the use of the Krejice Morgan table and the respondents were identified through simple random sampling from the five counties. The study collected primary data using a structured questionnaire. The study ensured there is validity by undertaking a pilot study and reliability was checked by measuring the internal consistency of the questionnaire using Cronbach's Alpha. Data were analyzed by use of both descriptive statistics and inferential statistics with the help of SPSS software. The coefficient of determination (R2) was used to establish if the model was statistically significant and the extent to which each of the independent variables explained the changes in the dependent variable. F-statistic was determined at a confidence level of 95% to determine if a significant association existed between motorcycle solutions and the performance of retail and wholesale businesses in Kenya.

Results and Discussions

The study sought to examine the influence of motorcycle accessibility to the markets on the performance of the wholesaleand retail business in Kenya. The respondents were asked to indicate their level of agreement with motorcycle accessibility to the markets using a Likert scale of 1 to 5, where 1 was Strongly Disagree and 5 was Strongly Agree. The study adopted both descriptive and inferential analysis to form the conclusions and recommendations. The findings are presented

Vol. 13, No. 5, 2023, E-ISSN: 2222-6990 © 2023

Table 1
Responses on Motorcycle Accessibility to the Markets

Statement	SA	Α	N	D	SDA	Mea	S.
Motorcycles services are	130/16 6	133(44.6	22/7 4\	4(1.4)	0(0)	n 4.19	Dev 0.70
easily reachable by our)	155(44.0	22(7.4)	4(1.4)	0(0)	4.19	0.70
customer base	,	,					
Motorcycles operate in	117(39.3	140(46.9	20/12 1	2(0.7)	0(0)	4.32	0.69
remote areas unreached)	140(40.3))	2(0.7)	0(0)	4.32	0.03
by other modes of	,	1	,				
transport reaching more							
customers							
Motorcycles widen the	110(36.9	147(49.3	30/13 1	2(0.7)	0(0)	4.2	0.70
customer base due to their)))	2(0.7)	0(0)	4.2	0.70
easy access to them	,)	,				
Motorcycles easily reach the	100(33.6)	143(48)	51(17.1)	4(1.3)	0(0)	3.09	0.84
inaccessible parts through	100(33.0)	143(40)	31(17.1)	7(1.5)	0(0)	3.03	0.04
narrow and poorly paved							
roads							
Inadequate and poorly	98(32.9)	157(52.7)	41(13.7)	2(0.7)	0(0)	4.14	0.81
designed roads have resulted							
in the increasing need for							
motorcycle transport in rural							
and urban areas which is							
imperative for wholesalers							
and retailers	110/20 6\	150/52.4\	10(6)	2/1\	0(0)	116	0.64
Increased accessibility of motorcycles to remote	118(39.6)	159(53.4)	18(6)	3(1)	0(0)	4.16	0.64
customers has increased							
their satisfaction which has							
increased their purchase in							
the wholesalers and retailers							
which employ motorcycles							
for delivery services							
The increased availability of	59(19.8)	193(64.7)	44(14.8)	2(0.7)	0(0)	4.15	0.63
commercial motorcycles							
makes transportation of							
goods easy in rural and							
remote areas.	02/24 2)	426/45 6\	67/22 F)	2(0.7)	0(0)	2.00	0.74
Many motorcycles can be	93(31.2)	136(45.6)	67(22.5)	2(0.7)	0(0)	3.99	0.71
accessed at any time for a small amount of money							
which has promoted the							
performance of wholesalers							
and retailers							
Overall Average Value						4.03	0.72

From table 1, the parameter that had the highest average score was that "motorcycles operate in remote areas unreached by other modes of transport reaching more customers"

Vol. 13, No. 5, 2023, E-ISSN: 2222-6990 © 2023

which had an average score of 4.32, and a majority (86.2%) agreed with the statement. This was followed by "motorcycles widen the customer base due to their easy access to them" with a score of 4.2 and a majority (86.2%) agreeing with the statement. The third was a statement on "motorcycles services are easily reachable by our customer base" at a score of 4.19. All the other statements had scored more than average and the overall average was 4.03. These findings agree with those of Michael et al (2012), who found that the use of motorbikes benefits the riders and their community, who get reliable and accessible transport services.

