

## Evaluating the Service Quality of Egypt National Railways from Tourists Perspective

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### Abstract

Transportation has been an integral part of the tourism industry as it links tourists with various touristic attractions. Tourism expands more when there are better transportation systems. The purpose of this study is to evaluate the quality of the service provided by Egypt national railways to domestic tourists in railways going from Cairo to Luxor, and present recommendations accompanied by suggested implications to achieve more improvement in the area of service quality. A questionnaire was distributed to a sample of 423 domestic tourists who have traveled on trains from Cairo to Luxor. The Quantitative method and deductive approach were employed in this research to find out the answers for the research questions and achieve its objectives. Findings indicated that most of the services provided in station facilities, train facilities and over night train accommodation were not satisfactory and were inconvenient. The study recommended that in order to enhance the quality of service they should include improvements in reservation, station improvements, reliability and punctuality, customer service, cleanliness, catering and communication facility.

**Key words:** Railway Transportation, Service Quality, Tourist Satisfaction and Travel Experiences

### Introduction

Transport is considered as an essential part of the tourism industry (Bramo, 2013).The transport sector is one of the main drivers for social and economic development in Egypt(Korkor,2014).The growth in transportation services provided share synergies with growth in tourism and vice versa (Duval,2007). Tourism and transportation are inextricably linked, and as world tourism increases, additional demands will be placed on the transportation sectors (Goeldner and Ritchie).The railway has special importance because of its safety, travel time , punctuality , flexibility , price and comfort (Duval ,2007) which are essential elements that facilitate the tourism accessibility for tourists.

The rail service provided to domestic tourists traveling from Cairo to Luxor should be of sufficient quality as to attract and sustain repeated use. The retention of tourists is also a critical indicator of future economic activity (Blešić et al., 2011). In addition, quality of service is related to tourists' satisfaction, which is the fulfillment of the wants, needs, and expectations of tourists, which create customer loyalty to the product or service offered and leads to repeated tourists visit (Swarbrooke and Horner, 2006)

Thus, with respect to continuing to develop the tourism sector emphasis should be given to the assessment of tourist satisfaction pertaining to the quality of service provided. (Chi Hau and Omar, 2014)

### Study objectives

The objectives of this study are

- Identifying the weak points that need to be enhanced in the station facilities, train facilities, over night train accommodation.
- Identifying the level of satisfaction of domestic tourist in their journey from Cairo to Luxor.
- Providing an overview of the quality of service provided in Egyptian railways to domestic tourists.
- Providing a further contribution for improvement of Egyptian railways.

## Literature review

### Railway Transportation

Rail transport is considered as an essential part of the tourism industry as, it is a method that facilitates the movement of tourists to be able to see the attractions of another destination (Bramo,2013) . Ali 2012 stated that the first railway road was made in Egypt on 12<sup>th</sup> July 1851, and started working after the Suez Canal opening ceremonies in 1854 during the ruling period of khedive Ismail Pasha

In 1853, the first part of this railway between Alexandria and Kafr-el-Zayat was opened and this line was completed from Alexandria to Cairo two years later; it was the first in Africa and Middle East. The line south was extended further upriver from Assiut reaching Girga in 1892, Nag Hammadi in 1896, Qena in 1897 and Luxor and Aswan in 1898(Egyptian National Railways, 2017 ).

The criteria that affect tourists' choices of railways are travel time which includes the travel to and from the station, waiting time in the station, actual travel time, and exit time from the station to last destination (Ali, 2012 ; Almoherz et.al, 2016) .The travel cost is composed of the fare and arrival /exit costs (Adler et al. 2010). Comfort: is the well-being of a person or absence of mechanical disturbance in relation to the induced environment such as motions, temperature, noise, seating characteristics (Almoherz et.al, 2016). Distance: the duration that the train takes from to the destination (Mammadov, 2012) Safety: making sure that it is safe. Information provision and behavior of the personnel (Antoniou and Tyrinopoulos, 2013).Hence train plays important role in enriching the travel experience of a tourist if the service provided is fulfilled.

