

GENDER PERSPECTIVE OF CAMPUS SHUTTLE SERVICE IN GHANA

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ABSTRACT

A cross sectional study of gender perspective of campus shuttle service was carried out using 891 questionnaires administered on students from the three foremost public universities in Ghana. The questionnaires containing gender of respondents and modified SERVQUAL scale were administered through simple random sampling at the designated bus stops in the three universities from 8am-4pm. The results revealed that males patronized shuttle service more than females; male's perceived functional quality differed from female's and The findings of the hypothesis showed that there was a significance gender difference in perceived functional quality.

Keywords: Gender, campus shuttle, SERVQUAL, perceived functional quality

Introduction

Lim, Bennet, and Dagger (2008) opine the importance of socio-demographic characteristics in measuring service quality. In response to that, Kumar and Lim (2008) and Govender (2014) used certain socio-demographic characteristics such as age, gender, educational level in their studies. Gender as one of the most demographic variables meets the basic requirements for successful implementation of segmentation strategies (Meyers-Levy & Sternthal, 1991) because (1) gender is easily identifiable, (2) gender segments are accessible and (3) gender segments are large enough to be profitable (Mokhlis, 2011).

Odufuwa and Otubaga(2012) note that, gender analysis is becoming a major issue in transport sector.

Studies such as Agyeman (2013), Nutsogbodo (2013), Sam, Adu-Boahen and Kissah Korsah (2014) and Ojo, Amoako-Sakyi and Agyeman (2014) in Ghana assessed service quality of public transport. Out of which, only Ojo, et al. (2014) assessed perceived quality of campus shuttle service but did not consider how gender influences perceived functional quality.

Owing to the foregoing, the main objective of the study is to assess gender perspective of campus shuttle service in Ghana using SERVQUAL scale. This is borne by the fact that the way a male passenger perceives service quality may differ from that of females. In order to achieve the above state objective, the following specific objectives were set:

1. To identify the gender difference in the patronage of campus shuttle service;
2. To ascertain the gender difference in perceived quality;
3. To compare the gender difference in perceived functional quality for UCC, KNUST and Legon.

The study was guided by this hypothesis –

Ho: there is a statistically significant difference in males' and females' perceived functional quality.

Literature review

Gender

Gender refers to the economic, social and cultural attributes and opportunities associated with being male or female at a particular point in time (World Health Organization, 2001). Gender refers to the array of socially constructed roles and relationships, personality traits, attitudes, behaviour, values, relative power and influence that society ascribes to the two sexes on a differential basis (Bornstein, 1998, p.25). Gender is relational and refers not simply to women or men but to the relationship between them.

Campus shuttle

Campus shuttle provide a service which uses small buses, medi buses or vans for public transport (Rohani et al., 2012) for shorter trips. Juarez (2011) notes that, there are certain crucial factors influencing campus shuttle bus service. Firstly, the availability of off-campus housing caused by increased in students' population. Moreover, classrooms and halls of residence are wide apart as evident in the three foremost Ghanaian Universities. Lastly, increased frequency and direct routes serving the campus cause university or private entrepreneurs to offer campus shuttle service (Bond & Steiner, 2006). As universities are like towns and cities on their (Norzalwi & Ismail, 2011) they are not immune to the challenges bedeviling major cities. Shuttle bus service is therefore one of the sustainable means of solving transportation problems on university campus (Ojo et al., 2014).

Perceived functional quality

Researches on perceived functional quality are divided into two schools of thoughts: the North America and Nordic Schools of thoughts (Ali, Khan & Rehman, 2012). Furthermore, these two schools of thoughts have generated two groups of models- conceptual models (Marcucci et al., 2007) and analytical models (Eboli & Mazzulla, 2009). The conceptual models have been applied in a whole range of disciplines. The best known and most widely applied conceptual technique in assessing functional quality is the SERVQUAL method (Eboli & Mazzulla, 2007; Marcucci, et al., (2007) which represents North American school of thought (Kang & James, 2004) and it is been debated by many researchers (Berndt, 2009).

