

A Study Of Satisfaction Level Of Passenger In Kochi Metro Train**DrN. K. BABU**

Assistant Professor of Commerce
Sree Neelakanta Government Sanskrit College
Pattambi, Kerala, PIN: 679306

Abstract:

A considerable stakeholder for a company is Customer. All small- and large-scale company should satisfy the customer's satisfaction, which additionally defines the market share, customer loyalty, customer repurchase, income generation, productivity, and also perform a significant role in sustainable development. The company's attempts are now focused on their own as customer-oriented and are consequently, assessing the levels of client fulfillment and attempting to detect the fields for the improvement. Initially, the research is concentrated to recognize the level of satisfaction of passenger towards the Kochi Metro Railway System, utilizing the questionnaire technique. Then, to recognize the several factors affecting passenger fulfillment towards Kochi Metro Rail Limited. The specimen includes 50 respondents who have been utilizing the services of Kochi Metro Trains.

Keywords: Metro, Passengers, Satisfaction.

I. INTRODUCTION

Customer satisfaction has turned into one of the major factors affecting the transportation industry particularly metro railway services. So, it will become the highest significance for any transportation industry to offer the highest customer fulfillment via a high standard of services. The organization should continually monitor and must enhance the quality of services to offer an improved customer's fulfillment. People and Diplomatic factors that affect both commuter's fulfillment and service quality.

In India, Kochi is considered to be one of the world's fastest-growing metropolises. The

city and its nearbymetropolitan region have an estimated populace of almost 8 million. This producesaround 11million commuters trips a daywith approximately 6 million automotive trips. There is a powerful needforan effectivetransport system in the metropolisand the inhabitants of Kochi have prolonged felt that it is necessary for an effective, financial, and most reliable rail in accordance with the mass fast-movingtransportation system. That mightexpand and supplementthe currentforms of publictransportation.

Consequently,the Government of Kerala agreed to carry out theKochiMetro Railway Project. This project is designed to providethe public of Kochiwith a secure and safe, environmentally friendly, on schedule, polite services, accessible, comfortable, the transparency, environmentally sustainable, reliable, creativity, revolution, rapid, easy-to-use, effective, inexpensive, contemporary mode of public transportation services which is widelyincorporated with other types of private and public transportationcomprisingMRTS, suburban trains, and buses.

The Government of Kerala has established an SPV ie Special Purpose Vehicle for carrying out theKochiMetro RailwayScheme. The SPV identified as the KochiMetro Railway system was established in accordance with the Companies Act. It is transformed into a joint enterprise of Government of Kerala and Government of India with equivalent equityholding.

It includes air-conditioned coaches, contemporary communication, and train management system. Traveling in Kochi metro, train services are also provided with 4-5 m frequency. Exits and entrances to underground stations are carried out through the flap doors that are controlled with the assistance of contactless tokens and smart cards, traveler convenience is assured by utilizing the number of escalators that have been installed at several metro stations. Intersection together with the other types of transportation is also aided by Kochi Metro Railway System, thus allowing travelers to travel effortlessly within the metropolis. Kochi metro is an essential and a benefit to the citytravelers.

II. REVIEW OF LITERATURE

Som Sankar Sen (2012) Proposed a scenario for the Kolkata metro rail passengers' satisfaction. Therefore, it is the commitment of every company to meetitscustomers and to focus

on customer fulfillment. It is important to detect the factors that affect the passenger fulfillment level. Based upon the anticipation level of travelers, the necessary modifications must be executed by satisfying the customer needs.

Sudin Bag (2012) had described that the vast majority of the individuals who utilize the metro train services for reaching their respective destinations. So, the ticket scheme and information about the check-in and departure of the metro rail must be dependent on the flexible approach of travelers.

Vivek Kumar and Vikas Rastogi (2014) proposed that there must be a high degree of amenities that provides excellent value for travelers and employees who are all traveling through metro rail. The traveler's experience is different from one another's. The service providers need to progress the traveler's comforts and convenience that will lead to customer fulfillment.

