
Assessment of Unorganised Commuter Service Quality in East Sikkim Zone Over Servqual Dimension

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Abstract

Sikkim is a State in the North-Eastern region of India. Being a part of the Himalayan Series, movement in this region is difficult as compared to the plains of the country. This research work tries to identify the quality of present commuter services provided by unorganized private taxi operators. The author used the time-tested SERVQUAL model to measure the expectation and perception of the passengers towards these services. The GAP score identified reflected that the local passengers are almost happy with the available services. However, the research indicates that further research on the demography needs to be done to understand the expectations and perception of the local passengers.

Highlight

This research study identified the quality of present commuter services in Northeast India, specifically in Sikkim state, an under-studied area of India. The Study tried to identify the opportunities available, in this under-utilized economic geography of India. Although, the available commuter services are very basic, due to lack of exposure the passengers are found to be satisfied with it. The study identified that opportunities are available in improving the appearance and comfort of the vehicles provided by services providers. It was found that relationship marketing tactics & customer care activities are strong in this region. There is further need to do some research over the analysis of the demography of this region. Moreover, there is a large scope for analyzing the CRM activities adopted by the commuter services providers.

Keywords: *Service Quality, Commuter Services, Perception, Expectation*

Introduction

East Sikkim, one of the districts of Sikkim, is a landlocked district with area of 964 km (372 sq. mi). The climate in East Sikkim is subtropical to alpine with five seasons. The district is very sensitive and has strategic importance for India because almost every part of the district is covered with military presence for safeguarding the border from the People Republic of China in the North and Bhutan in the east.

East Sikkim has road connectivity with all other districts of Sikkim, and to the national highway NH10 with West Bengal.

Commuter services in East Sikkim are mainly taken care by unorganized cooperative societies registered with the transport department of Sikkim.

Sikkim does not have an airport or railway station due to geographical constraints, and the nearest airport is Bagdogra in West Bengal, which is 124 km from Gangtok. The nearest railway station is NJP which is 120 km from Gangtok. NH10 is an all-weather road, which runs parallel to river Teesta. In Sikkim, all the transportation of goods and passengers is through road transport, while

within the state, four-wheel commuter services are most popular mean of transport. Cabs operating on shared mode are the most prevalent mode of transport.

In Sikkim, there are two types of commuter services - Organized and Unorganized. SNT (Sikkim Nationalized Transport) is the organized transport system which has 183 buses and 83 tankers. SNT operates throughout the state and through NH10 towards Siliguri. Gangtok to Jorethang, Gangtok to Namchi, Gangtok to Mangan are the major routes.

Under Unorganized services, private taxis owned by individuals are the major transport system in east Sikkim for commuters. In Gangtok, Deorali taxi stand and Vajra Taxi stand are two major taxi stands. These taxi stands are operated by unorganized cooperative societies.

From Gangtok Private Taxi stand, which is below MG Marg, commuters can travel to South Sikkim & West Sikkim, whereas from Deorali Taxi Stand, which is located at Deorali Bazar on NH10, commuters can travel to West Bengal. From Vajra Taxi stand which is near Vajra Cinema, commuters can travel to North Sikkim and Tsango Lake. For long distance journeys, services are provided by ten-seater Bolero or Tata Sumo vehicles, while for short-distance travel in and around the city, small four-seated vehicles like the Omni, Alta, and WagonR, are made available.

The purpose of this study is to examine the relationship between customer satisfaction and service quality in East Sikkim with respect to various service quality dimensions, and consumer expectations towards commuters' services in East Sikkim.