### Service quality

Eraqi, (2006) defined service quality as a philosophy overwhelmed the organization management it is a continuous improvement so as to retain tourists and fulfill their level of satisfaction whereas Kleynhans, and Zhou, 2012 have conceptualized service quality as the overall impression of customers towards the weakness or supremacy of service offered to them.

Masarrat, (2012) indicated that tourism has three basic components which are transport, locale and accommodation. A tourist, in order to get to his destination, has to travel and, therefore, some type of transport is necessary to be enriched with good facilities and services. Measuring service quality for public transport has two dimensions: the first would be objective dimension, whereby, service quality is objectified in performance indicators such as frequency and speed while the subjective dimension measures service quality through consumer judgments (Mouwen and Rietveld, 2013).

Eraqi (2006) stated that it is essential to involve the tourist in internal operations by acquiring customer feedback into improving tourism product/service or process quality and placing customers on internal teams, although it will be easy to anticipate and tailor product/service according to what exactly customers' demand characteristics. Thus, it is essential that the emphasis should be given on the assessment of tourist satisfaction pertaining to the service quality provided (Chi Hau and Omar, 2014).

### Tourist satisfaction and travel experiences

Tourists' satisfaction with a trip is the result of many aspects, such as their perception of product elements experienced as well as their expectations before- and during the trip (Prebensen, 2004). Tourist satisfaction, as defined by Thaothampitak and Weerakit (2010), is what a tourist feels about the service after experiencing it. Kozak and Rimmington (1999) stated that tourist satisfaction is an important factor in managing marketing campaigns as tourists are the most important marketers of their experiences. Moreover,

Suzuki (2004) indicated that tourists with poor service experience would share it with seven to nine friends at least. Heidi et.al. (1999) found that providing good on board meals and services could generate positive word of mouth among the tourists which will have an impact on their purchase behavior for the trip opportunity. Do Valle. et.al. (2006) stated that assessing satisfaction can help tourism service providers improve their services. Thompson and Schofield (2007) showed that tourists' evaluation of public transport performance slightly influenced their satisfaction with the destination. Xia et al., (2009) viewed satisfaction as an important research topic by practitioners and academics. Aliman et.al. (2016) indicated that tourists' comments, complaints and suggestions are invaluable source of ideas for improvements and innovations. Hence, it is necessary to have a detailed knowledge of the level of services provided in order to satisfy them (Masarrat, 2012). Therefore, it is necessary to evaluate the onboard service and the service provided in railway station that are considered main elements in tourists travel experience to be able to enhance it. Thereby it is essential for tourism management authorities to understand the main factors causing satisfaction/dissatisfaction for the tourist (Masarrat, 2012).

### **Conceptual model and Research questions**

The above-mentioned issues and the research problem have raised the following questions for the research.

Question 1 Is the level of service provided to domestic tourists going from Cairo station to Luxor satisfactory?

Question 2 What are the pros and cons of the services provided by Egypt national railways?

Question 3 is the level of overall tourists' satisfaction of railways services correlated to their decision to revisit Luxor again by using rail transport ?

Question 4 Is there a correlation between the level of service provided to the domestic tourists (Station Facilities - Train facilities- overnight train accommodation) and their willingness to revisit Luxor by using the same means of transportation?

### **Research methodology**

A quantitative data collection methodology was used by randomly distributed questionnaires to 423 domestic tourists travelling from Cairo to Luxor on sleeper trains between 22<sup>nd</sup> January, 2017 and 24<sup>th</sup> May, 2017.

The questionnaire consisted of 4 sections: the first section concerned with the station facilities, the second section emphasized train facilities. The third section focused on overnight train accommodation and the fourth section investigated tourist satisfaction. This questionnaire was obtained from service quality report by Arup (2010). A 5-point Likert scale was used and respondents were asked to rate the level of service using the following response categories: (5) highly satisfied (4) satisfied (3) neutral (2) dissatisfied (1) highly dissatisfied.

The researcher checked that the returned questionnaires were answered properly and completed were 423 that were suitable for statistical analysis.

