
SERVICE QUALITY AND CUSTOMER ACCEPTABILITY AT THE CAPE COAST BRANCH OF METRO MASS TRANSIT LIMITED

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ABSTRACT

The paper seeks to examine customer's perception about the state of public transport in Ghana; assess the extent to which customers are satisfied with Metro Mass Transport's (MMT) public bus service delivery; and further establish the relationship (if any) among service quality, customer satisfaction, and customer loyalty. A quantitative approach, using questionnaires, was adopted to survey 377 regular students from the University of Cape Coast, who mostly patronize public transport services, especially on vacations, public holidays and school reopening seasons. Data was analyzed, using descriptive statistics and Pearson's product moment correlation technique. The findings indicate that the respondents' strongest perception about the state of public transportation was its importance to society. Majority of the respondents were generally dissatisfied with MMTs service delivery; and empirically, there was a weak, negative correlation between customer satisfaction in terms of service quality and customer loyalty. It is recommended that Metro Mass Transit Limited management focus on some quality variables such as safety-comfort-cleanliness; information-communication; accessibility; terminal and stop points performance; and online performance, in order to improve and sustain customer loyalty.

Key words: Public transport, Metro Mass Transit Limited, service quality, perception, customer satisfaction, customer loyalty

Introduction

Arguably, the mobility of people is fundamental to their ability to participate in society; However, developing countries face diverse challenges, including inadequate service, poorly arranged schedules, lack of facilities, including bus stops and shelters, and infrequency of services, particularly at off-peak times (Finn & Mulley, 2011), growth in private vehicle ownership, inefficient public transport, and the deteriorating urban environment (Imran & Low, 2005). According to Gowan, Seymour, Ibarreche and Lackey (2001), service provision is more complex in the public sector because it is not simply a matter of meeting expressed needs, but of finding out unexpressed needs, setting priorities, allocating resources and publicly justifying and accounting for what has been done. However, the convenience of these services is severely compromised (Mashiri, Moeketsi, & Baloyi, 2010). Meanwhile, Lai and Chen (2010) argue that public transport systems need to become more market oriented and competitive; and competitive and attractive to the transit seekers (Belwal & Belwal, 2010).

White (2002) defines public transport as all modes available to the public, irrespective of ownership. However, for the purpose of this study, the operational definition of public transport is a state-owned bus that provides transportation services to the general public for a fee. A report by the World Bank (as cited in Wijaya, 2009) hinted that Ghanaians use Metro Mass Transit Limited's (MMT) buses (a public transport service company), *tro-tro* (jitney minibuses that operate informally along specified routes), private cars, taxis and commercial buses as the main modes of transportation, and hinted that large cities in developing countries are highly dependent on road transport. Despite the process of transformation in public transport industry in many developing countries (Randheer, Al-Motawa, & Vijay, 2011), a report by Global Road Safety Facility (as cited in Awal, 2013) indicates that the road-related mortality rate per capita in Africa is the highest in the world at 28.3 deaths per 100,000 at an estimated cost of US\$ 3.7 billion, and reported that statistics of accident death in Ghana is too alarming. Ghana is rated among the road accident-prone regions in West Africa (Akongbota, 2011).

Meanwhile, Rodrigue, Comtois and Slack (2009) posit that there exists a positive relationship between transportation and national development. These services improve the life of communities by providing safe, efficient, and economic transport; ensure personal mobility through making available cost effective modes; and benefit society by easing traffic congestion, saving money, and creating and sustaining jobs (Tran & Kleiner, 2005). Beirao and Cabral (2007) maintain that one of the challenges that transport organisations face is that service quality is a complex area of study and its measurement, particularly in public transport, is complicated by the subjective nature of the service. Several researchers have dealt with service quality in public services (Bryslund & Curry, 2001); however, studies on service quality delivery in Ghana's

transportation sector are scanty and relatively silent. The shift towards a more customer oriented approach has resulted in a renewed emphasis on public transit service quality (Camen, 2010), an element often overlooked in the past.

Of special interest to this study is to assess the extent to which customers are satisfied with the public transport services delivery by MMT in Cape Coast. Specifically, this study seeks to:

1. examine customer's perception about the state of public transport in Ghana,
2. assess the extent to which customers are satisfied with MMT's public transport service delivery,
3. assess the correlation between customer satisfaction and customer loyalty as in the case of the MMT transport services.

