The Impact of Transportation Service Quality on Customer Satisfaction: Evidence from Amhara Region, Ethiopia

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Abstract: The main objective of this study was to assess the impact of transportation service quality on customer satisfaction; in case of Debre Markos city. To achieve the objective of this study, data was collected through close-ended and open-ended questionnaires from 320 respondents who are Bajaj customers. Stratified random sampling was employed to categorize Bajaj associations into ten strata according to their beginning terminals and convenience sampling method was used to select sample population from each strata. Primary and secondary data were used for this study and quantitative and qualitative method also employed. This study was undertaken in one year and hence, used Cross-sectional method. This study has used transportation service quality dimensions like reliability, security, comfort, safety and convenience as independent variables and customer satisfaction as dependent variable. Data collected by using schedules were analyzed by using statistical analysis such as descriptive and inferential analysis. Descriptive statistic such as frequency, percentage, mean, standard deviation and inferential statistic such as correlation and multiple linear regressions were calculated by Statistical Package for Social Science (SPSS) version 20. The correlation result revealed that there is a significant relationship between independent variables and dependent variable. The result from regression analysis indicates that reliability, security, comfort, safety and convenience have a significant effect on customer satisfaction. The finding revealed that Bajaj customers are moderately satisfied with the current service supply. Recommendations for improvement in service quality resulting in customer satisfaction have been made.

Keywords: Reliability, Security, Comfort, Safety, Convenience, Customer Satisfaction, Bajaj Transport

1. Background of the Study

In a highly competitive environment, virtually all companies are forced to be more customers oriented. It is generally agreed that the level of customer satisfaction determines repeat sales, word-of-mouth recommendations, and customer loyalty. Superior service quality has become a major differentiator in producing customer satisfaction, and successful quality management is recognized as the most powerful competitive weapon that many leading service organizations possess [1].

According to [2], service quality is the assessment of the customer to the superiority or overall service excellence. Therefore, the quality of land transport services is an overall passenger evaluation on the performance of public transport. The higher the public transport service performance, the more positive the perception of passengers on the quality of service from public transport services and vice versa.

Service quality has the following five dimensions; The physical facilities, equipment, and the appearance of the staff (Tangibles), the dependability and accuracy of the service provider (Reliability), the ability to know and willingness to cater to customer needs (Responsiveness), the ability of the staff to install confidence and trust in the company (Assurance) and the ability of the staff to provide a caring service to customers (Empathy), [3].

Customer satisfaction is the consumer feeling or attitude toward a service or product recently used [4]. Satisfaction implies that there is a positive feeling created in a customer or recipient of a service. As a matter of fact, such feeling is induced by satisfied customer expectations and successful supplier performance. A feeling of excitement or dissatisfaction is seen whenever the customer expectations,

and received goods or services are at the same level, or the goods fall higher or lower than the customer expectation [5].

Transportation is the movement of people and goods from one place to the other. It is a means by which goods (raw material, production equipment, operating inventories, semi-finished goods and finished goods) as well as people are able to get to or be made available where they are needed for commercials or non-commercial purposes, as at when desired. [6].

The quality of transport service can be measured by Reliability (providing a reliable service to the customers), convenience (accessibility of the service, waiting time, ease of payment), safety (driving standards of the drivers, the conditions of the vehicles, overloading), security (secured voyage without robbery) and finally comfort (availability of good seats, ventilation systems), [7].

As a public service provider, Debre Markos city bus has its own contribution to address the transport demands of the customers. The Road transport bureau is also facilitating private vehicle owners to provide service to the public like Bajaj, minibus and Damas. The demand for transport service, however, has been increasing from time to time. The supply of transport services could not meet the demand of the customers. So, in this study the researcher intends to examine the impact of transportation service quality on customer satisfaction in case of Bajajs transport services in Debre Markos City.