Xiang Li and Hong K. Lo (2014) established an optimization technique to progress the procedures of the metro rail system. It offers a quantitative assessment of remaining energy usage. It enhances planning and speed management to reduce electricity consumption. It decreases the total net energy use of Beijing Metro Yizhuang Line across 25%.

A. Appu and S.G Balaji (2017) analyzed that transport functions as a sign of the cultural and social life of inhabitant. The inappropriate and unhygienic transportation system will have an impact on the health of travelers. The launch of the Chennai metro provides in reducing the current passenger transport from road to metro. This will lead to reducing the number of buses, passenger vehicles as well as other automobiles. The main objective of this study is to experience the travel of the customers and to discover the methods pursued by Chennai Metro Rail Limited.

Bhagya Lakshmi, R., & Vasudevan (2020) gathered scientific research information through a scheduled questionnaire with a representative sample size of 220 survey participants. It will aid to detect the factors associated with the Chennai Metro Rail Limited services that have an effect on travelers' fulfillment.

Mishra, A. K. (2013). gathered scientific research information through a questionnaire form with

40 survey participants and attempted to discover the effect of Dhaka metro rail and travelers' satisfaction.

Yang et al., (2015) proposed an optimization technique to plan trains in order to reduce travel time and power consumption. The results demonstrate that the suggested method may decrease the travel time by 3.26% and decrease electricity consumption by 7.31% when compared with the ongoing process approach.

Xin yang et al, (2015) developed an energy-effective planning method that makes usage of electricity from renewable energy. Synchronize check-in and check-out of all the trains situated in the same electricity supply interval. A numerical instance was carried out based on the actual information from the Beijing Metro Yizhuang Line in China.

Elangovan, Senthil Kumar CB & Nallusamy (2017) concentrated over the future evolution of the Chennai metro rail limited. This study also delivered the groundbreaking expansion of the region regarding how neighboring regions are intensely experiencing the effect of those designs by understanding the complete result of the design. The expansion of the design is also delivered with all the required growth factors that provide support for the life of the populace.

Manna, A. (2016). contracts with the security procedures in the L&T company. This firm has an extremely rigorous and well-described safety regulations that follow the BOCW, OSAH standard, and BIS criterion. The obligation on the part of the security technician is to keep an eye about whether any activities take place, out of the site, or in the site, associated with the plan is working in a safe manner or not. It must be inspected by security staff.

Tiwari, G. (2013). demonstrated Delhi metro railway systems which are thought to be the world's most effective development. Metro developments across the nation are intended and implemented in solitary confinement without any concern for feeding excursions and other forms of transportation.

Pilaka, N., & Nallathiga (2020) described the most important technical characteristics of the HMRP to focus on the transportation and traffic of the Hyderabad city. Technical analysis

includes the particulars of metro railway route configuration, vertical, horizontal, and cross-sectional particulars of building, project, construction procedures and methods, functioning procedures, etc. These characteristics make the HMRL as maybe one of the perfectly designed and created project which has been accomplished with excellence.

Sadhukhan, S et al (2015) discussed the inquiry on the significance of several transferal facility characteristics around and in metro stations. The data were examined utilizing three formed techniques, such as GRA, RIDIT analysis, and TOPSIS to comprehend the difference, if either, in the developed rankings of characteristics acquired from such techniques.

Sadhukhan et al., (2016) examined customers' perception towards the enhancement of relocation facilities and calculated WTP ie Willingness-to-pay for expansion of relocation facilities. The results of the research provide a foundation for preparing policies for development.

Goela, R., & Tiwaria (2020) presented the particulars of access-egress and other journey qualities of metro customers in Delhi, and its satellite towns. The author performed an onboarding study of metro travelers in 2011. Respondents to the survey stated usage of seven separate ways to gain access to metro stations.

Singh, Y. P. (2002). appraised the accomplishment of the Metro Rail and proposes different actions to be taken for creating it feasible. The author has suggested setting up an integrated Metropolitan Transportation Authority to care for all types of transportation aside from other valuable actions.