This paper is structured as follows: introduction; literature review; methodology; results and discussion; and conclusion.

Literature review

Snapshot of Public Transport Industry in Ghana

In 1927, the Accra Town Council operated bus services in Accra, Kumasi, Sekondi-Takoradi and Obuasi. Previous Governments established bus service companies, including Omnibus Services Authority (OSA), State Transport company (STC), City Express Services (CES), and recently Metro Mass Transit (MMT or popularly called Metro) Ltd (www.metromass.com). Poor performance of these companies compelled the then government to divest STC and CES and liquidated OSA in the 1990s. To promote efficient public transportation to increase productivity and economic growth, Ghana Private Road Transport Union (GPRTU), and Cooperative Union have operated and continues to operate transport services alongside the formal sector.

The Government of Ghana recognised the need for transportation and infrastructure development required to promote interregional trade, as well as access to health, education and market facilitation in both rural and urban areas in the country (Ghana Poverty Reduction Strategy, 2003), and subsequently introduced MMT. The three bus services provided by the company are: Bus Rapid Transit System - operating only for the congested roads on the main corridors of Accra and Kumasi; Urban Service - operating in any greater urban area connecting central bus terminals with city outskirts and medium-distance transportation to villages in the surrounding of a regional capital; and Rural Bus services - operating low, but frequent, long distance rural bus service on rough roads and long journeys.

Public Perceptions of Transport Services

Perception is defined as the process of noticing and making sense of information (Aliman & Mohamad, 2013). Abane (2011) contended that public transports in Ghana are faced with poor ventilation, dirty bus conditions (interior), and high exposure to road traffic accidents (safety). Public transport is said to be for the disadvantaged as they are compelled to travel by public buses with accompanying challenges in delay and discomfort (Davison & Knowles, 2006), leading to dissatisfaction (Aidoo, Amo-Gyima, & Ackaah, 2013). Services are frequently insufficient to meet demand (Ali, 2010); rains intravenously cripple traffic within the city; poor compliance to road hierarchy, capacity, and service demand; and service discomfort. Service comfort involves the availability of service aesthetics, which include the availability of seats and space (often referred to as passenger density), smooth journeys, the availability of air-conditioners and the condition of the shelters (Litman, 2008). Meanwhile, Budiono (2009) found that comfort of service was one of the top four factors that positively correlated with overall service satisfaction.

A study by Hanson (1980) hinted that men travel on public bus to lesser extent than women. Mathies, Kuhn and Klockner (2002) also found that in Germany, Switzerland and Australia, women use public transport more than men and reversibly use cars less frequently. Eno Transportation Foundation (2007) maintained that women who had unrestricted access to private car persistently preferred the private car mode to public transport, but, again, posited that there is no connection between affluence and car usage. Alpizar, Carlson and Martinsson (2001) found that travel time and travel cost were the most important determinants of choice of transport mode. Gebeyehu and Takano (2007) posited that peripheral zone residents, who were public or private company employees and had a larger family size, had a higher probability of choosing bus over taxi.

The Disability Act 715 (2006) of Ghana stipulates that public transport vehicles, including road transport, must ensure that the needs of the disabled are taken into account in the design, construction and operation of the transportation network. Commercial buses are required to reserve, at minimum, two seats for persons with disabilities (Persons with Disability Act 715, Sections 23-30, 2006); however, that Act has been totally ignored and poorly enforced. Mazulla and Eboli (2006) argue that public transport operators give too much importance to financial gains at the expense of service quality delivery. Whereas Dridi, Mesghouni and Borne (2005) assert that public transport services must follow regular schedules, be safe and rapid, guarantee high service quality, and utilize resources efficiently, Chakwizira, Bikam, Dayomi, and Adeboyejo (2011) contend that timetables are important, and a lack thereof may be construed as breaking the trust between operators and passengers.

Measuring Service Quality

Some researchers have asserted that service is any act or performance one party can offer to another that is essentially intangible and does not result in the ownership of anything (Adrain, 2011; Kotler & Keller, 2013). Whereas Alok (2013) defines service quality as the extent to which the service, the service process and the service organization can satisfy the expectations of the user, Zeithaml, Berry, and Parasuraman (1996) define it as how well the service meets or exceeds the customers' expectations on a consistent basis. This signifies that customers do not evaluate the quality of a product/service solely at one time experience, but upon sustained and continuous usage of the product/service.