The study then carried out regression analysis to test the hypostasis. Through regression analysis, the study tested the null hypothesis that there is no significant relationship between motorcycle accessibility to the markets and the performance of wholesale and retail businesses in Kenya. A simple linear regression analysis was conducted in which performance was regressed against motorcycle accessibility to the markets. The findings of this test were interpreted using the R², F- statistic, T-test statistics, and the P-values. The model summary results were as shown in Table 2.

Table 2

Model Summary

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate
1 .	.896ª	.802	.801	.31571

a. Predictors: (Constant), Accessibility

The coefficient of determination (R²) and correlation coefficient (R) shows the degree of accessibility of commercial motorcycles and the performance of wholesale and retail businesses. Results showed that R² = 0.802 and R = 0.896. An R-value of 0.896 indicates that there is a strong and positive relationship between the accessibility of commercial motorcycles and the performance of wholesale and retail businesses. Further, the results showed that the variation in performance of the wholesale and retail business was 80.2% (R-Square = 0.802) explained by the accessibility of commercial motorcycles to the markets. These findings agree with those of Michael et al. (2012), who found that the use of motorbikes benefits the riders and their community, who get reliable and accessible transport services.

Table 3
ANOVA for Accessibility of Commercial Motorcycles and Performance

		<u>, , </u>					
Model		Sum of Squa	ares df	Mean Squ	are F	Sig.	
	Regression	69.158	1	69.158	693.857	.000 ^b	
1	Residual	17.044	297	.100			
	Total	86.202	298				

a. Dependent Variable: Performance

b. Predictors: (Constant), Accessibility of commercial motorcycles

From the ANOVA Table 4 of the stepwise linear regression analysis, it is clear that the model is significant in predicting how the accessibility of commercial motorcycles determines the performance of the wholesale and retail sectors. The regression model achieved a high degree of fit (F = 693.857; P = 0.000 < 0.05). The relationship was significant at a critical value (0.05) since the reported p-value (0.000) was less than the critical value. This confirms the positive

Vol. 13, No. 5, 2023, E-ISSN: 2222-6990 © 2023

relationship between motorcycle accessibility to the market and the performance of the wholesale and retail sectors.

Table 4
Coefficients of Accessibility of Commercial Motorcycles and Performance

Model		Unstandardize Coefficients	zed Standardized Coefficients		t	Sig.
		В	Std. Erro	or Beta		
1	(Constant)	.988	.121		8.140	.000
1	Accessibility	.786	.030	.896	26.343	1 .000

a. Dependent Variable: Performance

Accessibility of commercial motorcycles to the markets had a statistically significant influence on the performance of wholesale and retail businesses, according to the regression coefficients of β = 0.786 and p=0.000. The study also showed that an increase of one unit in the accessibility of commercial motorcycles to the markets would lead to an increase of 0.786 units in performance. The study's conclusions showed that the accessibility of commercial motorcycles to the markets significantly and favorably affected the performance of wholesale and retail businesses.

The model was summarized as follows

Performance = 0.988+ 0.786 Motorcycle Accessibility +0.121

The findings in this study agree with studies done by other scholars about motorcycles and business performance. Olvera et al (2012), noted that, in Kenya, there is evidence of increased usage of motorcycles that leads to enhanced business performance in the country. The usage of the motorcycle was a result of their easy access to different areas (Peraphan et al., 2017). Further, this increase was noted to be attributed to the worldwide growth of motorization, the poor and unreliable transport infrastructure systems, and low-cost motorcycles in terms of purchase and maintenance compared to motor vehicles. Motorcycles are considered reliable and more readily available due to their accessibility to different parts of the country (Starkey, 2016). This makes them a good alternative for wholesalers and retailers in the delivery of goods to their customers.

A regression analysis was conducted to investigate the moderating effect of road safety and compliance training of motorcycle riders on the relationship between motorcycle accessibility to the markets and performance of wholesale and retail sector in Kenya. Results are presented in Table 5.

