

International Journal of Engineering & Technology

Website: www.sciencepubco.com/index.php/IJET

Research paper



An Empirical Study on Commuters Satisfaction Towards Chennai Metro Rail Limited

¹shankar Kumar.S; ²dr. B. Jeyaprabha

¹Research Scholar, School Of Management, Veltech Dr.RR & Dr.SR R&D Institute Of Science And Technology ²Professor, School Of Management, Veltech Dr.RR & Dr.SR R&D Institute Of Science And Technology

Abstract

Commuter's are the asset to any transport industry which is to be maintained carefully. All the employee including management must be involved in providing quality services to the commuter's which leads to commuter satisfaction and retention. Commuter's is one of the stakeholder of the business. In a competitive scenario commuter's satisfaction becomes a top priority. The organization should achieve twin objective of customer satisfaction and commuter delight. So it is very much essential for every organization to find the factors which influence commuter's satisfaction and should continuously monitor and nurture them. The research data is collected through structured questionnaire with a sample size of 60 respondents. It helps to find out the factors related to Chennai Metro Rail Limited services which have a impact on commuter's satisfactions.

Keywords: Chennai Metro Railway, Commuter's Satisfaction, Service Quality

1. Introduction

Commuter's satisfaction has become one of the main factors influencing transport industry especially metro rail services. So it becomes utmost important for any transport sector to provide supreme commuter's satisfaction through quality of services. The organization must constantly monitor and should improve the quality of services in order to provide better commuter's satisfaction. Population and Political factors influencing both service quality and commuter's satisfaction.

Chennai is one of the fastest growing cities in India. Chennai is the 4th largest city in India The city and its surrounding metropolitan area have a population of nearly 8 million. This generates about 11million passengers trips a day with about 6 million vehicular trips. There is a strong need of an efficient transportation system in the city and the people of Chennai have long felt need for an efficient, economic and reliable rail based mass rapid transit system. That would augment and complement the existing modes of public transport.

Hence Government of Tamilnadu decided to implement the Chennai Metro Rail Project. This project aims at providing the people of Chennai with a safe, clean, on time, courteous services, transparent, sustainability, trustworthy, creativity, innovation, fast, reliable, accessible, convenient, comfortable ,efficient ,affordable, modern and economical mode of public transports which is popularly integrated with other forms of public and private transport including buses, suburban trains and MRTS.

The Government of Tamilnadu created a Special Purpose Vehicle (SPV) for implementing Chennai Metro Rail Project. The SPV named as Chennai Metro Rail Limited was incorporated on 03.12.2007 under Companies Act. It is converted into Joint venture of Government of India and Government of Tamilnadu with equal equity holding.

It has a modern communication and train control system, air conditioned coaches. Travelling in Chennai metro, trains are available with 4-5 minutes frequency. Entries and exits to metro stations are done through flap doors which are operated with the help of smart cards and contact less tokens, commuter convenience is ensured using number of escalators which are installed at various metro stations. Interchange with other modes of transport is also facilitated by Chennai Metro Rail Limited, there by enabling commuters to commute easily with in the city. Chennai metro is a vital and a boon to the city commuters.

2. Review of Literature

Dr. Som Sankar Sen (2012) in their paper "Kolkata Metro Railway and Commuters fulfillment: An Emperical study" Suggested that in present scenario fulfilling the consumer need plays a important role. Hence it is the obiligation of every business to satisfy their commuters and to concentrate on commuters delighting. It is essential to find out the factors affecting commuter's satisfaction level. Based on the expectation level of commuters necessary changes they have to make and implement by fulfilling the commuter requirements.

Sudin Bag (2013) had explained in their paper, paper "Kolkata Metro Railway and Customer Satisfaction: An Emperical study" most of the people using the metro train services for reaching there destinations. So the ticket system and information regarding the arrival and departure of metro rail should be based on the flexibility of commuters. It is important to note that they should ensure the service quality of metro railway.

Vivek kumar and Vikas Rastogi(2014) they suggested that should be high level of comfort for the commuters and staff who are all travelling in metro rail. The commuters experience differs from each others. The service providers should improve the passengers amenities which will result in commuters satisfaction.



A. Appu and S.G Balaji(2017) studied that "An Experiential study of contemporary metro rail services : commuters experience journey in modern chennai city". Transportation act as a indicator of social and cultural life of its citizen. Improper and inhygenic transport system will affect the health of commuters. The introduction of Chennai metro contribures in minimizing the current passenger traffic from road to metro. This will result in minimizing the number of buses, passenger cars and other vehicles. The main aim of this research is to experience journey of the commuter's and to find out the techniques followed by Chennai Metro Rail Limited.