According to Cronin and Taylor (1992), the SEVPERF model is a more direct form of measurement technique, which requires customers to rate a provider's (MMT Ltd's) performance, extending from 1 (extremely dissatisfied) to 5 (extremely satisfied) on a 5-point Likert scale. Cronin, Brady and Hult (2000) also assert that SERVPERF model eliminates the need to measure expectation (as proposed in the SERVQUAL model, by Parasuraman, et al., 1985) on the grounds that customer expectation changes when they experience a service and the inclusion of an expectations measure reduces the content and discriminant validity of the measure. The 22 items proposed in SERVPERF model is modified for the study.

The Link among Service Quality, Customer Satisfaction and Customer Loyalty

Brink and Berndt (2005) assert that customers perceive services in terms of the quality of service provided and the satisfaction level attained. Cronin and Taylor (1992) also hinted that customer satisfaction can influence customer loyalty directly, and, again, found that service quality is a vital antecedent of customer satisfaction. Indeed, service providers must provide services that would appeal to customers' behavioral intentions to patronize by ensuring performance quality and conformance quality (Kotler & Keller, 2013). Satisfaction pertains to a holistic evaluation after a service delivery experience, and acts as a consequence of satisfaction with individual attributes (Lai & Chen, 2010).

Service quality and customer satisfaction have been conceptualized as a distinct, but closely related constructs (Siddiqi, 2011). Service quality leads to customer satisfaction (Kassim & Abdullah, 2010). Eboli and Mazzulla (2012) opine that customer satisfaction is one of the determinants that is used to measure quality of service. Kotler and Keller (2013) also argue that marketers must ensure they provide services that meet or beat customers' expectation to get customers satisfied or ever delighted to cause change in behavioral intentions favorably in the firm's brand. Many empirical studies have shown that customer satisfaction secures future revenues (Bolton, 1998; Fornell, 1992), reduces future transactions costs (Reichheld & Sasser, 1990), decreases price elasticity (Anderson, 1996), and minimizes the likelihood of customers defecting if quality falters (Anderson & Sullivan, 1993).

Sum Chau, and Kao (2009) concluded that there is a relationship between service quality and customer loyalty. Jones, Beatty and Mothersbaugh (2002) discovered that there is a positive relationship between service quality and loyalty variables such as repurchase intention, recommendation and resistance to better alternatives. Adrian (2011) reiterated that loyalty involves customers becoming an enthusiastic advocate of a company. Rust, Zahorik and Keiningham (2008) opine that customer satisfaction decides customer loyalty. However, Michael, Christopher, Tzu-Hui, and Michelle (2008) asserted that customer satisfaction is not a guarantee of a repeat patronage (an indicator of customer loyalty) in that satisfied customers sometimes jump ship and the reasons are not always due to customer dissatisfaction; some customers are lost due to indifference, which arises from pure neglect. Conclusively, if marketers provide quality service, customers become satisfied with the service and, consequently, become committed to the experienced brand under consideration.

Methodology

The descriptive research design was adopted for this study. Mark, Philip, and Adrian (2009) opined that descriptive research portrays an accurate profile of persons, events or situations. The target population includes all the 18, 498 regular students (UCC Annual Report, 2014) in the University of Cape Coast, who mostly patronize public transport services, especially on vacations, public holidays and school reopening seasons. Based on the population-sample matrix designed by Kirk (1995), a sample size of 377 was conveniently, but purposively, selected for the study. Despite its limitations, purposive sampling technique appears relevant for the targeted respondents. Supportively, Taylor, Sinha and Ghoshal (2011) posit that purposive sampling technique offers the convenience to the researcher to reach the targeted respondents easily and provide rich source of information for research work.

Githui, Okamura and Nakamura (2010) used a specifically designed questionnaire comprising 25 items, which defined the dimensions of reliability, safety, comfort, affordability and availability of service, to investigate public transport service attributes that influence overall passenger satisfaction and enhance public transport use in Kenya. Modifying their questionnaire design, a specifically designed 30 item questionnaire (5-point Likert scale, rating as 1-1.99=*Strongly disagree*, 2-2.9=*Disagree*, 3-3.99=*Neutral*, 4-4.99=*Agree* and 5-5.99=*Strongly agree*) to measure passengers' perceptions, attitude and behavior was used to collect primary data from students who were queuing for public transportation services at MMT's Cape Coast Terminal. A 100% response rate was recorded. Employing Statistical Package for Social Sciences (SPSS) version 22.0, data was analysed, using descriptive statistics and Pearson's Product Moment Correlation technique.