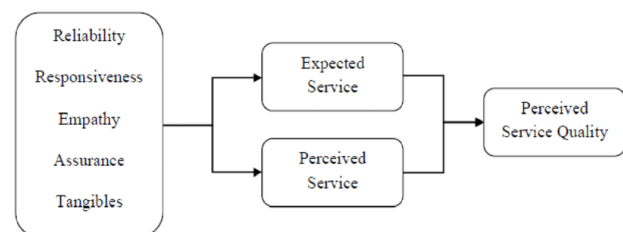
Objectives

1. To study the unorganized commuter services of East Sikkim
2. To identify the consumer expectations towards commuter services of East Sikkim
3. To study the consumer perception towards commuter services of East Sikkim

Literature Review

SERVQUAL (Parasuraman, 1988) is recognized as the best tool to measure service quality over RATER (Reliability, Assurance, Tangibility Empathy and Responsiveness) dimensions (Fig. 1). The tools have been widely used & recognized to assess the service quality over customer expectation & perception. Considering its ease of administration & acceptance, the researcher has used this tool in this research.

Fig.1: SERVQUAL Model



Source: (Parasuraman et al., 1988)

Commuter services, for limited area movement, are essential for growth and development of the community. Van de Velde, D. M. (1999) has developed two classification frameworks in order to clarify the discussion on regulatory reforms in public transport services. Horn, M. E. (2004) described planning conditions, the planning procedures, and reduction techniques that are used to obtain acceptable computational performance in commuter services. Paulley, N. (2006) has produced an up-to-date guidance manual on the factors affecting the demand for public transport for use by public transport operators and planning authorities. Mulley, C (2009), elaborated well-implemented Flexible Transport Services, which have the potential to revitalize bus-based public transport services and traditionally based on fixed networks with variable geographical coverage and levels of service. Thus, researcher has customized the SERVQUAL tool accordingly (Table 1).

Table 1: Items of Quality Measurement

Sr. No.	Scale	SERVOUAL DIMENSION
1	Modern Looking Vehicle	TANGIBILITY
2	Visually Appealing Appearance	
3	Employees Dress-up, Seat Covers, cleanliness etc. Visually Appealing	
4	Show a sincere interest in solving customer problems	EMPATHY
5	Service delivery at the time they promise to do so	RELIABILITY
6	No more waiting time to move	EMPATHY
7	Always willing to help customers.	RELIABILITY
8	Never be too busy to respond to customers' requests	RESPONSIVENESS
9	The behaviour of employees instils confidence in customers	RELIABILITY
10	Customers feel safe in travelling	ASSURANCE
11	Consistently courteous with customers	
12	Have the knowledge to answer customers' questions	RESPONSIVENESS
13	Give individual attention to customers	EMPATHY
14	Operating hours convenient to all their customers	
15	Have their customer's' best interest at heart.	
16	Understand the specific needs of their customers	

Hypothesis:

1. There is no significant Gap between Expectations and perception of Consumer towards Reliability of Commuter Services of East Sikkim (H01: $\mu_e = \mu_p$)
2. There is no significant Gap between Expectations and perception of Consumer towards Assurance of Commuter Services of East Sikkim (H02: $\mu_e = \mu_p$)
3. There is no significant Gap between Expectations and perception of Consumer towards Physical Appearance of Commuter Services of East Sikkim (H03: $\mu_e = \mu_p$)
4. There is no significant Gap between Expectations and perception of Consumer towards Empathy of Commuter Services of East Sikkim (H04: $\mu_e = \mu_p$)

5. There is no significant Gap between Expectations and perception of Consumer towards Responsiveness of Commuter Services of East Sikkim ($H_0: \mu_e = \mu_p$)

Research Methodology:

To study the problem, the researcher used Exploratory & Descriptive Research Designs. For this, both primary as well as secondary data was used. The secondary data was collected from printed as well as electronic resources. For the study, 90 respondents of East Sikkim were selected through Random sampling technique; among them, 63 data sets were found complete & eligible for data work. The data was collected through a structured questionnaire. The questionnaire was developed on the SERVQUAL model, to record the expectation & perception of respondents. The Gap analysis was done primarily to identify any gap between Consumer Expectations and Perceptions. The service quality is measured on 16 items.