Need for the Study

Transport plays a vital role in the growth of our country's economy. Transport is interrelated with trade, commerce, and industrial sector. The study aims in identifying the factors influencing the commuter's satisfaction and the service provided by the Chennai Metro Rail Limited. By studying the commuter's satisfaction level it helps to know whether the system provided by Chennai Metro Rail Limited is efficient or not.

Statement of the Problem

Indian railway is the backbone of the country's economy and also fastest and largest mode of transport sector in india. it is necessary to find the commuter's satisfaction and how the factors influencing the services, technology and processes at Chennai Metro Rail Limited. It will help the Chennai Metro Rail Limited management to identify their resources to focus on attention where they needed and to boost the commuter's satisfaction. The service quality of Chennai Metro Rail Limited influences commuter's experiences and so the outcome of the Chennai Metro Rail Limited services and its relationship with commuter's experience to be researched. The present study has been undertaken with a view to identify that level of satisfaction the commuter's experience with Chennai Metro Rail Limited services in Chennai city.

Research Objective

- 1. To identify the level of commuter's satisfaction towards Chennai Metro Rail Limited.
- 2. To identify the various factors influencing commuter's satisfaction towards Chennai Metro Rail Limited.
- 3. To study the demographic profile of the commuter's of Chennai Metro Rail Limited.

Research Methodology

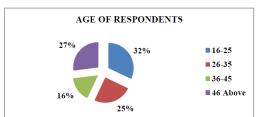
The present study is descriptive in nature. In descriptive research, data is collected in original form directly from the respondents via questionnaire. There are 2 methods of data collection namely primary and secondary data . Primary data was collected by way of questionnaire distribution through survey method. The questionnaire were prepared carefully after considering various parameters involved in the study. Secondary data was collected through various magazines, book websites, organization records, etc. It is the data which has collected by someone else that are being used for the present study. The present study was conducted on 60 commuter's travelling in Chennai metro.

Limitations Of The Study

- 1. Time constraints
- 2. The study was limited to specific number of commuter's, it didn't cover the entire population and also it can't be a total opinion of all commuter's.
- 3. Some Commuter's may not give an accurate response, it will affect the results of the study.

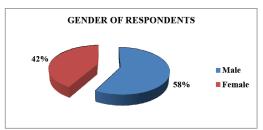
Data Analysis and Interpretation

	1.Age Of Respondents						
S.No	Category	No of Respondents	Percentage				
1	16-25	19	32				
2	26-35	15	25				
3	36-45	10	16				
4	46 Above	16	27				
	Total	60	100				



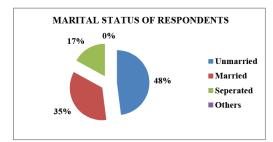
Inference: The above chart shows that the age wise classification of the commuters. 32% of the commuters are in the age group of 16-25 where as 27% of the commuters in the age group of 46 above, 25% belongs to the age group 26-35 and 16% were in the age group of 36-45. It clearly denotes the majority of the commuters are 16-25 years.

2.Gender Of Respondents							
S. No	S. No Category No of Respondents Percentage						
1	Male	35	58				
2	Female	25	42				
	TOTAL	60	100				



Inference: The above chart shows that the gender wise classification of the commuters. 58% of the commuters are male and 42% of the commuters are female. it clearly denotes the majority of the commuters are male when compared to female category.

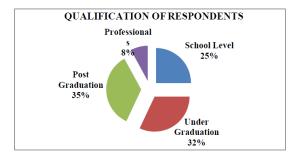
3.Marital Status of Respondents								
S. No	S. No Category No of Respondents Percentage							
1	Unmarried	29	48					
2	Married	21	35					
3	Seperated	10	17					
4	Others	0	0					
	Total	60	100					



Inference: The above chart shows that the marital status of the commuters. 48% of the commuters were unmarried and 35% of the commuters were married. It clearly denotes the majority of the commuters belongs to unmarried.

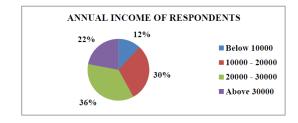
	4. Qualification of Respondents					
S. No	S. No Category No of Respondents Percentage					
1	School Level	15	25			

2	Under graduation	19	32
3	Post graduation	21	35
4	Professionals	5	8
	Total	60	100



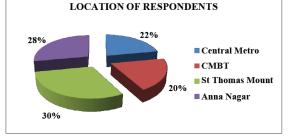
Inference: The above chart shows that the qualification of the commuters. 35% of the commuters were Post graduation and 32% of the commuters were Under graduation. It clearly denotes the majority of the commuters belongs to Post graduation.