Results and discussions

The demographic information of respondents is presented in Table 1

Table 1: Demographic information of respondents

	Frequency	Percent (100%)
<i>Sex</i>		
Male	218	57.8
Female	159	42.2
<i>Age range</i>		
15-20 years	63	16.7
21-25 years	194	51.5
26-30 years	89	23.6
31-35 years	29	7.7
36 years and above	2	0.5
<i>Level of tertiary education</i>		
Level 100	139	36.9
Level 200	131	34.7
Level 300	68	18.0
Level 400	39	10.3
<i>Employment status</i>		
Working	13	3.4
Not working	364	96.6
<i>Most preferred Mode of road transport</i>		
Personal vehicle	131	34.7
Private commercial Vehicle	49	13.0
MMT vehicle	197	52.3

Source: Field Survey, 2016

In Table 1, the respondents' demographic information shows that 57.8% of the respondents were male whilst the remaining 42.2% were female. This confirms the conclusion by Hanson (1980), but contradicts that of Mathies, *et al.* (2002). Respondents' ages indicated 21 – 25 years (51%) as forming the majority; 26 - 30 years (23.6%); 15 - 20 years (16.7%); 31 to 36 years (7.7%); and 36 years and above (0.5%). All respondents were pursuing tertiary education, but at different levels, as indicated by Level 100 (36.9%) as forming the majority; Level 200 (34.9%); Level 300 (18.0%); and Level 400 (10.3%). Again, majority of the respondents (96.6%) were unemployed, whilst the

remaining 3.4% were both working and schooling. Additionally, preferred mode of transport recorded (MMT) public transport (52.3%); personal private vehicle (34.7%); and private commercial vehicles (13.0%).

Count				
		Sex distribution of respondents		Total
		Male	Female	
Type of vehicle respondents are likely to choose for transportation services	Personal vehicle	78	53	131
	Private commercial vehicle	25	24	49
	MMT vehicle	115	82	197
Total		218	159	377

Source: Field Survey, 2016

A cross tabulation analysis shown in Table 2 indicates that 197 respondents preferred MMT vehicle for road transport services, of which 115 (58.4%) were male whilst the remaining 82 (41.6%) were female. The 131 respondents who preferred personal private vehicle services, 78 (59.5%) were male and 53 (40.5) were female, and thus contradicts Eno's (2007) study. The 49 respondents who prefer private commercial vehicle 25 (51.0%) were male and 24 (49.0%) were female.

Count				
		Employment status of respondents		Total
		Working	Not working	
Frequency of usage of Metro Mass Transit services	Not at all	0	2	2
	Somewhat often	3	72	75
	Often	4	125	129
	Very often	6	165	171
Total		13	364	377

Source: Field Survey, 2016

A cross tabulation analysis of how employment status matches frequent usage of MMT services, as illustrated in Table 3, revealed that among the 171 respondents who use public transport very often, 165 (96.5%) were unemployed and 6 (3.5%) were employed. Out of 129 respondents who often use MMT services, 125 (96.9%) were unemployed while 6 (3.1%) were employed. 75

respondents who somewhat often patronized the MMT services, 72 (96.0%) were unemployed whilst 3 (4.0%) were employed. Only 2 unemployed respondents do not patronize MMT services.

Count		Sex distribution of respondents		Total
		Male	Female	
Frequency of usage of Metro Mass Transit services	Not at all	2	0	2
	Somewhat often	39	36	75
	Often	71	58	129
	Very often	106	65	171
Total		218	159	377

Source: Field Survey, 2016

Table 4 shows that majority of the respondents use MMT services very often and male dominated with a frequency of 106 whilst 65 were female. Of the 129 respondents who patronize the services of MMT often, 71 (majority) were male and the remaining 58 were female. For those who somewhat often use MMT services, 39 were male whilst 36 were female. These findings contradict Hanson's (1980) finding that men travel on public bus to a lesser extent than women, but supports Mathies et al (2002) study that found that men use public transport frequently in Germany, Switzerland and Australia.

Public Perceptions about the State of Public Transport in Ghana

To examine respondents' perceptions about the state of public transport services in Ghana, the findings, as measured descriptively with mean score and standard deviation, are presented in Table 5.