III. STATEMENT OF THE PROBLEM

Our country's financial status is fully dependent on the Indian railway and also the quickest and biggest form of the transportation sector in India. It is required to locate the customer's fulfillment and the factors that affect the operations, technologies, and services at the Kochi Metro Railway system. It will assist in the Kochi Metro Railway system administration to recognize their resources to concentrate on interest wherever they required and to enhance the customer's fulfillment. The maintenance quality of the Kochi Metro Railway system

modifies customer's experience and so the result of the Kochi Metro Railway system services and its connection with the customer's experience to be investigated. The current study has been carried out with the objective to recognize that level of fulfillment, the customer's experience with Kochi Metro Railway system services in Kochi.

IV. OBJECTIVE OF THE STUDY

Transportation plays an important role in the development of our nation's financial system. The survival of Kochi Metro is essential for the State. It is only the users who can ensure it. Therefore a study on the responses of the users is carried out to here. The main objectives are:

- 1) To detect the factors affecting the
- 2) To understand whether the scheme offered by the Kochi Metro Railway system is highly effective or not.

V. RESEARCH METHODOLOGY

The study is based on the primary data selected from the travelers. As many as 50 persons were identified for this purpose on simple random sampling. The data were collected by means of interview schedule. The data so collected were presented in tables and analysed using percentage and diagrams.

VI. **PERIOD OF STUDY:** The study was carried out in 2018.

VII. DATA ANALYSIS AND INTERPRETATIONS

- 1) Physical condition the Kochi Metro train has been investigated. The responses are shown in Table 1.

**Table 1:
Physical Condition**

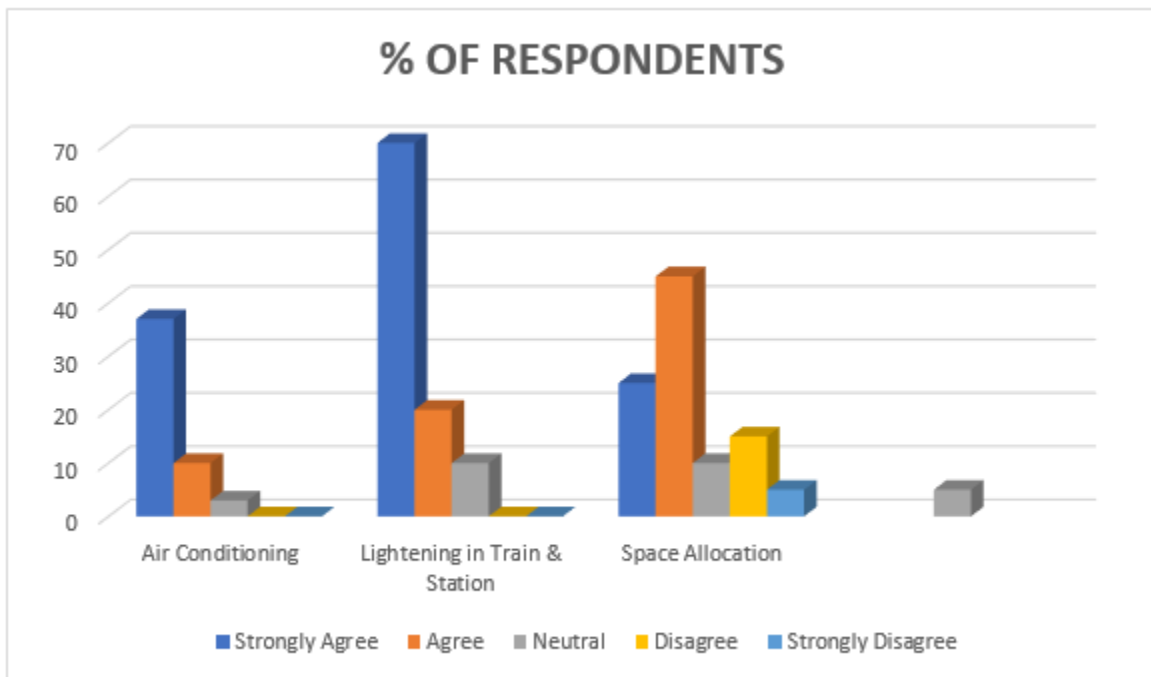
S.No	Response	Air Conditioning		Lightening In Train & Station		Space Allocation	
		Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents
1	Strongly Agree	37	70	30	55	10	25
2	Agree	10	20	10	35	30	45