SERVQUAL model propounded by Parasuraman et al. (1985, 1988, 1990) is seen as a generic instrument for measuring service quality across different service sectors. SERVQUAL model measures the expectations and perceptions of consumers to arrive at a gap score. The higher the difference between perception and expectation, the better the quality. When expectation exceeds perception then, the service is of poor quality. Conceptual models such as LOGQUAL, SERVPERF, SERVPEX, QUALBUS, ECO-SERF and RAILQUAL are modified SERVQUAL scale owing to some challenges associated with the generic nature of SERVQUAL as a conceptual model (see Ekinci, 2002; Perez et al., 2007)

The analytical model is based on Stated Preference analysis that overcomes some critical factors linked to the use of scales (Marcucci, et al., 2007). These include: psychometric problems, conceptual basis and difficulty in translating evaluations into quantitative measures (Marcucci, et al 2007).

Study area

Three public universities fall under the purview of this study (see Ojo et al., 2014). The University of Cape Coast was established in 1962 out of a dire need for highly qualified and skilled manpower in education. It was established to train graduate teachers for second cycle institutions such as training colleges and technical institutions, a mission that University of Legon and Kwame Nkrumah University of Technology were unequipped to fulfill. As a result of the introduction of new programs the institution now trains educational planners, administrators, agriculturalists, regional planners and health care professionals. The university is located five kilometers west of Cape Coast on a hill overlooking the Atlantic Ocean. It operates on two campuses” the Southern Campus (Old site) and the Northern Campus (New site/science).

The University of Ghana is the oldest and largest universities in Ghana founded in 1948 as the University College of the Gold Coast. It has nearly 40,000 students. Legon is the main site of the University which is about twelve kilometers northeast of the Centre of Accra. The medical school is in Korle Bu with a teaching hospital and secondary campus in the city of Accra. The Kwame Nkrumah University of Science and Technology (KNUST) was established in 1951 and located in Kumasi, the Ashanti Regional capital of Ghana. It is Ghana’s foremost institution for Science and Technology education. The University has a student capacity of nearly 50,000 offering undergraduate and post graduate courses. The main University campus is about seven square miles in area and located about eight miles to the east of Kumasi, the Ashanti Regional capital.

Methodology

This descriptive study was quantitatively carried out with the use of 900 copies of questionnaires administered through a face to face method. Owing to the fact that respondents would have less waiting time, the questionnaires was divided into two parts- socio- demographic characteristics and modified 21-attribute SERVQUAL scale (see Ojo et al., 2014). The SERVQUAL scale was in form a five-point Likert scale (5=strongly agree, 4=agree, 3=neutral, 2=disagree, 1=strongly disagree). 300 copies were served in each of the three universities between November, 2013 and January 2014.

All the 300 questionnaires were usable from UCC, whereas only 296 and 295 were usable from KNUST and Legon respectively. In all, 891 questionnaires were analyzed. The students were randomly accosted at the approved bus stops by these institutions between 8am-4pm (see Ojo et al., 2014). In case of any refusal, the next willing respondents were served copies of questionnaires. Frequencies, percentage and means were used for the analysis using SPSS 21. Moreover, the relationship between independent and dependent variables was established using ANOVA.

Results and discussion

According to Table 1, more than half (55.7%, 51.7%) of the respondents were males in UCC and Legon respectively. The overall statistics further showed that, more than half (51%) of the respondents were males in the three schools. This is contrary to the assertion that, women generally make short distance trip (Nutsugbodo, 2013; Khursid et al., 2012; Kian et al., 2012; Kumar & Muthuoandian, 2012). In conforming the findings in the current study, Spinney and Millward (2011), Alpopi and Manole (2012) and Shaaban and Khalil (2013) assert that, males generally travel more than females irrespective of distance by public transport.

In UCC, males' expectation and perception mean scores (3.44, 3.14) were moderate respectively eventually revealing a negative gapscore (-0.30). Meanwhile, female's expectations mean score was very good (3.51) whereas the perception mean score was moderate (3.08). This eventually influenced a higher negative gap score (-0.43) as against males' (-.30) (see Table 1).