2. Statement of the Problem

Being historical place and the Zonal administration of East Gojjam Zone gives an opportunity for the city to be visited by people from different woredas of the zone, the region and from different areas of the countries for business, recreational and other purposes. This shows high movement of people in the city which needs a fast transportation system. But recently it is seen that the availability of current transportation could not be able to accommodate the increasing number of population let alone for those peoples. To accommodate the increasing number of passengers, the transport service is expected to expand in parallel. There are different transportation choices to the public given by the government itself and also some private vehicle owners participating in the public transportation market.

According to preliminary assessment in the study area, even though different public and private vehicle owners participating in public transportation market, the need of the public is still not satisfied with the current transportation service. Those problems encountered in the study area are access indicates there is a problem to get transport service especially during rush hours, safety problem because mostly the Bajaj drivers are seen driving under the influence of chat; this highly endangers the life of the passengers. And also even if the drivers do hold the virtues of a perfect driver sometimes the state of many Bajajs in relation to the proper timely maintenance head lights, indicator lights, rain wipers and the like is not that much satisfactory. Another is security

becomes an issue while using a Bajaj service in the city especially at night. Security sometimes maybe used interchangeably used with safety. If it causes life threatening circumstances like robbers who at night became active, it is about the security of the passengers. By taking into account the above major problems, the researchers organized those factors that affect customer's satisfaction in transportation services quality into five major factors: reliability, security, comfort, safety and convenience factors.

There is no pre conducted research on the study area regarding the impact of transportation Service quality on customer satisfaction by taking variables such as, reliability, security, comfort, safety and convenience transportation service quality dimensions. By taking these gaps into consideration the researchers intends to assess the Impact of Transportation Service Quality on Customer Satisfaction in case of Debre Markos City.

3. Objectives of the Study

The overall objective of this study is to assess the impact of transportation service quality on customer satisfaction: in case of Debre Markos city. The specific objectives of the study include:

To examine the relationship between the transportation service quality dimensions (reliability, convenience, safety security, comfort) and customer Satisfaction.

To measure the level of general satisfaction of the Bajaj users.

To identify ways to improve the current problems regarding Bajaj transport service.

4. Materials and Methods

This study adopted mixed methods design in which quantitative and qualitative approaches were simultaneously used. Of the several techniques used for data collection a survey was employed, as the most appropriate technique to gather data for this study. The data were obtained by using a schedule administered to a sample; these data are standardized, allowing easy comparison. The research design is cross sectional when we see in time aspect. The study is about assessing the impacts of transportation services quality on customer's satisfaction. In order to meet this objective, descriptive research was employed. Primary data was collected through schedule; which comprises both open ended and close ended questions that was filled up by recruited and trained enumerators under the close supervision of the researchers. Secondary data was obtained from various sources such as reports of bureau of trade and industry at different levels, previous research findings, and other published and unpublished materials, that have relevance with the research topic.

The schedule were designed firstly in English version and translated into Amharic. The translation of schedule makes the respondent familiar with the concept as well as easy understanding. Items in the questionnaire were checked for

the reliability using Cronbach's alpha. Cronbach's alpha values for all items under each constructs were checked, minimum of 0.749 were obtained, and thus the literature considers this value acceptable. The survey instrument was pre-tested on some bajaj transport users for clarity, and questions were matched with the appropriate factors. Modifications were made on the pre- test results. The instrument was also checked for its validity based on expert judgment.

Variables in the study were measured by using a five- point Likert – type scale ranging from strongly disagree (1) to strongly agree (5). For the analysis, Multiple Linear Regression Analysis method was used to test the hypothesized relationships between customer's satisfaction and transport services quality. The assumptions of multiple regressions such as linearity, independence of residuals, and absence of Multicollinearity [8] were checked before running the regression models.

5. Results and Discussion

To achieve the objective of the research, 344 sample respondents of Bajaj users of customers were selected by using [9] infinite sample size determination formula. A total of 344 questioners were distributed to the potential respondents and a total of 320 were completed properly and were used for data interpretation. Out of this, 10 sets of questioners were considered unusable because they were not properly filled by the enumerators, while the reaming 14 of the questioners were not filled totally because of unwillingness of the customers. Therefore, only 320 usable sets of collected questioners were used for the data analysis. The response rate was (93.0232percent). This section starts with description of sample respondents and descriptive analysis of the impacts of transportation services quality on customer satisfaction. It is followed by the regression analysis with the aim of finding out the relationship between the dependent and independent variables.