Table 5: Respondents' perception about public road transport

Perceptual variables (Statements)	N	Mean	Std. Deviation
I believe that public transportation is important for society	377	4.5729	.80597
I believe that public transport adds convenience to their travels	377	2.8806	1.44180
I believe that public transport brings cost economy to people	377	4.4244	.85691
I do not feel discomfort sharing public buses with others	377	2.7454	1.46915
I do not consider public transport as a low class form of travel	377	3.6923	1.44427

I do not mind taking public bus while going to work	377	4.1194	1.13881
I do not find any socio-cultural factors affecting the use of public transport in Ghana	377	3.6499	1.42338
I do not mind sharing public transport with opposite sex	377	4.3767	.87293
I believe that public transport is safer than private transport	377	4.3422	.82652

Source: Field Survey, 2016

As presented in Table 5, respondents agreed (in ascending order) that public transportation is important for society ($M=4.5729$; $SD=0.80597$); public transport brings cost economy to people ($M=4.4244$; $SD=0.85691$); respondents do not mind sharing public transport with the opposite sex ($M=4.3767$; $SD=0.87293$); public transport is safer than private transport ($M=4.3422$; $SD=0.82652$); and, finally, respondents do not mind taking public bus while going to work ($M=4.1194$; $SD=1.13881$). Respondents were neutral regarding their perceptions that public transport is not a low class form of road transport ($M=3.6923$; $SD=1.44427$) and do not find any socio-cultural factors affecting the use of public transport in Ghana ($M=3.6499$; $SD=1.42338$). Again, the respondents disagreed that public transport adds convenience to their travels ($M=2.8806$; $SD=1.44180$), and do not feel discomfort sharing public buses with others ($M=2.7454$; $SD=1.46915$). This supports the view of Corpuz, *et al.* (2006), that car users were concerned with comfort and convenience, associated with shorter travel time and the flexibility of the trip-making.

Quality Service Assessment Results

The study sought to find out the extent to which respondents are satisfied with MMT's quality service delivery. Table 6 shows the state of customer satisfaction regarding the safety-comfort-cleanliness variables.

Table 6: State of satisfaction on safety-comfort-cleanliness

Safety-comfort-cleanliness variables	N	Mean	Std. Deviation
Safety conditions at stops and terminal stations	377	2.7878	1.48666
Safety conditions onboard the vehicle	377	4.3687	.81500
Attitude of the personnel	377	2.6313	1.39314
MMT vehicles, stops and terminal stations' cleanliness	377	1.7347	.91308
Easiness in the embarkment and disembarkment from the vehicles	377	3.0743	1.51053
Deaths and injuries	377	4.4297	.67317
Appearance of MMT staff	377	2.1485	1.19360

Source: Field Survey, 2016

The findings in Table 6 show that respondents were satisfied with the state of deaths and injuries situation at MMT limited ($M=4.4297$; $SD=0.67317$) and the state of safety conditions onboard the MMT's vehicles ($M=4.3687$; $SD=0.81500$). Some respondents were neutral regarding the state of easiness during embarkment and disembarkment from MMT vehicles ($M=3.0743$; $SD=1.51053$). However, some respondents were dissatisfied with the appearance of MMT staff ($M=2.1485$, $SD=1.19360$); attitude of MMT personnel ($M=2.6313$; $SD=1.39314$); and the safety conditions at stop and terminal stations ($M=2.7878$; $SD=1.48666$). Respondents were extremely dissatisfied with the state of MMT's vehicles and stops and terminal stations' cleanliness ($M=1.7347$, $SD=0.91308$). These findings support Budiono's (2009) and Litman's (2008) view that comfort of service correlates with overall service satisfaction.

Table 7: State of satisfaction on information-communication to passengers

Information-communication variables	N	Mean	Std. Deviation
Current information provision about MMT services	377	3.0186	1.41691
MMT's response to passengers complaints and advices	377	2.3077	1.23157

Source: Field Survey, 2016

The findings in Table 7 demonstrate that respondents were dissatisfied with the response rate from MMT to passengers complaints and advices ($M=2.3077$; $SD=1.23157$). Again, some respondents were neutral regarding the state of satisfaction towards the provision of current information about MMT's services by management ($M=3.0186$; $SD=1.41691$). Provision of better information and communication technology (ICT) systems (including timetables, terminal electronic displays, on-board communication, mobile communications and call centres), will improve communication with passengers. This finding supports Chakwizira et al's. (2011) study that found that timetables are important and a lack thereof may be construed as breaking the trust between the operator and passengers.

