Satisfaction Of Passengers on The Amenities Provided By Southern Railways – A Comparative Study With Reference To Erode And Coimbatore Junction

Dr. Dinesh kumar G R,

Assistant Professor & Head, Department of commerce, AJK college of arts and science, Coimbatore.

ABSTRACT

Indian Railways is the major mode of transport in the country for passengers as well as freight due to its large network, number of trains and affordability. On the industry front, it is the only player hence, a monopoly has been created (which is legal). On the market front, the majorities of its passengers are illiterate, semi educated and low or middle income with no/low consciousness for quality aspects of service. Railways provide them with a convenient, accessible, and affordable mode of transportation. The monopoly structure has created a typical situation where the service provider (Indian Railways) has no competition and can afford to ignore aspects such as quality of service, passenger satisfaction, and product promotion. The railway is the lifeline of Indian economy and society, but it is far from healthy and satisfactory service offering. The focus of this study is to analyze the satisfaction of services provided by Erode and Coimbatore junctions. The passengers are dissatisfied with Coach/Toilets occupied by Unauthorized Passenger & Vendors, Cleanliness of Toilets/Coaches, Availability of Quality & Quantity of Food made , Clarity of Announcement at Stations, and Service quality with both Coimbatore and Erode junction and these factors should be given more importance in future. One a whole when compared to Erode the service provided by Coimbatore junction is been good and Erode junction needs an improvement towards the service in near future for betterment of service.

Keywords: Satisfaction of passengers, Amenities, Southern railways.

INTRODUCTION TO THE STUDY

Public transportation systems provide the most efficient means for moving large number of people, especially in density populated rural and urban centers in a vast country like India. For this reason, providing services characterized by high levels of quality is very important in order to customize the users of the services and attract new users. Key literature review on the passengers' experiences and their satisfaction towards railway services offered in Indian railways. Service quality may be defined as passenger perception of how well a service meets or exceeds their expectations. Satisfaction from service quality is usually evaluated in terms of technical quality and functional quality. This paper is an attempt to put forth the role of service quality in affecting passenger satisfaction in the train, with special reference to South Indian Railways. The study is to compare the perception of passengers in Erode and Coimbatore junctions. For that purpose a survey is conducted with passengers who are travelling in various trains of Erode and Coimbatore junction.

The study is about analyzing the passenger satisfaction of amenities provided by Erode and Coimbatore junctions with special reference to Coimbatore and Erode junction. The reviews is been divided in to two parts the first discusses about article related to foreign author and local authors who have made a research with passenger satisfaction with railways.

ORGANISATIONAL STRUCTURE OF RAILWAY MINISTRY



Source : Ministry of Railways (Railway Board) CMS Team Last Reviewed on: 29-11-2017

Volume 13, No. 3, 2022, p. 1182 - 1192 https://publishoa.com ISSN: 1309-3452

There is one Union Minister of Railways, and one Minister of State for Railways. Manoj Sinha and Rajen Gohain are the current Minister of State for Railways. The Railway Board, which is the apex body of the Indian Railways reports to the Minister of Railways. The Railway Board comprises one Chairman, five "members of the Railway Board.", and a Financial Commissioner (who is the representative of the Ministry of Finance in the Railway Board). It also includes a Director-General (Railway Health Services) and a Director-General (Railway Protection Force). A number of directorates report to the Railway Board. The Ministry of Railways is housed inside Rail Bhavan in New Delhi.

STATEMENT OF THE PROBLEM

Indian Railways is the major mode of transport in the country for passengers as well as freight due to its large network, number of trains and affordability. On the industry front, it is the only player hence, a monopoly has been created (which is legal). On the market front, the majorities of its passengers are illiterate, semi educated and low or middle income with no/low consciousness for quality aspects of service. Railways provide them with a convenient, accessible, and affordable mode of transportation. The monopoly structure has created a typical situation where the service provider (Indian Railways) has no competition and can afford to ignore aspects such as quality of service, passenger satisfaction, and product promotion. The railway is the lifeline of Indian economy and society, but it is far from healthy and satisfactory service offering. The focus of this study is to analyze the satisfaction of services provided by Erode and Coimbatore junctions. In this background the following questions arise in the minds of the researcher.

- 1. What is the demographic profile of the passengers?
- 2. What are the services provided by the Indian Railways in Coimbatore and Erode junctions?
- 3. What are the safety and security services provided in Coimbatore and Erode junctions?
- 4. What are the facilities provided by Coimbatore and Erode junction?
- 5. What is the level of satisfaction of the passengers on amenities in Coimbatore and Erode junctions?
- 6. What are the factors influencing the level of satisfaction of the passengers?