Furthermore, the expectations mean scores for both the males and females were very good (3.60, 3.79) respectively for KNUST whereas the perception mean scores for both were moderate (3.25, 3.21). This invariably influenced a negative gap scores, with males having a better perceived quality (-0.35) as against females (-0.58). For Legon, males had a better perception mean score (3.52) culminating into a positive gap score (0.08). Incidentally, there was no gap score for females indicating neutral perceived quality.

According to Table 1, the overall analysis showed that both males and females had very good expectation mean scores (3.52, 3.60) respectively. Whereas, the perception mean scores were moderate. Eventually, males had better perceived quality (-0.24) despite the negative gap score when compared with that of females. From the forgoing, males had better perceived quality. Mokhis (2011) asserts a conflicting result in assessing the effects of gender on customer perceived quality in the marketing literature. For instance, Kandampully, Juwaheer, and Hu (2011) indicates that, female customers tend to rate service quality lower when comparison is made for both. Contrarily, Govender's (2014) reveals that, females' perceived quality was more favourably than males.

Hypothesis: *There is a statistically significant difference in males' and females' perceived functional quality.*

A one-way between-groups analysis of variance was conducted to explore the gender differences in perceived functional quality between. Gender was divided into two (male and female) whereas perceived functional quality was grouped into (expectation, perception and gap scores).

From Table 2, there was a significant difference in the expectation mean scores: [F(1, 877)=5.69, P=0.017) for gender . To determine the effect size between the differences of the mean scores for ANOVA, Eta squared was calculated by using the formula:

$$\text{Eta squared} = \frac{\text{sum of squares between groups}}{\text{Total sum of squares}}$$
$$\text{Eta square} = \frac{2.95}{\quad} = 0.01$$

457.301

Despite the significant difference in perception mean scores, the Eta squared statistics (0.01) indicating a small effect (Cohen, 1988, p. 284-287). Moreover, there was no significant differences in perception mean scores and gap scores for gender.

Conclusion and recommendations

More males respondents were recorded in the study as confirmed from literature that irrespective of distance males travel more than females (Spinney and Millward, 2011). Incidentally, more females travel by shuttle bus in KNUST against more males traveling in UCC and Legon. This is in congruent with studies such as Nutsogbodo (2013). The two genders revealed negative gap scores in all the three schools saving males in Legon indicating neutral perceived functional quality. Overall males had better perceived functional quality, which confirms Kandampully, Juwaheer, and Hu's (2011) study.

Table 1: Gender and Perceived functional quality

University	Gender	Frequency	Percentage	Perceived functional quality		
				Expectation	Perception	Gap score
UCC	Male	167	55.7	3.44	3.14	-0.30
	Female	133	44.3	3.51	3.08	-0.43
KNUST	Male	141	47	3.60	3.25	-0.35
	Female	155	53	3.79	3.21	-0.58
LEGON	Male	145	48.3	3.44	3.52	0.08
	Female	150	51.7	3.48	3.48	0
Total	Male	454	51	3.52	3.28	-0.24
	Female	437	49	3.60	3.26	-0.34

Source: Fieldwork, 2014.

Table 2: ANOVA for gender

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
EXPECTATIONS	Between Groups	2.950	1	2.950	5.694	.017
	Within Groups	454.359	877	.518		
	Total	457.309	878			
PERCEPTION	Between Groups	.269	1	.269	.635	.426
	Within Groups	369.683	873	.423		
	Total	369.952	874			
VAR00004	Between Groups	.174	1	.174	.024	.876
	Within Groups	6203.385	872	7.114		
	Total	6203.558	873			

Source: fieldwork, 2014.

The analysis of the hypothesis revealed that there is a significant difference between males and females expectation mean scores. This means that expectation influences perceived functional quality.

The management of the shuttle bus service should work on all the dimensions revealing poor perceived quality as the students had higher expectations than what they received. Moreover, the differences in gender perceived functional quality should be a yardstick to measure shuttle service. This is borne by the fact that, males' expectations and perceptions differ from females'.

Further research

As being espoused earlier on in this study, there are a number of socio-demographic characteristics such as age, income, places of residence that influenced perceived functional quality. Therefore, researches could be carried out in this regard.

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