These items use a five-point Likert scale to measure the expectations and perception of customers. The categories used for measuring expectations are given in table 2.

Table 2: Expectations Measurement Scale
What do you feel about Excellent Commuter Services?

Must Have	Should Have	OK	Not Required	Not Required at All
1	2	3	4	5

Similarly, the categories used to measure perceptions are defined in Table 3.

Table 3: Perceptions Measurement Scale

Always	Most of the time	Not Always	Very Few	Never
1	2	3	4	5

How often have you traveled in Unorganized Commuter Services?

To test hypotheses, two sample Z-tests are used, as to compare the mean scores of expectations & perceptions towards present commuter services available in this satellite location.

Problem Discussion

In Sikkim, public transport is provided by

SNT under transport department of Govt of Sikkim, which is only the organized commuters service provider in Sikkim. Though SNT is a major player in the sector a large number of unorganized service providers are in the market providing service to commuters for their journeys.

Sikkim has a passage through West Bengal which connects Sikkim with rest of the Indian state. NH10 is its only lifeline, and even this is sometimes blocked in case of agitation in neighboring districts of Darjeeling and Kalimpong. Sikkim has to face road blockages which lead to increase in fare for the commuters and non-availability of cab services in the unorganized commuter sector.

Due to the geographical location and difficult terrain, road infrastructure is underdeveloped, and landslide, potholes are major hindrances. Sikkim is one of the major tourist destinations during peak tourist season - cabs are mostly booked by tourists, and therefore for daily commuters it is difficult to find a cab on time, and even then, are made available on extra charge. Commuter services are under the unorganized sector so services given by the cab are variable depending upon the cab and the driver.

Data Findings

The data collected from 63 respondents reflects that the customers of Sikkim are quality oriented and expect high quality from the Commuter Service providers. In line with that, commuter service providers mostly provide them quality services, sometimes even beyond expectations.

Data Analysis & Hypothesis Testing

From the collected data, the researcher tried to find out the mean score of every item, selected to measure the expectation and experience of service quality delivered by commuter service providers. The gap between the mean ratings were considered a GAP. The more positive value reflected the more GAP to achieve the desired service quality, whereas the negative values reflected the better service quality over and above the expectations of the customers. The commenters' expectation scores are given in Table 4.

Table 4: Average Expectation Scores

Sr. No.	Scale	Mean Score out of 5	Mode
1	Modern Looking Vehicle (ES1)	1.6	1
2	Visually Appealing Appearance (ES2)	1.8	1
3	Employees Dress-up, Seat Covers, cleanliness etc. Visually Appealing (ES3)	1.7	1
4	Show a sincere interest in solving customer problems (ES4)	1.4	1
5	Service delivery at the time they promise to do so (ES5)	1.3	1
6	No waiting time to move (ES6)	1.4	1
7	Always willing to help customers. (ES7)	1.5	1
8	Never too busy to respond to customers' requests (ES8)	1.5	1
9	The behaviour of employees instils confidence in customers (ES9)	1.5	1
10	Customers feel safe in travelling (ES10)	1.4	1
11	Consistently courteous with customers (ES11)	1.5	1
12	Have the knowledge to answer customers' questions (ES12)	1.4	1
13	Give individual attention to customers (ES13)	1.6	1
14	Operating hours convenient to all their customers (ES14)	1.6	1
15	Have their customer's' best interest at heart. (ES15)	1.5	1
16	Understand the specific needs of their customers (ES16)	1.6	1

The data reflected that in all items the perceptions score is greater than the expectations. It is only the dressing of commuter service providers which is found at par or little lower than expectations of

customers. However, the overall score of customer experience is much higher than their expectations (Table 5 & 6). The overall performance of quality of service is found 114.9% over the customer expectations.