OBJECTIVES OF THE STUDY

- To study about the demographic profile of the respondents.
- To compare the perception of passengers towards basic facilities, hygiene factors, safety & security, health care service, punctuality and behavior of staffs in Erode and Coimbatore junction.
- To study the level of opinion on the behaviour of railway staffs.
- To compare the level of satisfaction of the passengers in Erode and Coimbatore junction with facilities provided by Indian railways.
- To compare the level of satisfaction of the passengers towards facilities provided with Sub-urban stations in Erode and Coimbatore junction.

SCOPE OF THE STUDY

The study aims to identify the factors for Passenger Perception regarding facilities provided by Erode and Coimbatore junctions. Passenger Perception has been commonly accepted as an indicator of Service Quality. The need of the Study is to identify important factors determining service quality of Erode and Coimbatore junctions that lead to Passenger Satisfaction. The Scope of the Study is to help the Erode and Coimbatore junctions to compare the perception of Passengers towards quality of Services provided by them.

RESEARCH METHODOLOGY

The study is of empirical in nature. The survey was conducted in Erode and Coimbatore junctions which includes (Erode and Coimbatore districts). The study used both primary data and secondary data. The primary data was collected through field survey in the study area. First- hand information's pertaining to the benefits derived and the various competencies encountered were collected from 500 passengers to know about the level of satisfaction towards service provided by Erode and Coimbatore junctions.

Method of Data Collection

Primary Data

The primary data required for the study has been collected through a structured self administered questionnaire which has been designed and distributed by the researcher to collect the necessary data.

Volume 13, No. 3, 2022, p. 1182 - 1192 https://publishoa.com ISSN: 1309-3452

Secondary Data

The secondary data was collected through various articles, Journals, Websites etc.

Sampling Design

The study covered the satisfaction on service provided by Erode and Coimbatore junctions to their passengers. As the study is based on passenger satisfaction towards Erode and Coimbatore junctions the samples don't have criteria for choosing the samples Convenience sampling is used for the research.

A selection of 500 passengers has been made on a convenient sampling basis at the rate of 1.5% of the total passengers who are waiting in waiting hall dealt per day from each selected stations.

Statistical tolls applied

In order to suit the requirements of the present study, the tests which have been employed by the researcher are Frequency analysis, Kruskal-Wallis test, Factor analysis, and Descriptive statistics. All the tests in the study were carried out by formulating suitable hypothesis and were also tested at 5% level of significance.

LIMITATIONS OF THE STUDY

- 1. The data was collected only with the passengers of Erode and Coimbatore junctions where the perception may vary with other railways in India.
- 2. The study could not be generalized due to the fact that researcher adapted personal interview method.
- There was a bias in collecting the data as the respondents may given a wrong answer for the questions asked with 3. them.

ANALYSIS AND INTERPRETATION

ria	bles of the	respondents				
			Coimbatore		Erode	
			Frequency	Percent	Frequency	Percent
		Male	201	80.4	175	70
		Female	49	19.6	75	30
	Gender	Total	250	100	250	100
		Below 18	4	1.6	7	2.8
		18-25	80	32	90	36
		26-35	61	24.4	76	30.4
		Above 35	105	42	77	30.8

250

Demographic va

Age

Total

Out of 250 respondents with Coimbatore junction 1.6% are below 18 years of age, 32% are between 18-25 years of age, 24.4% are between 26-35 years of age and 42% are above 35 years of age. It depicts that most of the passengers are above 35 years of age with Coimbatore junction.

100

250

100

Out of 250 passengers from Erode junction 2.8% are below 18 years of age, 36% are between 18-25 years of age, 30.4% are between 26-35 years of age and 30.8% are above 35 years of age. It depicts that most of the passengers are between 18-25 years of age with Erode junction.

Out of 250 respondents with Coimbatore junction 1.6% have completed 10th standard, 1.6% have completed higher secondary, 53.6% have completed UG and 43.2% have completed their PG. It depicts that most of the passengers have completed their Under Graduation with Coimbatore junction.

Out of 250 passengers from Erode junction 2.8% have completed 10th standard, 2.8% have completed higher secondary, 56.4% have completed UG and 38% have completed their PG. It depicts that most of the passengers have completed their Under Graduation with Erode junction.