5. Annual Income Of Respondents								
S. No Category No of Respondents Percentage								
1	Below 10000	7	12					
2	10000 - 20000	18	30					
3	20000 - 30000	22	36					
5	Above 30000	13	22					
	Total	60	100					



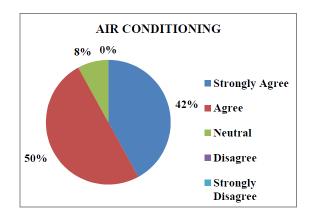
Inference: The above chart shows that the annual income of the commuters. 36% of the commuters belongs to income group of 20K to 30K where as 30% of the commuters belongs to income group of 10K to 20K. It clearly denotes the majority of the commuters are belongs to income category of 20K to 30K.

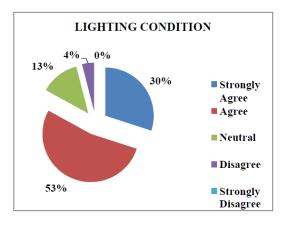
6.Location of Respondents									
S. No	S. No Category No of Respondents Percentage								
1	Central Metro	13	22						
2	CMBT	12	20						
3	St Thomas Mount	18	30						
4	Anna Nagar	17	28						
	Total	60	100						

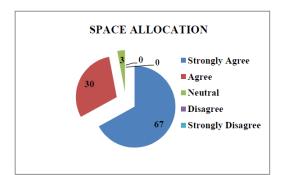


Inference: The above chart shows that the location wise classification of the commuters. The majority of respondents comes from St Thomas Mount(30%). The respondents also comes from other areas like Anna Nagar(28%),central metro(22%),CMBT(20%).

	I.Physical Attributes							
		7.Air Conditioning		8.Lighting Condition		9.Space Allocation		
S. No	Response	No Of Respondents	Percentage	No of	Percentage	No of Respondents	Percentage	
		_	_	Respondents	_	_	_	
	Strongly	25	42	18	30	40	67	
1	Agree							
2	Agree	30	50	32	53	18	30	
3	Neutral	5	8	8	13	2	3	
4	Disagree	0	0	2	4	0	0	
	Strongly	0	0	0	0	0	0	
5	Disagree							
	Total	60	100	60	100	60	100	



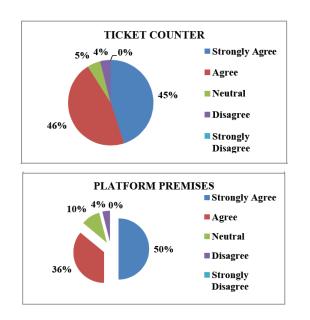


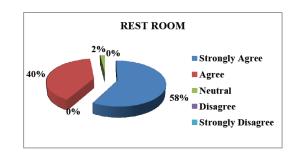


Inference: The above chart shows that the physical attributes of Chennai Metro Rail Limited. in air conditioning, 50% of the commuters were satisfied and 42% of the commuters were highly satisfied and 8% of the commuters were neutral. in lighting condition, 53% of the commuters were satisfied and 30% of the commuters highly satisfied and 4% of the commuters were disagree. in space allocation, 67% of the commuters were highly satisfied and 30% of the commuters were satisfied and 30% of the commuters were neutral.

International Journal of Engineering & Technology

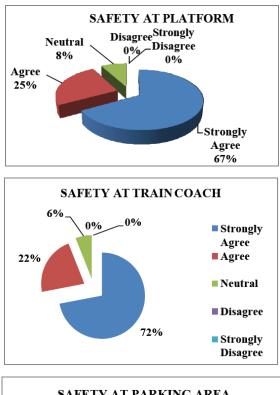
	Ii.Cleanliness								
		10.TICKET COUNTER		11.PLATFORM PREMISES		12.REST ROOM			
S. No	Response	No of	Percentage	No of	Percentage	No of	Percentage		
		Respondents	-	Respondents	-	Respondents	_		
1	Strongly Agree	27	45	30	50	35	58		
2	Agree	28	46	22	36	24	40		
3	Neutral	3	5	6	10	1	2		
4	Disagree	2	4	2	4	0	0		
5	Strongly Disagree	0	0	0	0	0	0		
	Total	60	100	60	100	60	100		





Inference: The above chart shows that the cleanliness of Chennai Metro Rail Limited. In ticket counter, 46% of the commuters were satisfied and 45% of the commuters were highly satisfied and 5% of the commuters were neutral. In platform premises, 50% of the commuters were highly satisfied and 36% of the commuters satisfied and 10% of the commuters were neutral. In rest room, 58% of the commuters were highly satisfied and 2% of the commuters were neutral.

	Iii.Satefy							
S. No	Response	13.Safety At Platfo	orm	14.Safety At Train Coach		14. Safety At Parking Area		
		No Of	Percentage	No Of	Percentage	No Of	Percentage	
		Respondents		Respondents		Respondents		
1	Strongly Agree	40	67	43	72	35	58	
2	Agree	15	25	13	22	17	29	
3	Neutral	5	8	4	6	8	13	
4	Disagree	0	0	0	0	0	0	
5	Strongly Disagree	0	0	0	0	0	0	
	Total	60	100	60	100	60	100	





Inference: The above chart shows that the safety of Chennai Metro Rail Limited. In platform safety, 67% of the commuters were highly satisfied and 25% of the commuters were satisfied and 8% of the commuters were neutral. In train coach safety, 72% of the commuters were highly satisfied and 22% of the commuters satisfied and 6% of the commuters were neutral. In parking area safety, 58% of the commuters were highly satisfied and 29% of the commuters were satisfied and 13% of the commuters were neutral.