### **Results and discussion**

#### **Reliability and validity**

The reliability of the measured items was assessed using Cronbach's alpha. A Cronbach's alpha estimate of 0.70 or higher indicated that the measurement scale that was used to measure the construct is moderately reliable (Fornell and Larcker, 1981). The following table (1) shows the reliability and validity of the measured items.

Table 1: Reliability and validity

Dimensions	Reliability	Validity
Station facilities	0.928	0.997
Train facilities	0.957	0.997
Overnight train accommodation	0.938	0.997
Satisfaction	0.970	0.997

Source : made by the researcher

The previous results indicate that measured items were considered reliable and valid where internal consistency among the items (between 0.928 and 0.970) and validity of the overall scale 0.997.

### Checking levels of service provided to tourists going from Cairo station to Luxor Station facilities

Table 2: levels of Station facilities

Station facilities	HD %	DS%	N%	S%	HS %	MEAN %	STD. DEV. %
Ease of buying tickets	2.2	3.1	47.5	17.9	29.1	3.6861	1.00006
Provision of information about train times	16.1	13.9	24.7	14.8	30.5	3.2960	1.44020
Provision of information about train platforms	5.4	5.8	25.1	37.7	26.0	3.7309	1.07774
Upkeep/repair of station buildings	26.0	9.9	31.8	23.3	9.0	2.7937	1.30230
Upkeep/repair of station platforms	32.7	39.5	14.3	8.1	5.4	2.1390	1.12444
information is clear and accurate.	36.8	12.6	13.0	27.8	9.9	2.6143	1.45941
Cleanliness of the station	29.1	37.7	15.2	9.9	8.1	2.3004	1.21713
Cleanliness of toilets at the station	14.3		30.9	44.8	9.9	3.3587	1.13761
Cafes at the station	8.5	17.0	28.7	33.2	12.6	3.2422	1.13686
Attitudes and helpfulness of the station staff	9.9	11.2	35.0	29.6	14.3	3.2735	1.14356
Connections with other forms of public transport (eg, bus, taxi, metro)	3.1	20.6	28.7	37.7	9.9	3.3049	1.00733
Personal security while using the station	22.9	31.4	18.8	9.9	17.0	2.6682	1.38109
Availability of staff	35.0	29.6	9.9	12.6	13.0	2.3901	1.40632
Station staff handling of requests	24.7	35.9	20.2	10.3	9.0	2.4305	1.22046
Management of delays (how well these were handled by the train company)	26.9	39.9	14.8	13.9	4.5	2.2915	1.13910
Clarity of announcement	28.7	33.2	14.8	9.0	14.3	2.4709	1.36817
Digital display	9.0	22.0	22.9	31.4	14.8	3.2108	1.20265
ATM facility	9.9	13.5	20.2	28.7	27.8	3.5112	1.29400

Signage and coach indication board	17.9	37.7	25.6	12.6	6.3	2.5157	1.11439
station based window servicing vendors	24.7	26.9	20.2	16.1	12.1	2.6413	1.33440
Availability of porters and trolleys	23.3	35.0	24.2	9.9	7.6	2.4350	1.17175
Overall station environment	25.1	32.7	20.2	10.8	11.2	2.5022	1.28356

Source : made by the researcher

The results in table (2) indicate that the train passengers were not satisfied which is considered cons according to their responses and these preceding aspects need some improvements:

- Accuracy of information concerning train times
- Upkeep/repair of station buildings
- Upkeep/repair of station platforms
- -information is clear and accurate
- cleanliness of the station
- personal security while using the station
- availability of staff is in sufficient
- station staff handling of requests
- management of delays ( how well these were handled by the train company )
- clarity of announcements
- signage and coach of indication board not sufficiently available
- station based window servicing vendors
- availability of porters and trolleys
- over all station environments

On the other hand, results indicated that train passengers were satisfied with pros items which is illustrated in the following

- Provision of information about train platforms.
- cafes at the station
- connection with other forms of public transport ( eg, bus, taxi , metro )
- Ease of access (being able to get on and off)
- Cleanliness of toilets at the station
- Accuracy of digital display