Volume 13, No. 3, 2022, p. 1182 - 1192 https://publishoa.com ISSN: 1309-3452

FACTOR ANALYSIS FOR LEVEL OF SATISFACTION OF PASSENGERS WITH COIMBATORE DIVISION

A total of 16 variables were taken for the purpose of factor redemption towards level of satisfaction of passengers with Coimbatore division

KMO and Bartlett's Test							
Kaiser-Meyer-Olkin Measure of Sampling Adequacy814							
Bartlett's Test of Sphericity	Approx. Chi-Square	3.081					
	df	120					
	Sig.	.000					

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is at 0.814 which is greater than 0.5. It depicts that the KMO value is adequate and the factors are normally distributed.

Total Variance Explained

	Initial Eigen values			Extract Loadin	ion Sums gs	of Squared	Rotation Sums of Squared Loadings			
Compo	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative	Total	% of Variance	Cumulative %	
1	1011	20.842	20.842	10tal 4 775	20.842	70 20 842	2 2 1 8	20 737	20 737	
	4.775	29.042	29.842	4.775	29.042	27.042	5.516	20.737	20.737	
2	3.401	21.253	51.095	3.401	21.253	51.095	3.151	19.694	40.431	
3	2.170	13.562	64.658	2.170	13.562	64.658	2.573	16.079	56.510	
4	1.179	7.370	72.028	1.179	7.370	72.028	1.802	11.265	67.775	
5	1.037	6.483	78.511	1.037	6.483	78.511	1.718	10.736	78.511	
6	.716	4.477	82.988							
7	.593	3.709	86.696							
8	.514	3.213	89.910							
9	.432	2.698	92.607							
10	.307	1.921	94.529							
11	.269	1.683	96.212							
12	.212	1.326	97.538							
13	.178	1.111	98.648							
14	.100	.625	99.273							
15	.089	.556	99.829							
16	.027	.171	100.000							

Interpretation

The components having Eigenvalue more than 1 are taken as components for the study. With the study the first component contributes 29.84%, the second component contributes 21.25%, the third component contributes 13.56%, the fourth component contributes 7.37% and the fifth component contributes 6.48%.

Volume 13, No. 3, 2022, p. 1182 - 1192 https://publishoa.com ISSN: 1309-3452

Rotated Component Matrix ^a									
	Component								
	1	2	3	4	5				
Illumination & Signages	.289	.013	.264	.024	.852				
Availability of Porters(Coolies)at the Station	.708	250	.373	.087	.339				
Booking Clerk Competency & Behaviour	.029	141	.827	.340	.148				
Clarity of Announcement at Stations	.330	.131	.767	.023	.076				
Cleanliness of Toilets	.493	484	.208	.592	.025				
Unauthorized Vendors& Passengers	.830	.034	120	.221	201				
Cleanliness of Platforms	183	.163	.187	.873	.117				
Late Running of Trains	047	.587	.524	.317	057				
Punctuality	153	.451	.734	.037	.236				
Quality of services	.217	.775	.049	.056	.354				
Safety	.225	.821	.057	103	006				
Ambience of Waiting Rooms/Rest Rooms	142	.465	.055	.281	.667				
Seating, Water, Trolley facilities at the Platform	266	.720	.096	.133	.014				
Pricing of Food	.140	.430	.385	.474	.116				
Linen/Bedroll Cleanliness	.835	.210	.109	246	.033				
Fans and Lights in the Trains	.852	.022	.082	138	.387				

The common variables above 0.5 are taken for decision making process of the study. The variables are Illumination & Signages, Booking Clerk Competency & Behaviour, Unauthorized Vendors& Passengers, Cleanliness of Platforms, Safety, Linen/Bedroll Cleanliness and Fans and Lights in the Trains.

DESCRIPTIVE STATITICS FOR LEVEL OF SATISFACTION OF PASSENGERS WITH COIMBATORE JUNCTION

Descriptive Statistics								
	Ν	Mean	SD					
Booking Clerk Competency & Behaviour	250	2.67	1.143					
Unauthorized Vendors& Passengers	250	3.07	1.022					
Cleanliness of Platforms	250	2.38	.950					
Safety	250	2.69	.926					
Linen/Bedroll Cleanliness	250	3.17	1.151					
Fans and Lights in the Trains	250	3.10	1.037					
Valid N (listwise)	250							

The above table shows the descriptive statistics for the reduced factors using factor analysis with passengers in Coimbatore junction. It depicts that the passengers are satisfied towards Booking Clerk Competency & Behaviour with the junction (2.67), Cleanliness of Platforms with Coimbatore junction (2.38) and safety (2.69).