5.1. Characteristics of Sample Respondents

The majority of Bajaj user customers are males that constitute 163 (50.937 percent) and the remaining 157 are females (49.062 percent) out of the total 320 respondents. This could be attributed to the fact that majority of respondents to the questionnaire were males. With regard to age, those in the category of 26-35 years are the majority of Bajaj customers in Debre Markos city that account for 138 respondents (43.125 percent) followed 15- 25 years, which constitutes 84 (26.25 percent) respondents. Respondents in the category of 36-45 years rank third, which contain 63 respondents (19.687 percent) followed by 35 (10.937 percent) with the age category of 46 years and above. From the respondents of Bajaj customers, the largest number contains 138 (43.125%) that age between 26-35 years and those above the age 46 contains the least in number which are 35 (10.937%).

Regarding the level of formal education, among the sample Bajaj user customers, 155 (48.437 percent) were first degree holder, followed by 70 (21.875 percent) were hold diploma and 51(15.937 percent) are hold a post graduate degree. Out of 320 overall respondents, 44 (13.75 percent) are with primary level of education.

As far as the occupational status of respondents are concerned, government employees hold 146 (45.625 percent) of the total 320 respondents, followed by 70 respondents (21.875 percent) who work under private companies. The third in number of respondents that account 62 (19.375 percent) are students and the forth in number is 32 (10 percent) that are self-employed. The least number of Bajaj customers are those who are retired which constitute 10 (3.125 percent) of the total sample respondents. Then it is possible to say that the majority of Bajaj taxi user customers are government employees.

With regard to Marital status, 171 (53.437 percent), respondents were married 132 (41.25 percent) are single and those that are separated/divorced constitute 9 (2.812 percent) from the total respondents of 320. Finally 8 (2.5 percent) of the overall respondents were widowed background.

From the sample respondents 128 (40 present) of the total household members are between3-4, while 100 (31.25 percent) of the household members were between 5 -7, 81 (25.312 percent) and 11(3.437 percent) were between the category of 1-2 and above 7 respectively.

***Table 1.** Characteristics of Respondents.*

Characteristics	Items	Frequency(n= 320)	Percentage	Cumulative Percentage
Sex	Male	163	50.937	50.937
	Female	157	49.062	100.0
Age	15-25 years	84	26.25	26.25
	26-35 years	138	43.125	69.375
	36-45 years	63	19.687	89.062
	Above 46 years	35	10.937	100
Levels of Education	12 complete and below	44	13.75	13.75
	Diploma	70	21.875	35.625
	Degree	155	48.437	84.062
	Above degree	51	15.937	100
Occupation	Student	62	19.375	19.375
	Government employee	146	45.625	65
	Private employee	70	21.875	86.875
	Self-employee	32	10	96.875

Characteristics	Items	Frequency(n= 320)	Percentage	Cumulative Percentage
Marital status	Retired	10	3.125	100.0
	Single	132	41.25	41.25
	Married	171	53.437	94.687
	Separated/divorced	9	2.812	97.499
	Widowed	8	2.5	100.0
Number of Family	1-2	81	25.312	25.312
	3-4	128	40	65.312
	5-7	100	31.25	96.562
	Above 7	11	3.437	100.0

Source: Survey questionnaire, 2018.

Table 2. Further Characteristics of Respondents.