3	Neutral	3	10	10	10	5	10
4	Disagree	0	0	0	0	5	15
5	Strongly Disagree	0	0	0	0	0	5
	Total	50	100	50	100	50	100

Source: Primary Data

As per Table 1, as much as % of passengers were extremely fulfilled with air conditioning in KochiMetro, and 20% of passengers were fulfilled and 10% of passengers were disappointed. It indicates that 83%of travelers were very pleased with theflash of lightning in train & station and leftover 17% of travelers were not fulfilled. It demonstrates that30% of travelers were fulfilled with the space allotment in Kochi Metro, 60% of travelers were only fulfilled and residual 10% of travelers were disappointed. It can be better understood from the Figure given below.

Figure 1: Comparison of Physical Condition



2) Responses as to the Cleanness of the Kochi Metro train are shown in Table 2.

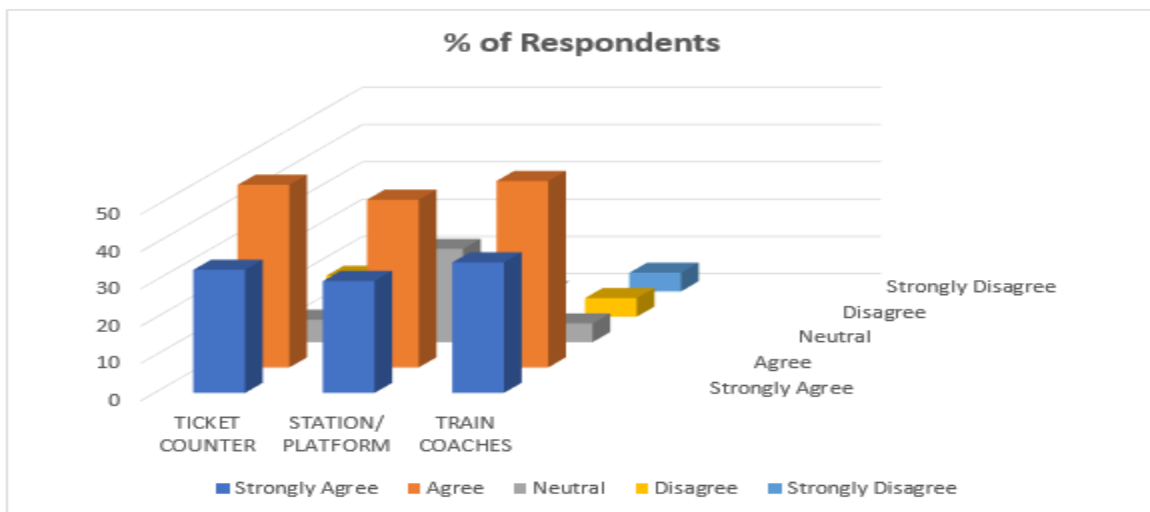
**Table 2:
Cleanness**

S. No	Response	Ticket Counter		Station/Platform Premises		Train Coaches	
		Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents
1	Strongly Agree	11	33	10	30	15	35
2	Agree	19	49	15	45	20	50
3	Neutral	7	6	25	25	6	5
4	Disagree	6	11	0	0	6	5
5	Strongly Disagree	7	1	0	0	3	5
	Total	50	100	50	100	50	100

Source: Primary Data

Table 2 says that 33% of travelers were fulfilled with hygiene in Kochi Metro, and only 50% were fulfilled and 17% of travelers were disappointed. It demonstrates that 76% of travelers were satisfied with the sanitation at the railway station & platform premises and leftover 24% of travelers were not fulfilled. It demonstrates that 29% of travelers were pleased with the purity in train coaches, therefore 51% of travelers were only pleased and leftover 20% of travelers were not happy with the train coaches of Kochi Metro Railway System. It can be better understood from the figure given below.