The passengers are dissatisfied towards Unauthorized Vendors& Passengers with the junction (3.07), Linen/Bedroll Cleanliness (3.17) and Fans and Lights used with the trains and platforms (3.10).

FACTOR ANALYSIS FOR LEVEL OF SATISFACTION OF PASSENGERS WITH ERODE DIVISION

A total of 16 variables were taken for the purpose of factor redemption towards level of satisfaction of passengers with Erode division

Volume 13, No. 3, 2022, p. 1182 - 1192 https://publishoa.com ISSN: 1309-3452

KMO and Bartlett's Test						
Kaiser-Meyer-Olkin Measure of Sampling Adequacy797						
Bartlett's Test of Sphericity	Approx. Chi-Square	2.567E3				
	df	120				
	Sig.	.000				

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is at 0.797 which is greater than 0.5. It depicts that the KMO value is adequate and the factors are normally distributed.

Total	Variano	ce Explained							
	Initial Eigenvalues			Extracti Loading	ion Sums gs	of Squared	Rotation Sums of Squared Loadings		
Comp onent	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.758	29.735	29.735	4.758	29.735	29.735	2.873	17.957	17.957
2	2.574	16.088	45.822	2.574	16.088	45.822	2.477	15.482	33.439
3	1.934	12.087	57.909	1.934	12.087	57.909	2.292	14.323	47.762
4	1.487	9.296	67.205	1.487	9.296	67.205	2.140	13.377	61.139
5	1.032	6.449	73.653	1.032	6.449	73.653	2.002	12.514	73.653
6	.996	6.227	79.880						
7	.774	4.837	84.717						
8	.597	3.731	88.448						
9	.431	2.694	91.142						
10	.347	2.172	93.313						
11	.309	1.930	95.243						
12	.260	1.622	96.866						
13	.202	1.265	98.131						
14	.159	.994	99.125						
15	.100	.627	99.753						

Volume 13, No. 3, 2022, p. 1182 - 1192 https://publishoa.com ISSN: 1309-3452

_

Total Variance Explained										
	Initial I	Eigenvalues		Extraction Loading	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Comp onent	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	4.758	29.735	29.735	4.758	29.735	29.735	2.873	17.957	17.957	
2	2.574	16.088	45.822	2.574	16.088	45.822	2.477	15.482	33.439	
3	1.934	12.087	57.909	1.934	12.087	57.909	2.292	14.323	47.762	
4	1.487	9.296	67.205	1.487	9.296	67.205	2.140	13.377	61.139	
5	1.032	6.449	73.653	1.032	6.449	73.653	2.002	12.514	73.653	
6	.996	6.227	79.880							
7	.774	4.837	84.717							
8	.597	3.731	88.448							
9	.431	2.694	91.142							
10	.347	2.172	93.313							
11	.309	1.930	95.243							
12	.260	1.622	96.866							
13	.202	1.265	98.131							
14	.159	.994	99.125							
15	.100	.627	99.753							
16	.040	.247	100.000							

The components having Eigenvalue more than 1 are taken as components for the study. With the study the first component contributes 29.73%, the second component contributes 16.08%, the third component contributes 12.08%, the fourth component contributes 9.29% and the fifth component contributes 6.44%.

Rotated Component Matrix^a

Component						
1	2	3	4	5		

Volume 13, No. 3, 2022, p. 1182 - 1192 https://publishoa.com ISSN: 1309-3452

Illumination & Signages	.273	.002	.187	.057	.864
Availability of Porters(Coolies)at the Station	.607	190	.263	.405	.334
Booking Clerk Competency & Behaviour	.081	117	.654	.490	.279
Clarity of Announcement at Stations	.499	038	.596	.072	.155
Cleanliness of Toilets	.353	146	.231	.776	014
Unauthorized Vendors& Passengers	.540	.348	152	.519	239
Cleanliness of Platforms	268	.284	.183	.753	.259
Late Running of Trains	111	.461	.626	.365	122
Punctuality	038	.216	.848	.005	.215
Quality of services	.208	.788	019	.100	.350
Safety	.215	.786	.102	198	030
Ambience of Waiting Rooms/Rest Rooms	005	.316	.181	.066	.748
Seating, Water, Trolley facilities at the Platform	452	.577	.092	.137	.021
Pricing of Food	.011	.471	.358	.180	.187
Linen/Bedroll Cleanliness	.851	.216	.042	114	011
Fans and Lights in the Trains	.808	.070	015	.193	.374