Table 8: State of satisfaction with accessibility

Accessibility variables	N	Mean	Std. Deviation
Ease of accessibility by elderly and disabled persons	377	1.9841	1.05425
Distance between the ticket selling point and the embarkment point	377	3.5199	1.28006

Source: Field Survey, 2016

The findings in Table 8 show the state of customer satisfaction regarding accessibility of MMT services. Findings suggest that respondents

were extremely dissatisfied with the ease of accessibility by elderly and disabled persons ($M=1.9841$; $SD=1.05425$) and neutral regarding the distance between the ticket selling point and the embarkment point ($M=3.5199$; $SD=1.28006$). The findings on the ease of accessibility by elderly and disabled persons clearly violate the provisions of the Disability Act 715 (2006). This means the objective for creating convenience for the disabled is not supported by MMT operations.

Table 9: State of satisfaction with terminals and stop points performance (Reliability)

Terminals and stop points performance variables	N	Mean	Std. Deviation
Journey run times	377	2.7056	1.36670
Average speed of MMT vehicles	377	3.2361	1.39336
Vehicles delay at stop points	377	2.8806	1.42697
Vehicles load	377	3.4801	1.19852

Source: Field Survey, 2016

Table 9 shows the findings about the state of customer satisfaction with terminal and stop points performance. Respondents were dissatisfied with the state of journey run times ($M=2.7056$; $SD=1.36670$) and the state of vehicle delays at stop points ($M=2.8806$; $SD=1.42697$). However, some respondents were neutral regarding the state of average speed of MMT vehicles ($M=3.2361$, $SD=1.39336$) and the state of vehicle load ($M=3.4801$; $SD=1.19852$). The findings do not support the views of Dridi *et al.* (2005) that public transport services must follow regular schedules and guarantee quality services.

Table 10: State of satisfaction with line performance

Line performance variables	N	Mean	Std. Deviation
Service provision hours	377	3.2891	1.25635
Waiting time for purchase of tickets	377	2.2281	1.26783
Vehicles operating in off-peak periods	377	3.7533	1.05445
Bus lane violation	377	3.7507	1.12345
Coverage of MMT service network	377	3.8276	1.06914
Sufficiency of ticket selling network	377	4.0531	.79382

Source: Field Survey, 2016

The findings on the state of customer satisfaction with line performance, as presented in Table 10, indicate that respondents were satisfied with the state of sufficiency of ticket selling network ($M=4.0531$; $SD=0.79382$), but were neutral regarding the service provision hours ($M=3.2891$; $SD=1.25635$); state of vehicles operating in off-peak periods ($M=3.7533$; $SD=1.05445$); the state of bus lane violation ($M=3.7507$; $SD=1.12345$); and the state of route coverage of MMT service network ($M=3.8276$; $SD=1.06914$). Again, respondents were dissatisfied with waiting time for purchase of tickets ($M=2.2281$; $SD=1.26783$). Concerning the overall level of customer satisfaction, majority of the respondents (29%) were generally dissatisfied; satisfied (28%);

extremely dissatisfied (26%); extremely satisfied (11%); and neutral (6%) with the state of MMT service quality delivery. This finding supports Michael et al. (2008) assertion that customer satisfaction is not a guarantee of a repeat patronage.

The findings, as presented in Table 11, show the relationship (if any) among customer satisfaction regarding service quality and customer loyalty.

Table 11: Correlation matrix

		K1	L1	L2	L3	L4	L5	L6	L7
K1	Pearson Correlation	1							
L1		.090	1						
L2		-.138**	-.004	1					
L3		-.050	-.014	-.100	1				
L4		.099	-.074	.039	.010	1			
L5		-.098	-.026	.066	-.027	-.006	1		
L6		-.184**	-.066	.039	.005	.025	.09	1	
L7		-.062	-.044	-.001	.105*	.009	.08	.06	1
	N	377	377	377	377	377	377	377	377

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

*Correlation is significant at the 0.05 level (2-tailed)

Source: Field Survey, 2016

The relationship between customer satisfaction with service quality at MMT Limited (as measured by K1) and customer loyalty variables (as measured by L1, L2, L3, L4, L5, L6 and L7) was investigated, using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. The findings, as presented in Table 11, indicate that there was a weak, positive correlation between customer satisfaction in terms of service quality (as measured by K1) and customers' recommendation of MMT's services to others (as measured by L1) [$r=0.090$, $n=377$, $p<0.0005$]. It means high level of customer satisfaction with service quality associate high customer recommendations. Additionally, there was a weak, positive correlation between customer satisfaction in terms of service quality (as measured by K1) and customers' having no intention to quit (as measured by L4) [$r=0.099$, $n=377$, $p<0.0005$]. This finding contradicts the views held by Michael, *et al.* (2008) that customer satisfaction is not a guarantee of a repeat patronage.