Figure 2: Comparison of Cleanliness



3) Responses as to the Technical Faults of the Kochi Metro train are shown in Table 3.

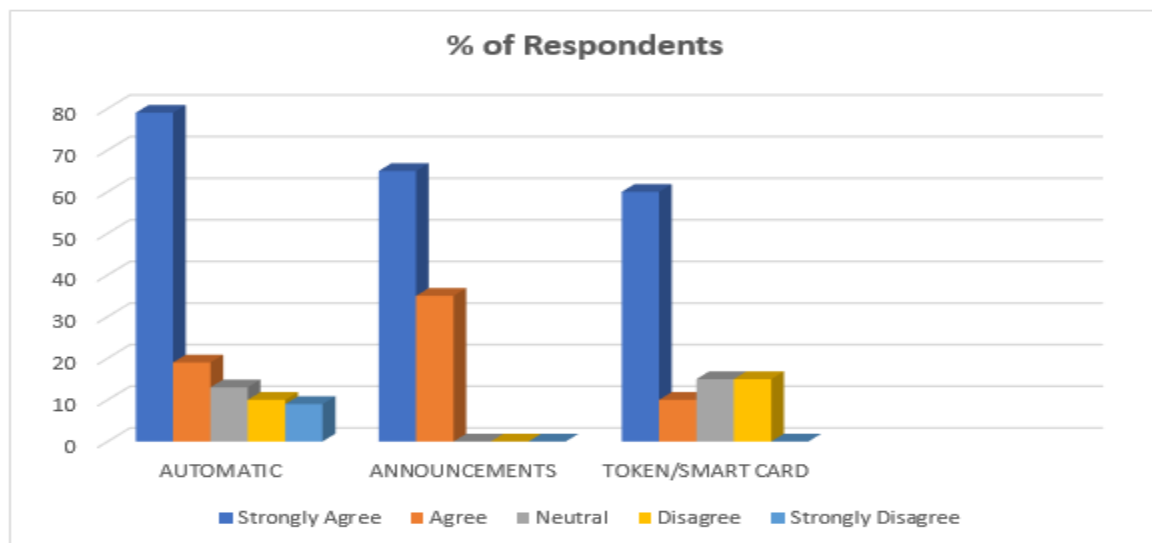
**Table 3:
Technical Faults**

S. No	Response	Automatic Doors		Announcements		Token/ Smart Card	
		Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents
1	Strongly Agree	18	49	40	65	30	60
2	Agree	10	19	10	35	10	10
3	Neutral	5	13	0	0	6	15
4	Disagree	7	10	0	0	2	15
5	Strongly Disagree	10	9	0	0	2	
	Total	50	100	50	100	50	100

Source: Primary Data

Table 3 indicates that 60% of travelers were fulfilled with the automated doors in Kochi Metro, and 25% of travelers were pleased and 15% of travelers were disappointed. It demonstrates that 52% of travelers were pleased with the declarations 48% of travelers were pleased. It demonstrates that 80% of travelers were pleased with the smart cards and token in Kochi Metro, 15% of travelers were only happy, and leftover 5% of travelers were disappointed.

Figure 3 : Comparison of Technical faults



4) Responses as to the Convenience of the Kochi Metro train are shown in Table 4.