The common variables above 0.5 are taken for decision making process of the study. The variables are Cleanliness of Toilets, Cleanliness of Platforms, Punctuality, Quality of services, Safety and Ambience of Waiting Rooms/Rest Rooms

DESCRIPTIVE STATITICS FOR LEVEL OF SATISFACTION OF PASSENGERS WITH ERODE JUNCTION

Descriptive Statistics							
	Ν	Mean	Std. Deviation				
Cleanliness of Toilets	250	3.37	1.429				
Cleanliness of Platforms	250	2.67	1.071				
Quality of services	250	2.66	.914				
Safety	250	2.66	1.029				
Ambience of Waiting Rooms/Rest Rooms	250	2.92	1.175				
Valid N (listwise)	250						

Valid N (listwise)250The above table shows the descriptive statistics for the reduced factors using factor analysis with passengers in
Erode junction. It depicts that the passengers are satisfied towards Cleanliness of Platforms (2.67), Quality of services (2.66),
Safety (2.66) and Ambience of Waiting Rooms/Rest Rooms (2.92).

The passengers are dissatisfied towards Cleanliness of Toilets (3.37).

KRUSKAL WALLIS TEST

COMPARISON BETWEEN GENDER AND FACTORS RELATED TO SERVICE PROVIDED BY COIMBATORE JUNCTION

H01: There is no relationship between gender and level of satisfaction of passengers with Coimbatore junction

	Gender of the respondents in Coimbatore junction	N	Mean Rank	Chi-square value	Sig
Level of satisfaction of	Male	201	121.69		0.089
passengers with Coimbatore	Female	49	141.11	2.900	
Junction	Total	250			
Satisfaction towards	Male	201	117.00		
responsibility of railway officers	Female		160.36	14.496	0.000
with Combatore junction	Total	250			

Volume 13, No. 3, 2022, p. 1182 - 1192 https://publishoa.com ISSN: 1309-3452

Level of acceptance towards basic facilities provided with Coimbatore junction	Male	201	132.21		
	Female	49	97.97	8.927	0.003
	Total	250			
Level of acceptance towards hygiene factors with Coimbatore junction	Male	201	127.82		
	Female	49	116.00	1.085	0.298
	Total	250			
Level of acceptance towards safety & security with Coimbatore junction	Male	201	124.92		
	Female	49	127.87	0.066	0.797
	Total	250			
Level of acceptance towards punctuality with Coimbatore junction	Male	201	129.33		0.088
	Female	49	109.80	2.908	
	Total	250			
Level of acceptance towards behavior of staffs with Coimbatore junction	Male	201	127.20		
	Female	49	118.53	0.572	0.450
	Total	250			
Level of satisfaction towards facilities at the sub-urban stations with Coimbatore junction	Male	201	124.61		
	Female	49	129.14	0.158	0.691
	Total	250			

H01: There is no relationship between gender and satisfaction towards responsibility of railway officers (0.000), basic facilities provided (0.000), hygiene factors (0.000), safety & security (0.000). There is no relationship between gender and level of satisfaction of passengers with Coimbatore junction (0.089), level of acceptance towards punctuality (0.088), behavior of staffs (0.089), facilities at the sub-urban stations (0.450).

COMPARISON BETWEEN GENDER AND FACTORS RELATED TO SERVICE PROVIDED BY ERODE JUNCTION

H09: There is no relationship between gender and level of satisfaction of passengers with Erode junction

	Gender of the respondents Coimbatore junction	in N	Mean Rank	Chi-square value	Sig
Level of satisfaction of passengers with Erode junction	Male	175	118.93	4.914	0.027
	Female	75	140.82		
	Total	250			
Satisfaction towards responsibility of railway officers with Coimbatore junction	Male	175	115.54	11.230	0.001
	Female	75	148.74		
	Total	250			
Level of acceptance towards basic facilities provided with Erode junction	Male	175	131.04	3.466	
	Female	75	112.57		0.063
	Total	250			
Level of acceptance towards hygiene factors with Erode junction	Male	175	130.19	2.506	0.113
	Female	75	114.55		
	Total	250			
Level of acceptance towards safety & security with Erode junction	Male	175	121.43		0.170
	Female	75	134.99	1.881	
	Total	250			
Level of acceptance towards	Male	175	129.77	2.058	0.151

Volume 13, No. 3, 2022, p. 1182 - 1192 https://publishoa.com ISSN: 1309-3452

punctuality with Erode junction	Female	75	115.54		
	Total	250			
Level of acceptance towards behavior of staffs with Erode junction	Male	175	126.32		
	Female	75	123.59	0.076	0.783
	Total	250			
Level of satisfaction towards facilities at the sub-urban stations with Erode junction	Male	175	136.63		
	Female	75	99.53	14.365	0.000
	Total	250			

There is a relationship between gender and level of satisfaction of passengers with Erode junction (0.027), satisfaction towards responsibility of railway officers (0.001) and level of satisfaction towards facilities at the sub-urban stations (0.000).