Table 5

Model Summary with the Moderating Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.967a	0.935	0.934	0.18521

a Predictors: (Constant), Training Compliance, Accessibility

The regression analysis shows a very strong relationship, $R^2 = 0.935$ which revealed that jointly, motorcycle accessibility to the markets and road safety and compliance training of motorcycle riders accounted for 93.5% (R-Squared=0.935) of the variation in performance of wholesale and retail businesses. The strength of the influence is higher than when the moderating variable was held constant implying that the moderating variable has a positive

Vol. 13, No. 5, 2023, E-ISSN: 2222-6990 © 2023

effect on the overall change in all the variables jointly. This indicates that the moderating variable enhances the relationship between the variables onwards. The findings imply that training of motorcycle riders on road safety and compliance is very important in improving the performance of wholesale and retail sector in Kenya. The findings shows that majority of the motorcycle riders have been trained on road safety and they are compliant with the rules and regulations laid down by NTSA.

Table 6
ANOVA Test for Motorcycle Accessibility to the Market with Moderating Variable

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	144.177	2	72.089	2101.56	.000b
	Residual	10.085	294	0.034		
	Total	154.262	296			

a Dependent Variable: Performance

b Predictors: (Constant), Training Compliance, Accessibility

The ANOVA results for motorcycle solutions with moderating variable in Table 6 indicates that the model was significant with F=2101.56 and p=0.000<0.05 meaning that motorcycle accessibility to the markets and road safety and compliance training of motorcycle riders had significant effect on performance of wholesale and retail sector. A further test on the beta coefficient of the resulting model in Table 7 shows a significant change in the beta coefficients after the introduction of the moderating variable. The model remained statistically significant with p value= 0.000 < 0.05.

Table 7
Overall Regression Coefficients with Moderating Variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	0.811	0.123		6.566	0.000
	Accessibility	0.675	0.091	0.493	7.432	0.000
	Training Compliance	0.532	0.074	0.48	7.237	0.000

a Dependent Variable: Performance

A further test on the beta coefficients of the resulting model, the constant $\alpha=0.811$ is significantly greater than 0, and since the p value p = 0.000 is less than p= 0.05 the constant is significant. The coefficients $\beta_1=0.675$ and $\beta_2=0.532$ are also significantly different from 0, with p values 0.000, and 0.000 respectively which are all less than p=0.05. The equations for moderations were captured in the following equations;

$$Y = 0.811 + 0.675X_1 + 0.532X_2 + 0.123$$

Conclusion

The study concluded that the accessibility of commercial motorcycles to the markets and the performance of wholesale and retail businesses in Kenya were statistically significant. The ease of commercial motorcycles to reach customers faster, accessing remote areas and their

Vol. 13, No. 5, 2023, E-ISSN: 2222-6990 © 2023

ability to access narrow and poorly paved roads at low cost have made the motorcycles useful in solving transportation issues. The study concluded that the increased availability of commercial motorcycles has made transportation of goods easy in rural and remote areas which has promoted wholesale and retail businesses in return. The study concluded that road safety and compliance training ofmotorcycle riders had a positive and significant moderating effect on the relationship between motorcycle accessibility to the markets and performance of wholesale and retail sector in Kenya. This implies that the moderating variable enhances the relationship positively.

Recommendations

Due to motorcycle accessibility to the markets, the study recommends that there is need to engage motorcycle delivery services to easily access more customers in remote areas, thus reaching more customer base faster. This will also help in improved performance since more sales will be made as more customers will be served once they make orders via calls and have the motorcycle riders deliver their goods fast and efficiently. The government should formalize and regulate the activities of commercial motorcycle operators to strengthen the business. There are inherent benefits for usage of motorcycles by retailers for their last-mile delivery such as door—to—door operation and the capacity to enter narrow footpaths inaccessible by other driven modes, are fast speeds and cost-effectiveness compared with others. Their ability of door-to-door delivery at minimal cost has seen wholesalers and retailers retain their customers, widen their customer base, and maintain profitability.