Characteristics	Items	Frequency(n= 320)	Percentage	Cumulative Percentage
Why do you choose Bajaj transport?	Easily available	96	30	30
	Provides fast transport system	123	38.437	68.437
	It is cheap	20	6.25	74.687
	It is comfortable	61	19.062	93.749
	Other reasons	20	6.25	100.0
Where do you travel with a Bajaj?	School	45	14.062	14.062
	Work	158	49.375	63.437
	Other places	117	36.562	100.0
Based on the type of distance, which type of distance do you use?	Short distance	75	23.437	23.437
	Medium distance	195	60.937	84.374
	Long distance	50	15.625	100.0
For how long have you been using Bajaj?	1-3 years	65	20.312	20.312
	4-6 years	143	44.687	64.999
	Above 7 years	112	35	100.0
How frequently do you use Bajaj transport?	2-3 times a day	193	60.312	60.312
	4-6 times a day	102	31.875	92.196
	More than 6 times	25	7.812	100.0
How long do you have to wait for a Bajaj?	1-4 minutes	36	11.25	11.25
	5-10 minutes	144	45	56.25
	11-20 minutes	63	19.687	75.937
	Above 20 minutes	77	24.062	100.0

Source: Survey questionnaire, 2018.

With regard to the reasons that customers choose to use Bajaj transport, 123 (38.437 percent) of the respondents replied that they get fast transportation system, 96 (30 percent) of the respondents replied that Bajaj transport services are easily available in the times they want them, 61(19.062 percent) of the customers replied that the reason they choose Bajaj is that it is comfortable, 20(6.25 percent), of the customers choose Bajaj because it is cheap and the rest 20 (6.25 percent), of the respondents were gave their other reasons they use Bajaj like there is no other transportation system better than Bajaj in Debre Markos city.

Regarding the places where customers travel, the majority 158 (49.375 percent), were used Bajaj to go to work, 117 (36.562 percent) for other personal affairs and the rest 45 (14.062 percent) use Bajaj to go to school.

With regard to the distance they travel, 195 (60.937 percent) of the customers use Bajaj to travel medium distance, 75 (23. 437 percent), of them use short distance and 50 (15.625 percent), of the customers were travel long distances.

Regarding the year they have been using Bajaj, 143 (44.687 percent) of the respondents are within the range of 4-6 years, 112 (35 percent), of the respondents are within the range of the year 7 and above, the rest 65 (20.312 percent), of

them are within the range of 1-3 years.

With regard to the frequency they traveling per day, 193 (60.312 percent), of the respondents were use Bajaj 2-3 times per day, 102(31.875 percent), of the respondents use Bajaj 4-6 times per day and finally 25(7.812 percent) were use Bajaj more than 6 times a day.

Regarding the waiting time, 144 (45 percent), of them answered they waited 5-10 minutes to get a Bajaj service, 77 of the respondents (24.062 percent) replied that they waited above 20 minutes, 63 of the respondents (19.687 percent) answered they waited 11-20 minutes and 36 of them (11. 25 percent) replied they waited 1-4 minutes to get a Bajaj service.

5.2. Descriptive Analysis of the Study Variables

This part of the analysis is made based on survey schedule gathered from 320 Bajaj transport users' in Debre Markos City using 5-point Likert's scale. The study has five independent variables: Reliability dimension, Security dimension, comfort, safety and Convenience dimension; and a customer's satisfaction as a dependent variable. For a consistent interpretation of descriptive analysis, the following criterion is used.

***Table 3.** Five-Scaled Likert's Criterion.*

No.	Mean Range	Response Options
1	[1.00, 1.80)	Strongly Disagree
2	[1.80, 2.60)	Disagree
3	[2.60, 3.40)	Neutral
4	[3.40, 4.20)	Agree
5	[4.20, 5.00]	Strongly Agree

Source: [10].

***Table 4.** Descriptive Statistics on Reliability dimension.*

Scale Items	Statistics	
	Mean	Std. Deviation
Bajajs are available in time	2.67	1.153
Bajajs are available in every part of the city	2.42	1.063
Bajajs give an extended service (Weekends, Night times & holidays)	1.96	.972
Bajaj stations are available in the city.	3.27	1.160
There is enough number of Bajajs in the city	2.95	1.292

Source: Survey Questionnaire, 2018.