However, there was a weak, negative correlation between customer satisfaction in terms of service quality (as measured by K1) and state of customer commitment to MMT's services (as measured by L3) [$r=-0.050$, $n=377$, $p<0.0005$]; a weak, negative correlation between customer satisfaction in terms of service quality and the overall customer loyalty of respondents (as measured by L7) [$r=-0.062$, $n=377$, $p<0.0005$]; a weak, negative correlation between customer satisfaction in terms of service quality and the confession that MMT comes into respondents' mind whenever one wants to enjoy quality

transport services (as measured by L5) [$r=-0.098$, $n=377$, $p<0.0005$]; a weak, negative correlation between customer satisfaction in terms of service quality and intention to continuously patronize MMT's services (as measured by L2) [$r=-0.138$, $n=377$, $p<0.0005$]; and, finally, a weak, negative correlation between customer satisfaction in terms of service quality and state of respondents' trust to the MMT's brand (as measured by L6) [$r=-0.184$, $n=377$, $p<0.0005$]. These findings contradict the studies of Jones et al., (2002), and Anderson and Sullivan (1993), but support the conclusions by Michael et al. (2008).

Conclusion

The study sought to examine customer's perception about the state of public transport in Ghana; assess the extent to which customers are satisfied with MMT's public transport service delivery; and further establish the relationship (if any) among service quality, customer satisfaction, and customer loyalty. A quantitative approach, using questionnaires, was adopted to survey 377 regular students from the University of Cape Coast, who mostly patronize public transport services especially on vacations, public holidays and school reopening seasons. The data was analyzed using descriptive statistics and Pearson's Product Moment Correlation Technique. It was found that the respondents' strongest perception about the state of public transportation was its importance to society, and majority of the respondents were generally dissatisfied with the service quality delivery by MMT. The most important finding of the study was the empirical evidence that there was a weak, negative correlation between customer satisfaction in terms of service quality and customer loyalty.

The study makes a significant contribution to literature on both public transport studies and public service quality management knowledge and will benefit public service managers and academics investigating the reliability and value of service quality delivery within public transport services. It also offers a better understanding of the theoretical underpinnings of service quality and customer acceptability of public transport services. For government and key policy makers in Ghana's transportation industry, the study contributes to the practical strategies required to ensure road safety, customer delight and productive marketing practices, including the enforcement of the Disability Act (715) of 2006. The study is innovative from an implementation perspective and will help policy makers to think about long-term strategies towards establishing viable public transport solutions-compliance with the road hierarchy, capacity, and transportation demand.

It is recommended that MMT management focus on quality variables such as safety-comfort-cleanliness; information-communication; accessibility; on terminals and stop points performance; and online performance. MMT's waste management and ICT operations require qualified personnel, proper supervisions and periodic reviews, and/or should be outsourced for cost and operational efficiencies. Physical facilities and layout, journey run times,

waiting time for purchase of tickets, and tickets selling points, must be improved. Staff should be trained on customer relationship management practices to promote efficient service quality delivery, flexibility and reliability. Management must also improve the ergonomics of their vehicles to ensure ease of accessibility by elderly and disabled persons. Designing efficient workable customer loyalty initiatives such as gift cards/certificates, discount over time/volumes of travels and buying forward/pre-purchase will positively create, deepen and sustain the MMT's loyalty base, and further provide marketing information for product improvements based on customers' attitudinal survey.

Though the study was limited to the public transport industry and, specifically, to the Cape Coast Branch of MMT in Ghana, the sample is representative of the population and hence, it is possible to generalise the results to other regions in Ghana. However, the results cannot be generalised to other countries in Sub-Saharan Africa and beyond. Future research should, therefore, replicate the study in other countries in order to confirm the results of the findings. Additional studies could examine a comparative study of service quality and customer acceptability of both private and public transport services as well as a longitudinal study of both public and/or private transport services delivery.

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