In addition, tourists indicated that their level of satisfaction is moderate in the following items

- Ease of buying tickets
- Availability of ATM Facility
- Attitude and helpfulness of the station staff

**Train facilities**

Table 3 levels of train facilities

Train facilities	HD %	DS %	N %	S%	HS %	MEAN%	STD. DEV
Frequency of trains on that route	10.3	23.3	29.6	23.3	13.5	3.0628	1.19141
Punctuality/reliability (ie, train arriving/departing on time)	18.8	34.1	20.2	13.9	13.0	2.6816	1.28819
Length of time the journey	20.6	29.6	23.8	12.6	13.5	2.6861	1.30147

was scheduled to take (commercial speed/the travelling speed of the train)							
Value for money (for the price of the ticket)	17	26.9	29.6	12.1	14.3	2.7982	1.26974
Upkeep and repair of the train	23.8	39.0	6.7	15.7	14.8	2.5874	1.38857
Provision of information during the journey ,in case of delay	26.5	41.7	21.5	8.1	2.2	2.1794	.98828
Ease of access (being able to get on and off)	9.9	11.2	23.3	34.1	21.5	3.4619	1.22553
Cleanliness of the inside of the train	28.7	34.5	6.7	25.1	4.9	2.4305	1.27462
Cleanliness of the outside of the train	27.8	9.4	29.6	26.0	7.2	2.7534	1.30390
Good maintenance of rail cars	18.4	27.8	26.5	16.1	11.2	2.7399	1.25007
Helpfulness and attitude of staff on train	12.1	19.3	20.2	29.1	19.3	3.2422	1.29956
Personal security while on board	6.7	9.9	27.4	31.4	24.7	3.5740	1.15962

The results in table (3) indicate that the train passengers were not satisfied with the following train facilities which is considered a disadvantage according to their response and these preceding aspects need some improvements

- Punctuality/reliability (ie, train arriving/departing on time)
- Length of time the journey was scheduled to take (commercial speed/the traveling speed of the train)
- Value for money (for the price of the ticket)
- Upkeep and repair of the train
- Provision of information during the journey ,in case of delay
- Cleanliness of the inside of the train
- Shower facilities on board

On the other hand, results indicated that train passengers were satisfied with pros items, which is illustrated in the following

- Helpfulness and attitude of staff on train
- Personal security while on board

In addition, responses are mostly equal (moderate = satisfied and highly satisfied) in the following items

- Frequency of trains on that route

Moreover, responses are mostly equal (moderate = dissatisfied and highly dissatisfied) in the following items

- Cleanliness of the outside of the train
- Good maintenance of rail cars

**Levels of overnight train accommodation**

Table 4: levels of overnight train accommodation

Over night train accommodation	HD %	DS%	N%	S%	HS %	MEAN%	STD. DEV. %
Shower facilities on board	37.2	38.6	9.9	7.6	6.7	2.0807	1.17509
Sleeping compartments kept secure	7.6	7.2	36.8	38.1	10.3	3.3632	1.02135
Dinner and/or breakfast served is clean	8.1	29.6	30.5	15.2	16.6	3.0269	1.20030
Mobile charging facilities in your sleeping compartment	14.3	14.3	36.8	27.8	6.7	2.9821	1.12692
Cleanliness of Blanket and sheets	39.5	36.8	10.3	4.9	8.5	2.0628	1.21017
quality and price of the food selling on board	17.0	24.2	27.8	25.1	5.8	2.7848	1.16956
Bunks are stable and comfortable	5.4	25.1	26.6	29.6	14.3	3.2242	1.13659
Space for luggage on the train	7.6	20.2	30.0	26.0	16.1	3.2287	1.16892
Toilet facilities are appropriate	39.0	39.5	10.3	6.7	4.5	1.9821	1.08206

The results in table (4) indicate that the train passengers were not satisfied with the following over night train accommodation, which is considered cons according to their response, and these preceding aspects need some improvements