Table 5: Average Perception Scores

Sr. No.	Scale	Mean Score out of 5	Mode
1	Modern Looking Vehicle (PS1)	1.8	1
2	Visually Appealing Appearance (PS2)	1.7	1
3	Employees Dress-up, Seat Covers, cleanliness etc. Visually Appealing (PS3)	1.8	1
4	Show a sincere interest in solving customer problem (PS4)	1.7	1
5	Service delivery at the time they promise to do so (PS5)	1.7	1
6	No waiting time to move (PS6)	1.8	1
7	Always willing to help customers (PS7)	1.7	1
8	Never too busy to respond to customers' requests (PS8)	1.6	1
9	The behaviour of employees instils confidence in customers (PS9)	1.7	1
10	Customers feel safe in travelling (PS10)	1.6	1
11	Consistently courteous with customers (PS11)	1.7	1
12	Have the knowledge to answer customers' questions (PS12)	1.7	1
13	Give individual attention to customers. (PS13)	1.8	1
14	Operating hours convenient to all their customers (PS14)	1.7	1
15	Have their customer's' best interest at heart. (PS15)	1.8	1
16	Understand the specific needs of their customers (PS16)	1.8	1

Table 6: GAP Analysis

	Mean Score	GAP (ES-PS)	% Performance (PS/EP*100)	Overall GAP	Overall Performance over Expectations
ES1	1.6	-0.2	112.6	-0.2	114.9
PS1	1.8				
ES2	1.8	0.0	98.2		
PS2	1.7				
ES3	1.7	-0.2	109.5		
PS3	1.8				
ES4	1.4	-0.3	122.2		
PS4	1.7				
ES5	1.3	-0.4	127.1		
PS5	1.7				
ES6	1.4	-0.4	125.6		
PS6	1.8				
ES7	1.5	-0.3	117.4		
PS7	1.7				
ES8	1.5	-0.1	107.3		
PS8	1.6				
ES9	1.5	-0.2	114.9		
PS9	1.7				
ES10	1.4	-0.2	117.0		
PS10	1.6				
ES11	1.5	-0.2	112.4		
PS11	1.7				
ES12	1.4	-0.3	118.7		
PS12	1.7				
ES13	1.6	-0.2	111.9		
PS13	1.8				
ES14	1.6	-0.2	110.0		
PS14	1.7				
ES15	1.5	-0.3	118.1		
PS15	1.8				
ES16	1.6	-0.2	114.9		
PS16	1.8				

H_{01} : There is no significant Gap between Expectations and Perception of Consumer towards Reliability of Commuter Services of East Sikkim ($H_{01}: \mu_e = \mu_p$)

Items 5, 7 and 9 tried to measure the GAP in service quality on Reliability dimension. It was found in all the three dimensions, the performance was better than expectations. However the calculated Z-values (-0.54, -0.37 and -0.32) indicate the non-significance (p-values 0.59, 0.71 and 0.75 respectively) of variations and retain the hypothesis. (Table 7)

Table 7: Z-Values & Test of Significance of Reliability Dimensions

	Dimension	Mean Score	Std. Deviation	Z-Value	p-Value	Status at p=0.05
ES5	Reliability	1.3	0.68	-0.54	0.59	Non-Significant
PS5		1.7				
ES7		1.5	0.69	-0.37	0.71	Non-Significant
PS7		1.7				
ES9		1.5	0.69	-0.32	0.75	Non-Significant
PS9		1.7				

H_{02} : There is no significant Gap between Expectations and Perception of Consumer towards Assurance of Commuter Services of East Sikkim ($H_{02}: \mu_e = \mu_p$)

Items 10 and 11 tried to measure the GAP in service quality on Assurance dimension. It was found in all the three dimensions the performances were better than expectations. However, the calculated Z-values (-0.33 and -0.23) indicate the non-significance (p-values 0.74 and 0.81 respectively) of variations and retain the hypothesis. (Table 8)