Table 4: Convenience

S. No	Response	Seating Arrangement		Comfortable Board & De-Board Of Train		Standing Arrangement Is Available	
		Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents
1	Strongly Agree	28	45	15	45	20	40
2	Agree	12	30	20	35	10	10
3	Neutral	5	10	15	0	15	20
4	Disagree	5	10	3	15	5	25
5	Strongly Disagree	0	5	2	5	0	5

Source: Primary Data

Table 4 says that 48% of travelers were highly pleased with seating arrangements in Kochi Metro, and 26% of travelers were pleased and 26% of travelers were disappointed. It indicates that 55% of travelers were highly fulfilled were happy in de-board and board of the train, 15% of travelers were not fulfilled. It demonstrates that 40% of travelers were highly fulfilled with standing procedures of Kochi Metro, 25% of travelers were only pleased, and leftover 30% of travelers were disappointed. It is shown in the figure given below

5) Responses as to the Safety aspects of the Kochi Metro train are shown in Table 5.

Table 5: Safety

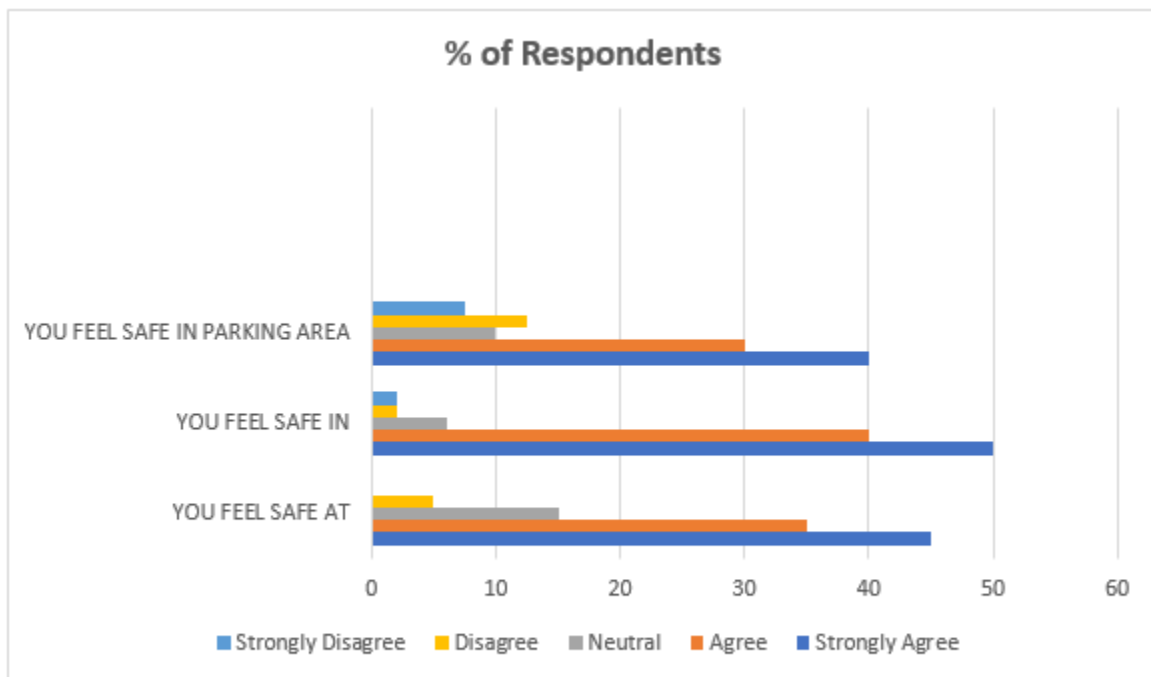
S. No	Response	You Feel Safe at Plat Form		You Feel Safe in Train Coach		You Feel Safe in Parking Area	
		Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents	Number of Respondents
1	Strongly Agree	30	45	20	50	20	40
2	Agree	10	35	20	40	20	30
3	Neutral	5	15	7.5	6	3	10
4	Disagree	5	5	2.5	2	5	12.5

5	Strongly Disagree	0	0	0	2	2	7.5
	total	50	100	50	100	50	100

Source: Primary Data

Table 5 says that 55% of travelers were highly fulfilled with security in the Kochi Metro, and 23% of travelers were fulfilled and 22% of travelers were disappointed. It demonstrates that 50% of travelers were very pleased who are feeling safe in train coaches in Kochi Metro and leftover 43% of travelers were only pleased and leftover 4% of passengers were disappointed. It demonstrates that 36% of travelers were extremely fulfilled who are feeling safe in the parking lot at Kochi Metro, 36% of travelers were only pleased, and leftover 27% of travelers were disappointed.