- Cleanliness of Blanket and sheets
- quality and price of the food selling on board
- Toilet facilities are inappropriate

On the other hand, results indicated that train passengers were satisfied with pros an item, which is illustrated in the following

- Bunks are stable and comfortable

Further more tourists indicated that their level of satisfaction is moderate in the following item

- Mobile charging facilities in your sleeping compartment
- dinner and/or breakfast served is clean

In addition, responses are mostly equal (moderate = satisfied and highly satisfied) in the following items

- sleeping compartments kept secure
- space for luggage on the train

**Levels of Satisfaction**

Table 5: levels of Satisfaction

Satisfaction	HD %	DS%	N%	S%	HS %	MEAN%	STD. DEV.
I am pleased that I decided to travel by train	11.2	34.1	17.5	24.2	13.0	2.9372	1.24684
Traveling by train exceeded my expectations.	12.1	33.2	20.2	24.7	9.9	2.8700	1.20290
I will speak highly of this train journey to my friends and colleagues.	17.5	32.3	17.0	20.2	13.0	2.7892	1.30676
Satisfied with service provided	15.7	30.9	30.5	11.2	11.7	2.7220	1.20203
I will revisit Luxor again by using rail transport	16.6	32.3	20.6	17.5	13.0	2.7803	1.28089

The results in table (5) indicate that the train passengers were not satisfied with the following, which is considered cons according to their response, and these preceding aspects need some improvements

- Deciding to travel by train
- Traveling by train exceeding their expectations.
- Speaking highly of train journey to their friends and colleagues.
- Revisiting Luxor again by using rail transport

On the other hand, results indicated that train passengers were satisfied with pros items, which are illustrated in the following:

- Service provided

**Results of correlation tests**

**Correlations between satisfaction level and revisiting Luxor again by using rail transport**

Table 6: Correlations between satisfaction level and revisiting Luxor again by using rail transport

		I will revisit Luxor again by using rail transport	satisfaction
I will revisit Luxor again by using rail transport	Pearson Correlation	1	.993**
	Sig. (2-tailed)		.000
	N	423	423
Satisfaction	Pearson Correlation	.993**	1
	Sig. (2-tailed)	.000	
	N	423	423

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Also according to the results there is a strong positive correlation between domestic tourists' satisfaction level and the their willingness to revisit Luxor again by using the same mean of transportation where  $r = 0.993$  and  $p$ . value equal 0.000 (significant correlation)

**Correlations among the service provided to the domestic tourists (Station Facilities - train facilities- overnight train accommodation) and their willing to revisit Luxor again by using train.**

Table 7: Correlations among the service provided to the domestic tourists (Station Facilities - train facilities- overnight train accommodation) and their willing to revisit Luxor again by using train

		I will revisit Luxor again by using rail transport	Station Facilities	train facilities	overnight train accommodation
I will revisit Luxor again by using rail transport	Pearson Correlation	1	.976**	.962**	.989**
	Sig. (2-tailed)		.000	.000	.000
	N	423	423	423	423
Station Facilities	Pearson Correlation	.976**	1	.986**	.984**
	Sig. (2-tailed)	.000		.000	.000
	N	423	423	423	423
train facilities	Pearson Correlation	.962**	.986**	1	.975**
	Sig. (2-tailed)	.000	.000		.000
	N	423	423	423	423
overnight train accommodation	Pearson Correlation	.989**	.984**	.975**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	423	423	423	423

\*\* . Correlation is significant at the 0.01 level (2-tailed).

According to the results shown in the previous table there is a strong correlation among the service provided to the domestic tourists(Station Facilities - train facilities- overnight train accommodation) and their willing to revisit Luxor again by using the same mean of transportation where  $r = 0.976$ ,  $0.962$ , and  $0.989$  and  $p$ . value equal 0.000 (significant correlation)

**Conclusion**

This paper aimed to evaluate the service quality of Egypt national railways and investigated the factors that may hinder domestic tourists from repeating their visit by the rail transport.