Table 8: Z-Values & Test of Significance of Assurance Dimensions

	Dimension	Mean Score	Std. Deviation	Z-Value	p-Value	Status at p=0.05
ES10	Assurance	1.4	0.73	-0.33	0.74	Non-Significant
PS10		1.6				
ES11		1.5	0.84	-0.23	0.81	Non-Significant
PS11		1.7				

H_{03} : There is no significant Gap in between Expectations and Perception of Consumer towards Physical Appearance of Commuter Services of East Sikkim ($H_{03}: \mu_e = \mu_p$)

Items 1, 2 and 3 tried to measure the GAP in service quality on Tangibility dimension. It was found in all the three dimensions the performances were better than expectations. However the calculated Z-values (-0.24, 0.03 and -0.19) indicate the non-significance (p-values 0.81, 0.85 and 0.85 respectively) of variations and retain the hypothesis. (Table 9)

Table 9: Z-Values & Test of Significance of Physical Appearance Dimensions

	Dimension	Mean Score	Std. Deviation	Z-Value	p-Value	Status at p=0.05
ES1	Tangibility	1.6	0.85	-0.24	0.81	Non-Significant
PS1		1.8				
ES2		1.8	0.91	0.03	0.85	Non-Significant
PS2		1.7				
ES3		1.7	0.82	-0.19	0.848	Non-Significant
PS3		1.8				

H_{04} : There is no significant Gap between Expectations and Perception of Consumer towards Empathy of Commuter Services of East Sikkim ($H_{04}: \mu_e = \mu_p$)

Items 4, 6, 13, 14, 15 and 16 tried to measure the Gap in service quality on Empathy dimension. It was found in all the three dimensions the performances were better than expectations. However the calculated Z-values (-0.52, -0.45, -0.2, -0.2, -0.39 and -0.26) indicate the non-significance (p-values 0.60, 0.59, 0.84, 0.84, 0.69 and 0.40 respectively) of variations and retain the hypothesis. (Table 10)

Table 10: Z-Values & Test of Significance of Empathy Dimensions

	Dimension	Mean Score	Std. Deviation	Z-Value	p-Value	Status at p=0.05
ES4	Empathy	1.4	0.61	-0.52	0.6	Non-Significant
PS4		1.7				
ES6		1.4	0.82	-0.45	0.65	Non-Significant
PS6		1.8				
ES13		1.6	0.96	-0.20	0.84	Non-Significant
PS13		1.8				
ES14		1.6	0.80	-0.20	0.84	Non-Significant
PS14		1.7				
ES15		1.5	0.69	-0.39	0.69	Non-Significant
PS15		1.8				
ES16		1.6	0.91	-0.26	0.4	Non-Significant
PS16		1.8				

H_{05} : There is no significant Gap in between Expectations and Perception of Consumer towards Responsiveness of Commuter Services of East Sikkim ($H_{05}: \mu_e = \mu_p$)

Item 8 and 12 tried to measure the Gap in service quality on Responsiveness

dimension. It was found in all the three dimensions the performance was better than expectations. However, the calculated Z-values (-0.15 and -0.39) indicate the non-significance (p-values 0.88 and 0.69 respectively) of variations and retain the hypothesis. (Table 11)

Table 11: Z-Values & Test of Significance of Responsiveness Dimensions

	Dimension	Mean Score	Std. Deviation	Z-Value	p-Value	Status at p=0.05
ES8	Responsiveness	1.5	0.74	-0.15	0.88	Non-Significant
PS8		1.6				
ES12		1.4	0.69	-0.39	0.69	Non-Significant
PS12		1.7				

Conclusion

From the above discussion, it is found that present commuter services available in East Sikkim region are very effective. The passengers are more than satisfied with these services; however, the appearance of the vehicle or the service providers needs to improve somewhat, but these are also not significant statistically.

The research reveals the fact that relationship marketing tactics & customer care activities are strong in this region. There is further need to do some research over the analysis of the demography of this region. Moreover, there is a large scope for analyzing the CRM activities adopted by the commuter services providers.

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