The study also recommended that those in charge of road safety and compliance in this case NTSA, should uphold and enhance official training of the commercial motorcycle delivery solution providers. On the part of the providers it recommended that they equally take advantage of the training and acquire the requisite compliance certification of road safety. In addition to this the study further recommends that wholesalers and retailers to strictly employ trained and qualified motorcycle delivery providers. By engaging trained riders the wholesalers and retailers will be guaranteed of the safety of their goods and delivery of the said goods to their different clients thus minimizing losses.

References

- Afolabi, O. J., & Gbadamosi, K. T. (2017). Road traffic crashes in Nigeria: causes and consequences. *Transport & Logistics: the International Journal*, 17(42), 2406-1069.
- Afukaar, F., Damsere-Derry, J., Peters, K., & Starkey, P. (2019). Rural Transport Services Indicators: Using a new mixed-methods methodology to inform policy in Ghana. Transportation Research Interdisciplinary Perspectives, (3).
- Almeida, G., Medeiros, F., Pinto, L. O., Moura, J. M., & Lima, K. C. (2016). *Prevalence and factors associated with traffic accidents involving motorcycle taxis.* Revista Brasileira de Enfermagem, 69(2), 3828.
- Arosanyin, G. T. (2011). Earnings from commercial motorcycle operations in Ilorin, Nigeria: A inquiry on Determinants. *Ghana Journal of Development Studies*
- Cano, S. M. (2018). *Habal-Habal: Characteristics of Motorcycle Taxi Users in Metropolitan Manila* (Unpublished Master's Thesis). Chulalongkorn University. https://cuir.car.chula.ac.th/xmlui/handle/123456789/63648
- Chesbrough, H. W., & Appleyard, M. M. (2007). Open Innovation and Strategy. *California Management Review*, 50(1), 57-76.

Vol. 13, No. 5, 2023, E-ISSN: 2222-6990 © 2023

- Gamberini, G. L. (2014). Boda Boda: The Impact of A Motorbike Taxi Service in Rural South Uganda. Columbia University. *Journal of Politics & Society, 25(2), 138–153*. https://doi.org/10.7916/d8gt5mft
- George, L. (2020). Crowded Lagos to ban motorbikes from most of the Nigerian metropolis.

 Reuters Media. https://www.reuters.com/article/us-nigeria-transportationban/crowded-lagos-to-ban-motorbikes-from-most-of-nigerian-metropolisidUSKBN1ZQ2GF
- Global Retail Development Index (GRDI), 2019). *Leapfrogging into the future of retail*. A.T. Kearney
- Guillen, M. D., Ishida, H., & Okamoto, N. (2013). Is the use of informal public transport modes in developing countries habitual? *An empirical study in Davao City, Philippines. Transport Policy, 26, 31–42*. https://doi.org/10.1016/j.tranpol.2012.03.008
- Hariyatno, H., Wimpertiwi, D., Isanawikrama, I., & Bawono, A. (2018). Ease of Online Ojek Service Grows Consumer Loyalty. The Winners, 19(2). https://doi.org/10.21512/tw.v19i2.4610
- Howe, J. (2003). Filling the middle': Uganda's appropriate transport services. *Journal of Transport Reviews*, 23(2), 161-176.
- Jaligot, R., Kemajou, A., & Chenal, J. (2017). A new approach to spatial analysis of motorcycle taxi activities – the case of Port-au-Prince, Haiti. Urban, Planning and Transport Research, 5(1), 78–91. https://doi.org/10.1080/21650020.2017.1402697
- Jenkins, J., Mokuwa, E. Y., Peters, K., & Richards, P. (2020). *Changing women's lives and livelihoods: motorcycle taxis in rural Liberia and Sierra Leone.* Proceedings of the Institution of Civil Engineers Transport, 173(2), 132–143. https://doi.org/10.1680/jtran.18.00162
- Kenya National Bureau of Statistics. (2017). Kenya facts and figures. Nairobi: Kenya.
- Kiechel, W. (1981). The decline of the experience curve. Fortune, 139-145.
- Mbegu, S., & Mjema, J. (2019). Poverty Cycle with Motorcycle Taxis (Boda-Boda) Business in Developing Countries: Evidence from Mbeya—Tanzania. *OALib*, 06(08), 1–11. https://doi.org/10.4236/oalib.1105617
- Mbugua, C. (2011). The effects of the motorcycle transport revolution on the economic growth of Kenya. A case of Thika district. Unpublished thesis submittedto KCA University. Nov. 2011.
- Michael, C. E., Ojedoku, U. A., & Chinwokwu, E. C. (2012). Abolition of Commercial Motorbikes and Its Implication on Transportation and Criminality in Calabar Metropolis. International *Journal of Social Science Studies,* 1(1). https://doi.org/10.11114/ijsss.v1i1.103
- Miller, D., Peter, H. P. (2021). Successful and Unsuccessful Phases of the Organizational Life Cycle, Readings in Organizational Decline.
- Muchira, N. (2016,). *Motorcycles are set to become the main mode of transport in Africa*. Biz Community. https://www.bizcommunity.com/Article/196/582/151424.html
- Mugenda, O., & Mugenda, A. (2003). Research Methods: Quantitative and Qualitative methods. Nairobi, Rev editions.
- Mugenda, O., & Mugenda, A. (2003). *Research Methods: Quantitative and Qualitative methods*. Nairobi, Rev editions.