As it can be seen in table above, the item that Bajajs are available in time has a mean score of 2.67 which indicates the customer's neutral response to the availability of Bajajs in time. They did not indicate their level of agreement or disagreement. The second item of reliability dimension of transportation service quality has a mean score of 2.42. This shows that Bajajs are not available in every part of the city. This may be due to the unfair allocation of routes by the city road transport bureau. The third item of reliability dimension of transportation service quality has a mean score of 1.96. This signifies that almost all respondents disagree with the statement that all the Bajajs give an extended service i.e. night times, weekends and holidays. This shows that Bajajs service is limited. The fourth and the fifth item of reliability dimension have a mean score of 3.27 and 2.95 respectively. This means customers responded a neutral response regarding the availability of Bajaj stations in the city and the numbers of Bajajs are enough in the city.

***Table 5.** Descriptive Statistics on Security dimension.*

Scale Items	Statistics	
	Mean	Std. Deviation
Bajajs are free from violent robbery during night travel	2.29	1.007
Bajaj terminals are safe from crime	2.39	1.012
The Bajaj drivers are not involved in criminal activities	2.94	1.058
Bajajs give secured service to their customers	2.74	1.088
Bajaj drivers are friendly and disciplined	2.33	1.070

Source: Survey Questionnaire, 2018.

As it can be seen from the above table, respondents' perception level indicates in disagreement of three items. i.e., Bajajs are free from violent robbery during night travel, Bajaj terminals are safe from crime and Bajaj drivers are friendly and disciplined. These shows that there is a security problem during night travel and also that Bajaj terminal are not safe from crime. And also customers think that the Bajaj drivers are poorly disciplined. So customers feel in secured with the three items of security. On the other hand, the customers' responses were neutral to these items: the Bajaj drivers are involved in criminal activities, and Bajajs give secured service to their customers with mean score of 2.94 and 2.74 respectively. That is, customers did not indicate their agreement or disagreement on these two items of security.

***Table 6.** Descriptive Statistics on Comfort dimension.*

Scale Items	Statistics	
	Mean	Std. Deviation
The Bajajs are in a good standard of cleanliness.	3.03	1.153
There are available good seats in the Bajaj.	3.28	1.207
The Bajaj seats are comfortable.	3.46	1.068
Bajajs carry as per the specified capacity.	2.77	1.189
A Bajaj journey is comfortable for any type of climate. (Sun, rain, wind).	2.77	1.192

Source: Survey Questionnaire, 2018.

As shown in the table above, comfort dimension of transportation service quality's perception level was assessed by five measurement items, which indicates a neutral response on all except for item number three. For the four items customers did not indicate their disagreement and agreement. But still they use the service. The third item

shows customers agreement on that Bajajs seats are comfortable with the mean score of 3.46. This implies that

customers are comfortable with Bajaj seats.

***Table 7.** Descriptive Statistics on safety dimension.*

Scale Items	Statistics	
	Mean	Std. Deviation
The Bajajs are in a good condition (good state of repair & maintenance, good lighting at night).	2.65	1.137
The Bajaj drivers are qualified to drive.	2.64	1.083
Bajaj drivers follow traffic rules.	2.37	1.107
Bajaj drivers drive at a safe speed.	2.39	1.020
The Bajaj drivers drive without the influence of any other drugs. (Alcohol, chat).	2.35	.947

Source: Survey Questionnaire, 2018.

As can be seen from the above table, customers respond with disagreement of three items describing customer's perception level of Bajaj safety, i.e. Bajaj drivers follow traffic rules, Bajaj drivers drive at a safe speed and Bajaj drivers drive without the influence of any other drugs (Alcohol, chat). This indicates that customers don't feel safe during their journey in a Bajaj. On the other hand, the

customers responses to the first two items, the Bajajs are in a good condition (good state of repair & maintenance, good lighting at night) and the Bajaj drivers are qualified to drive with mean score of 2.65 and 2.64 respectively. That is customers did not indicate their level of agreement or disagreement.