Results revealed that tourists were generally not satisfied with the services provided by Egypt national railways. Despite that, there are some positive points like accuracy of digital displays, availability of different ATM facility, personal security on board was satisfying, bunks were stable and comfortable and the staffs were helpful on train service.

In contrary, there are many weak points such as the insufficient number of staff available in the station which led to incapability of handling passengers' requests. Also, there is no provision on information in case of train delays and no management of it, punctuality of

train in arriving and departing on time, shower facilities on board is not available although passengers spend more than 10 hours in the train and could be more in case of delay, in addition to, cleanliness of blankets and sheets and the toilette facilities in board. All these previous cons need to be fixed in order to encourage tourists to repeat their visit to Luxor by using the same mean of transportation and to speak highly about their journey.

Respondents also had no intention to revisit Luxor by using rail transport as 32.3 were highly dissatisfied, and 16.6 % were not satisfied and there is a strong positive correlation between domestic tourists' satisfaction level and the their willingness to revisit Luxor again by using the same means of transportation where  $r = 0.993$  and p. value equal 0.000. Furthermore, there is a strong significant positive correlation among satisfaction and station facilities, train facilities, overnight train accommodation where  $r = 0.985, 0.975,$  and  $0.999$  and p. value equal 0.000. In addition, there is a strong correlation among the service provided to the domestic tourists(Station Facilities - train facilities- overnight train accommodation) and their willing to revisit Luxor again by using the same mean of transportation where  $r = 0.976, 0.962,$  and  $0.989$  and p. value equal 0.000.

### **Recommendations**

#### **For reservation**

- There should be a self -service ticket machine with a touch screen and different language facilities. They can sell train tickets complete with reservation for all main routes and they accept all sorts of credit cards.
- Booking the sleeper trains online through the website <https://enr.gov.eg> at any time not at least 24 hours in advance.
- Decrease the price of the ticket to encourage domestic tourism as the price for 1 family is considered high.

#### **Station improvements**

- Making longer platforms to allow more carriages to run
- Increasing passing loops, which allow trains to pass each other, whether in same or opposing direction. (Transport tool kit ,2017 )
- “electrification reduces the operating cost and allows faster acceleration, particularly of stopping trains, so there is less chance of holding non-stopping trains up” (Transport tool kit ,2017 )
- Adding extra tracks, particularly for lines that were singled as a cost saving measure. (Transport tool kit ,2017 )
- Hand trolleys should be available in the station
- Restricting entry to platforms to passengers only (Indian railways ,2017)
- Standardize speech, volume and equipment involved in the public announcement process.
- Availability of hand held security wands.

#### **Reliability and punctuality (arriving and departing on time improvements)**

- Establishing a number of dedicated teams across the Southern network to analyze data collected from its track quality trains to predict potential defects on the network even earlier, before they become faults that could lead to delays”( southern railways ,2017 ).

#### **Customer service improvements**

- Increasing the number of staff available in reservation, which will enable them to hand, requests.
- Improving customer information by maps and signage

- Informing the passengers in case of delays and there should be a compensation
- "Information outlets: passenger should be able to go to an "information booth" that just beams your local information as a file to your phone (through bluetooth/wifi). It should contain all major tourist places and authorized hotels/travel guides/taxis as curated by the local station master" (Indian railways ,2017)

### Cleanliness

- "new technology should be used for creating highly hygienic toilets (Indian railways ,2017)
- Improving the waste disposal system inside trains.
- Improving the Cleanliness level of blankets and sheets
- Shower facilities should be provided on board at least 1 in each coach

### Catering

- Making agreements with other catering companies to improve the food service and quality.

### Connection facilities

- Wi-Fi connectivity should be available in sleeping trains
- Mobile charging porter should be provided on each cabin

### Limitations and Suggestions for future research:

With regards to the limitations, these research questionnaires were distributed only to tourists traveling from Cairo to Luxor .no consideration action was taken to measure the quality of service in trains going to other cities.

For future research, it is suggested that similar studies can be conducted on other trains going to different destinations, taking in to account the quality of food provided on board.

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