3. Findings

- It clearly denotes the 32% of the commuters age group of 16-25 years.
- It clearly shows the 58% of the commuters are male when compared to female category is 42%.
- 48% of the commuters were unmarried and 35% of the commuters were married. It indicate the majority of the commuters belongs to unmarried.
- 35% of the commuters were post graduation and 32% of the commuters were under graduation. It clearly denotes the majority of the commuters belongs to post graduation.
- 36% of the commuters belongs to income group of 20K to 30K where as 30% of the commuters belongs to income group of 10K to 20K.

- The majority of respondents comes from St Thomas Mount(30%). The respondents also comes from other areas like anna nagar(28%),central metro(22%),CMBT(20%).
- 50% of the commuters were satisfied with air conditioning, and 42% of the commuters were highly satisfied and 8% of the commuters were neutral.
- In lighting condition, 53% of the commuters were satisfied and 30% of the commuters highly satisfied and 4% of the commuters were disagree.
- In space allocation, 67% of the commuters were highly satisfied and 30% of the commuters were satisfied and 3% of the commuters were neutral.
- 46% of the commuters were satisfied with cleanliness at ticket counter and 45% of the commuters were highly satisfied and 5% of the commuters were neutral.
- 50% of the commuters were highly satisfied with cleanliness at platform premises, and 36% of the commuters satisfied and 10% of the commuters were neutral.
- In rest room cleanliness, 58% of the commuters were highly satisfied and 40% of the commuters were satisfied and 2% of the commuters were neutral.
- In platform safety, 67% of the commuters were highly satisfied and 25% of the commuters were satisfied and 8% of the commuters were neutral.
- In Train coach safety, 72% of the commuters were highly satisfied and 22% of the commuters satisfied and 6% of the commuters were neutral.
- In parking area safety, 58% of the commuters were highly satisfied and 29% of the commuters were satisfied and 13% of the commuters were neutral.

4. Suggestions

- 1. Token System (Counter) needs improvement, since there are many cabins present but in only one counter the tickets have been issued this lead to commuters dissatisfaction by standing in a queue
- 2. Need to recruit more employees at Chennai Metro Rail Limited for providing services.
- 3. Parking card can be given to regular users of Chennai Metro Rail Limited at a nominal rate.
- 4. Commuter's needs a Wi-Fi connectivity facility at the Metro stations.
- 5. Provide reserved spaces for wheel chairs for differently abled commuters in metro rail stations.
- 6. The metro authority should give emphasis in maintaining lift and escalators, inside atmosphere, reasonable cost, since they are motivating factors in influencing the commuter's to avail Chennai Metro Rail Limited services.

5. Conclusion

Chennai is the major densely populated city with a lot of people residing with an age group of 18-30 years for their better standard of living they live over there. In order to provide service to the current population in Chennai transportation plays a vital role in the city. The services of transportation are needed for the majority of people living in Chennai city. In this regard, the Chennai Metro Rail Limited emerges and it running successfully. They should even bring more innovative services to the people with the affordable cost. If the expectations of commuter's are met then their satisfaction level increases. On the basis of this study, some suggestions have been made. If the suggestions are taken into account by Chennai Metro Rail Limited, it is hoped that the Indian Railways will shine in a staggering way.

References

- Appu.A and S.G.Balaji. An empirical study of contemporary metro rail services: commuters experience journey in modern Chennai city. International journal of advanced research and development. 2017; 2(4): 200-203.
- [2] Bag S, Sen S. Kolkata metro railway and customer satisfaction. International Journal of Multidisciplinary Research. 2012; 2(3): 165-176.
- [3] Singh Bhagwan and Kumar Devender. Customer satisfaction analysis services of delhi metro. Asian Journal of Multidisciplinary Studies. 2014; 7(2): 16-32.
- [4] Disha Thanai and Nishant Chugh. Customer Satisfaction towards Delhi Metro Rail Corporation. XVIII Annual International Conference Proceedings. January 2017
- [5] Srivastava, K.K & Khandai.S: Consumer Behaviour(Indian Context), 1st Edition.
- [6] Kothari C.R.(2004): Research Methodology; Second Edition.
- [7] https://chennaimetrorail.org
- [8] https://en.m.wikipedia.org/wiki/Chennai_Metro
- [9] Annual Report of Chennai Metro Rail Limited.