***Table 8.** Descriptive Statistics on Convenience dimension.*

Scale Items	Statistics	
	Mean	Std. Deviation
Bajaj prices are affordable.	3.17	1.221
Route/directions information is visible on Bajajs.	3.04	1247
Tariff information is visible on the Bajajs.	2.27	1.091
Bajajs give frequent service so that waiting time is shorter.	2.32	1.157
Bajaj stops & stations are near where customers live.	2.82	1.241

Source: Survey Questionnaire, 2018.

As shown in above table, from the above five items describing convenience dimension of Bajaj transport service quality, customers respond was disagreement with two items. These disagreements include availability of tariff information on the Bajajs and Bajajs give frequent service so that waiting time is shorter. This shows that Bajaj drivers don't make the tariff given by the road transport bureau visible on their Bajaj which is against the law and must need control and the second item shows that customers wait longer time to get a Bajaj because they don't give frequent service to the customer. On

the other hand, customers perception level shows for the items that states the affordability of Bajaj prices and availability of route information on the Bajajs with mean scores 3.17 and 3.04 respectively. Moreover, respondents were neutral on the item stating if Bajaj stops and stations are near where customers live with mean score of 2.82.

The dependent variable in this study is Customer satisfaction for Bajaj transport services users which is measured in five point likert scale and expected to be affected by explanatory variables.

***Table 9.** Descriptive Statistics on Customer satisfaction.*

Scale Items	Statistics	
	Mean	Std. Deviation
I am satisfied with the price I pay for a Bajaj is affordable.	2.79	1.160
I am satisfied with every journey I made with a Bajaj.	3.22	1.151
I am satisfied that Bajajs always exceed in my expectation while offering me the service.	2.88	1.126
I am satisfied that Bajaj stops are near to my home.	2.51	1.084
I am satisfied with the Bajajs complete range of service.	2.81	1.201

Source: Survey Questionnaire, 2018.

The survey result reveals that, customer satisfaction toward Bajaj transport service quality with the four items response which is neutral and one item i.e. the fourth item has a disagree response with mean score of 2.51. This indicates that majority of customers responded a neutral response. This means they did not indicate their level of

agreement or disagreement on the four items of customer satisfaction but still use the service. A neutral response means undecided, meaning customers are neither satisfied nor dissatisfied. They just simply use the service because they don't have another better choice.

Table 10. *Standards of a Bajaj service.*

No.	Alternative choices	Frequency	Percentage
1	Very good	35	10.937
2	Good	99	30.937
3	Moderate	129	40.312
4	Bad	36	11.25
5	Very bad	21	6.562

Source: Survey questionnaire, 2018.

Concerning the rate of the service provided by the Bajaj, 129 (40.312 percent) of the respondents answered the services given by the Bajaj are moderate, 99 (30.937 percent) answered that it is a good service, 35 (10.937 percent) of them answered very good, 36 (11.25 percent) were responded that bad and 21 (6.562 percent) of them respond that very bad. This shows the majority of the respondents rate Bajaj services as moderate. Customers were also asked to give reason why they said "bad" or "very bad". The main reasons were as follows:

1. Shortage of Bajaj in the city
2. Security problems during night travel
3. Undisciplined Bajaj drivers
4. Long waiting times to get a Bajaj service
5. Bajaj stops and stations are far from customers live
6. Undisciplined queues in Bajaj stations
7. Bajajs are not equally distributed in the city.

5.3. Results of Inferential Statistics

In this section, the results of inferential statistics are presented. In order to address the objectives of the study, Pearson's Product Moment Correlation Coefficient and regression analyses were performed. With the aid of these statistical techniques, conclusions are drawn and decisions are made with respect to the research hypothesis.

Table 11. *Rule of Thumb for about the Strength of Correlation of Coefficients.*

Range of Coefficient Description of Strength	Range of Coefficient Description of Strength
±.81 to ±1.00	Very strong
±.61 to ±.80	Strong
±.41 to ±.60	Moderate
±.21 to ±.40	Weak
±.00 to ±.20	None

Source: [11].