H011: There is no relationship between gender and level of acceptance towards basic facilities provided in Erode junction (0.063), acceptance towards hygiene factors (0.113), acceptance towards safety & security (0.170), punctuality (0.151), behavior of staffs (0.783),

FINDINGS

Female passengers (140.82) have higher impact towards level of satisfaction of passengers with Erode junction.

Female passengers (148.74) have higher impact towards responsibility of railway officers with in Erode junction.

Male passengers (136.63) have higher impact towards satisfaction with facilities at the sub-urban stations with Erode junction.

SUGGESTIONS

Based on the research findings the passengers feel that toilets can be kept clean as the government is planning to introduce a scheme named "Swachh Rail" the driving force behind the government's flagship "Swachh Bharat Abhiyan" or Clean India campaign (Budget 2015).

The passengers don't have awareness about safety measures provided by southern railway department. It shows that the railways will make the people aware about the various safety measures such as Railway Protection Force (RPF), Internet Protocol based Close Circuit Television (CCTV) surveillance system with video analytics and recording facility, Access control, Personal and baggage screening system, Bomb Detection and Disposal System etc. (Indian railways, Fact sheet 2013).

The study revealed that they are highly dissatisfied on occupancy of coach toilets by unauthorized vendors. As per the government norms (No. 98/TG-V/12/1, Dated 11.9.1998) the occupancy should be strictly prohibited by the Conductors and TTEs in the train (Section 155(I) of Railway Act, 1989). For this purpose additional employees can be added to prevent the occupancy in trains.

CONCLUSION

The conclusion is that the level of satisfaction of passengers Booking Clerk Competency & Behaviour, Unauthorized Vendors& Passengers, Cleanliness of Platforms, Safety, Linen/Bedroll Cleanliness is higher with Coimbatore when compared to Erode. The passengers are dissatisfied with Coach/Toilets occupied by Unauthorized Passenger & Vendors, Cleanliness of Toilets/Coaches, Availability of Quality & Quantity of Food made, Clarity of Announcement at Stations, and Service quality with both Coimbatore and Erode junction and these factors should be given more importance in future. One a whole when compared to Erode the service provided by Coimbatore junction is been good and Erode junction needs an improvement towards the service in near future for betterment of service.

REFEENCES

- Agrawal, R. (2008). Public transportation and passenger satisfaction. Global Business Review 9(2) 257-272.
- Crompton, J. L., MacKay, K. J., & Fesenmaier, D. R. (1991). Identifying dimensions of service quality in public recreation. Journal of Park and Recreation Administration, 9(3), 15-27.
- CzepieI, J. A. 1990. Service encounters and service relationships Implications for research. Journal of Business Research 20 13-21.
- David A. Freedman (2009). Statistical Models Theory and Practice. Cambridge University Press. p. 26. A simple regression equation has on the right hand side an intercept and an explanatory variable with a slope coefficient. A

Volume 13, No. 3, 2022, p. 1182 - 1192 https://publishoa.com ISSN: 1309-3452

multiple regression equation has several explanatory variables on the right hand side, each with its own slope coefficient

- Donabedian, A. 1980. Explorations in Quality Assessment and Monitoring. Vol ume 1, The Definition of Quality and Approaches to Its Assessment. Ann Arbor, Michigan Health Administration Press.
- Ekinci, Y. 2003. An investigation of the determinants of passenger satisfaction. Tourism Analysis 8(2) 193-196.
- Gleave, S. D., (2000) Rail Passenger Quality of Service Valuation, London.
- Hallowell, R. (1996). The relationships of passenger satisfaction, passenger loyalty, and profitability an empirical study. International journal of service industry management, 7(4), 27-42.
- Olshavsky, R. W., & Miller, J. A. (1972). Consumer expectations, product performance, and perceived product quality. Journal of marketing research, 19-21.
- Olson, J. C., & Dover, P. (1976). Effects of expectation creation and disconfirmation on belief elements of cognitive structure. Advances in consumer research, 3(1), 168-175.