Figure 5: Comparison of Safety



VI. FINDINGS

Major findings of the study are listed as follows:

- As much as 70% of travelers were highly fulfilled with air conditioning in Kochi Metro, and 20% of travelers were pleased and 10% of travelers were disappointed. 83% of travelers were highly pleased with the lightning in train & railway stations and leftover 17% of travelers were not fulfilled. It demonstrates that 30% of travelers were highly fulfilled with the space allotment in Kochi Metro, 60% of travelers were only pleased, and leftover 10% of travelers were disappointed.
- As much as 3% of travelers were highly fulfilled with hygiene in Kochi Metro, and 50% only were happy and 17% of travelers were disappointed. 76% of travelers were fulfilled with the sanitation at the railway station & platform premises and leftover 24% of travelers were not fulfilled. 29% of travelers were highly fulfilled with the sanitation in train coaches, 51% of travelers were only fulfilled and leftover 20% of travelers were disappointed with the train coaches of Kochi Metro.
- As much as 60% of travelers were very happy with the automated doors in Kochi Metro, and 25% of travelers were fulfilled and 15% of travelers were unhappy. 52% of travelers were highly pleased with declarations 48% of travelers were pleased. 80% of travelers were highly fulfilled with the smart cards and token in Kochi Metro, 15% of travelers were only pleased, and leftover 5% of travelers were disappointed.
- As much as 48% of travelers were highly pleased with seating arrangements in Kochi Metro, and 26% of travelers were pleased and 26% of travelers were unhappy. 55% of travelers were highly fulfilled were relaxing in de-board and board of the train, 15% of travelers were not pleased. 40% of travelers were highly fulfilled with stand-up procedures of Kochi Metro, 25% of travelers were only pleased, and leftover 30% of travelers were disappointed.
- As much as 55% of travelers were highly fulfilled with security in the Kochi Metro, and 23% of travelers were pleased and 22% of travelers were disappointed. 50% of travelers were

highly fulfilled who are feeling safe in train coaches in Kochi Metro and leftover 43% of travelers were only pleased and leftover 4% of travelers were disappointed. 36% of travelers were extremely pleased who are feeling safe in the parking lot at Kochi Metro, 36% of travelers were only fulfilled, and leftover 27% of travelers were disappointed.

VII. CONCLUSION

For each and every organization, Customer satisfaction is considered to be one of the important roles. Consequently, to sustain the customer, the corporation desires to confirm that the appropriate products and essential services, maintained by the correct promotion and which makes it accessible at the appropriate time for the clients. At the same time, high-quality service is equally significant that the client encounters the "Wow Impact" that only outstanding customer service can provide. A company that provides services to its customers' requirements will necessarily increase the allegiance of its clients, therefore resulting in a repetition business and prospective recommendations. Therefore, it is essential that companies find out more about their clients. Creating a professional relationship with their clients enables us with an understanding of what our clients require. When a company is focusing on providing whatever is of value to their clients, this will create the possibilities for the repetition company. The responses from the study is a testimony to the client fulfillment hypothesis most certainly, there occurs a positive link among consistency with client fulfillment. Likewise, the other characteristics, like; reassurances, compassion, tangibles, and sensitivity all have a positive connection with consumer fulfillment. It is much more difficult to quantify the intensity of efficiency and fulfillment after it comes to the unquantifiable predictions. One and only of the methods to help achieve loyal clients is by obtaining the goods and services that have been so excellent that there is an extremely little opportunity that the client necessities will not be fulfilled. Certain problems in comprehend the true client requires that the client can and will modify them without any notice or explanation. Getting a good healing process for a disappointed client is an extremely important and essential procedure for every service organization.

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