5.3.1. Correlation Coefficient

Table 12. *The Relationship between Independent Variables and customers satisfaction.*

Customer Satisfaction		
Reliability	Pearson Correlation	.580**
	Sig. (2-tailed)	.000
	N	320
Security	Pearson Correlation	.438**
	Sig. (2-tailed)	.000
	N	320
Comfort	Pearson Correlation	.507**
	Sig. (2-tailed)	.000
	N	320
Safety	Pearson Correlation	.634**
	Sig. (2-tailed)	.000
	N	320
Convenience	Pearson Correlation	.689**
	Sig. (2-tailed)	.000
	N	320

**. Correlation is significant at the 0.01 level (2-tailed).
Source: SPSS Output of Survey Data, 2018.

As it is clearly indicated in the table 12, the highest correlation (i.e. 689) is between convenience and customer satisfaction which is significant at the 0.01 level (P<0.01). According to [11], from table 12, convenience and customer satisfaction have a strong correlation between them. The next highest correlation.634 is between safety and customer satisfaction which is significant at 0.01 level (P<0.01), which again have a strong correlation according to table 12. The third correlation is.580 is between reliability and customer satisfaction which is significant at 0.01 level (P<0.01). According to [11], they have moderate correlation between them. Then it is followed by comfort (.507) and security (.438). According to the rule of thumb from table 12, both have moderate correlations, which are statistically significant

at 99 percent confidence level. This implies that at a 1percent level of significance it was found that the convenience, safety, reliability, comfort and security have a significant relationship with customer satisfaction in the study area.

5.3.2. Regression Analysis of the Study

Multiple regression analysis is used because there are two or more independent variables that are hypothesized to influence one or more dependent variables (Kothari, 2004). Regression analysis can determine how much of the variation in the dependent variable can be explained by the independent variables. That is, the strength of the relationship. In regression analysis this is measured by Adjusted R Square, R^2. Generally, the study tested four major assumptions such as Normality, Multicollinearity, Linearity and Homoscedasticity that must be fulfilled to analyze data using multiple linear regression m o d e l s. Since all the four assumptions were not violated, the researcher examined the data collected by the schedule using multiple regression models as follow.

***Table 13.** ANOVA (Analysis of Variance).*

ANOVAa						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	163.263	5	32.653	120.920	.000b
	Residual	95.592	354	.270		
	Total	258.855	359			

a. Dependent Variable: customer satisfaction
b. Predictors: (Constant), Convenience, Security, Comfort, Reliability, Safety
Source: SPSS Output of Survey Data, 2018.

***Table 14.** Model Summary.*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.623a	.541	.521	.502965

Predictors: (Constant), Convenience, Security, Comfort, Reliability, Safety
b. Dependent Variable: customers satisfaction
Source: SPSS Output of Survey Data, 2018.

From table 14 above, "R" has a score of.623. It is a multiple correlation coefficient between dependent and independent variables of the study. "R" represents the value of the multiple correlation coefficients between the predictors and the outcome [12]. In order to analyze the impact of transportation service quality on customer satisfaction, the multiple linear regressions has been employed and the results are presented in Table 14. The transportation service quality dimensions derived from exploratory factor analysis are considered as independent variables and customer satisfaction is considered as dependent variable. The results show that the coefficient of multiple determinations (R_2) is.541 and adjusted R_2 is.521 indicating the regression model is good fit. It reveals that about 54.1 per cent of the variation in dependent variable (customer's satisfaction for bajaj transport users) is explained by the independent variables (transport services quality dimensions).

***Table 15.** Coefficients' Table on Multiple Regression of the Research Model Coefficientsa.*

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	β			Tolerance	VIF
(Constant)	-.245	.144		-1.699	.090		
Reliability	.276	.042	.251	6.503	.000	.699	1.430
Security	.136	.052	.098	2.624	.009	.750	1.333
Comfort	.118	.042	.112	2.850	.005	.674	1.484
Safety	.279	.050	.247	5.565	.000	.531	1.883
Convenience	.350	.047	.333	7.526	.000	.534	1.871

a. Dependent Variable: customer satisfaction
Source: SPSS Output of Survey Data, 2018.