Vol. 13, No. 5, 2023, E-ISSN: 2222-6990 © 2023

- Muindi, K., & Nyabuta, O.S. (2018). Informal Motorcycle Business and Livelihoods in Urban Areas of Kenya: Evidence from Eldoret and Kakamega Towns, *International Journal Of Innovative Research & Development*, 7(3), 74-87
- Nkede, L. (2012). *The Socio-Cultural Impact of the Introduction of Motorbike Taxis in the Rural Community. The* University of Yaoundé, PublishedMaster Thesis.
- Nyabuta, O. J. S., & Muindi, K. (2018). A Review of the Motorcycle Phenomenon on Livelihoods in Eldoret and Kakamega Municipalities. *International Journal of Academic Research in Business and Social Sciences*, 8(2), 576–586.
- Olvera, L. D., D. Plat, P., Pochet, and Maidadi, S.(2012). Motorbike Taxis in the Transport Crisis of West and Central African Cities. *EchoGeo* 20: 1–15.
- Olvera, L. D., Plat, D., Pochet, P., & Maidadi, S. (2012). Motorbike taxis in the transport crisis of West and Central African cities. *EchoGéo. Advanced online publication*. https://doi.org/10.4000/echogeo.13080
- Peraphan, J., Hermann, K., & Markus, M. (2017). *The conundrum of the motorcycle in the mix of sustainable urban transport.* Transportation Research Procedia, 25, 4869–4890. https://doi.org/10.1016/j.trpro.2017.05.365
- Pongprasert, P., & Kubota, H. (2017). Switching from motorcycle taxi to walking: A case study of transit station access in Bangkok, Thailand. *IATSS Research*, 41(4), 182–190. https://doi.org/10.1016/j.iatssr.2017.03.003
- Porter, M. (1980). Porter's Five Forces Model. New York: Free Press
- Porter, M. (1985). Competitive Advantage. New York: The Free Press.
- Puan, O. C., Hassan, Y. A. H., Mashros, N., Idham, M. K., Hassan, N. A., Warid, M. N. M., & Hainin, M. R. (2019). Transportation mode choice binary logit model: A case study for Johor Bahru city. In *IOP conference series: Materials science and engineering* (Vol. 527, No. 1, p. 012066). IOP Publishing.
- Research, & Markets. (2017). *Africa Two-wheeler (Motorcycle vs. Scooter) Market Competition Forecast & Opportunities, 2021* https://www.prnewswire.com/news-releases/africa-two-wheeler-motorcycle-vsscooter-market-competition-forecast-opportunities-2021---research-and-markets300444172.html
- SA, B., & MM, Z. (2018). Motorcycle Riders' Risky Behaviors and Safety Measures: A Hospital-Based Study. *Egyptian Journal of Occupational Medicine*, 42(3), 453–468. https://doi.org/10.21608/ejom.2018.12210
- Starkey, P. (2016). Provision of rural transport services: user needs, practical constraints, and policy issues. *Transport and Communications Bulletin for Asia and the Pacific 86,* 6–22.