Table 15 further shows that, all the explanatory variables included in this study significantly explain the variation of the dependent variable at 99 percent confidence level. The standardized beta coefficient column shows the contribution that an individual variable makes to the model. Accordingly, the most contributing factors for customer's satisfaction in transport service quality are Convenience with beta value of.333 followed by Safety with the value of .247.

6. Conclusion and Recommendation

The purpose of this study was to assess the impact of transportation service quality on customer satisfaction using quality dimensions of transportation services as parameters. As depicted by the results of descriptive statistics, customer's satisfaction in the study area is affected by reliability, security, comfort, safety and convenience transportation

services quality dimensions.

As it is indicated by the regression analysis, all the Bajaj service quality dimensions have a significant effect on customer satisfaction. The finding of the research showed that convenience dimension contributed to the largest impact in gaining customer satisfaction as compared to the other Bajaj service quality dimensions and followed by reliability and safety dimension was the influential predictor of customer satisfaction. According to results of the study, comfort dimension of Bajaj service quality was the fourth influential factor having an impact on customer satisfaction of Bajaj users. Finally the regression result of the study showed that security dimension of Bajaj service quality brought the least impact or contribution on to the customer satisfaction of Bajaj users.

Based on the results of regression analysis, reliability, security, comforts, safety and convenience the transportation services quality dimensions is the independent variables that have statistically significant effect on customer's satisfaction. The result shows that, convenience takes the highest beta value in relation to customers satisfaction followed by safety. Reliability, comforts, and security factors stood at third, fourth and fifth influential factors respectively. The ANOVA test that produced a P-value of 0.000 which is below the alpha level, i.e. 0.05 indicates the regression model fit.

The study suggests that Debre Mrkos road transport bureau should start to pay attention to increase the Bajaj transport supply due to high number of travel demand especially in peak hours. Despite the availability of service in many areas, the quality is moderate. Meaning the service is not that much satisfactory. Thus, to improve the quality, frequency of the service should be increased in different areas. Besides, some links are missing along the Bajaj route for which appropriate roads can be selected and upgraded into new routes. So the bureau should also seek methods to improve timely arrival at the destination such as increase the frequency of service on each route, during weekends, evenings and holidays. The bureau needs to have controlling mechanisms regarding the safety travel of the customers putting traffic polices in every station that watches over the drivers qualification to drive, their speed limit and whether they respect traffic rules or not.

When service quality is analyzed at an attribute level, it is revealed that security is very important. One way to increase security in Bajaj transport is to limit the opportunity for theft and other criminal activities in the Bajaj especially during night times. Because customers responded that there is robbery (violent sometimes) during night travel and also Bajaj terminals are not safe from criminal activities. To control this criminal activities the bureau should launch an initiative that aims to disrupt and deter thieves who target unsuspected customers, while also educating Bajaj users about how they can best look after their property on Bajajs and Bajaj stations. To improve satisfaction of customers through minimizing walking distance to and from Bajaj stations; it would be better to provide direct service through proper routing, i.e. proper allocation of route directions to each Bajajs in every part of the city. And also the bureau should put additional Bajajs into operation so that the coverage of the service is improved and expanded. And also to accommodate the transport demand of the public, by supplying additional Bajajs to the existing ones should be well maintained so that passengers can reach their destinations on time.

It was confirmed by the customers in the survey result that the reason for the customer dissatisfaction was reflected by the unkind treatment of customers by the Bajaj drives. This is an indication of frustrated and unmotivated workforce, hence there need to have some kind of program or lecture regarding disciplines given to those drivers. The questionnaire survey result identified that there is high crowd in the Bajaj stations which mostly leads customers to theft. So the bureau needs to have people in the stations working to enforce regulations about an appropriate queue. This helps passengers to get a good service without pushing one another and also it will avoid robbery.

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