

Indian Postal Services Amidst Competitive Times - A Study of Rohtak & Bhiwani Districts of Haryana

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With 154,149 post offices and 5,64,701 letter boxes, Indian Postal Services has the most widely distributed post office system in the world. It is competing with over 3,000 companies operating in the courier and express sector. Today India Post offers wide range of Postal services (like speed post, passport application deposit, telefax, electronic money transfer, Internet kiosks, single counter eBill post and data post) as well as Non postal services. An attempt has been made in the present study to determine the factors that are considered important for imparting satisfaction regarding Indian Postal services Analysis of Variance has been used to check any significant relationship between the factors (obtained from Factor analysis) and various demographic variables.

Indian Postal Service

Before the emergence of telecom and Internet as the preferred mode of communication, Indian Post used to be one of the prominent pillars of the country's communication infrastructure [1]. Still Indian Post delivers 1,575 crores mails every year linking every nook and corner of the country. The Indian Postal Service, with 154,149 post offices and 5,64,701 letter boxes, is the most widely distributed post office system in the world (China is next, with 57,000) [2]. Out of these 8,263 post offices are computerized and the government plans computerization of 64,000 branch post offices in the rural areas and 17,878 departmental post offices during the 11th Plan period [3]. Today India Post offers wide range of services like speed post, passport application deposit, telefax, electronic money transfer, Internet kiosks, single counter eBill post and data post, to name just a few of them [4]. One can even buy mutual funds and bonds, encash foreign travelers' cheques, receive money from overseas, withdraw money from an ATM, get a loan against his postal savings or buy saving certificates such as National Savings Certificates (NSC) through the Internet! Soon Post Office Savings Bank (POSB) account holders will be able to obtain India Post debit cards. India Post has recently joined hands with Master Card International to offer customers a prepaid card initially, and later, a debit card. The services can be bifurcated into two types: Postal & Non postal services.

Postal Services	Non-Postal Services
<ul style="list-style-type: none">• Speed Post• Logistics Post• Direct Post• ePayment• Business Post• Postal Life Insurance• E-Post• Instant Money Order Service (IMO)• International Money Transfer• Media Post	<ul style="list-style-type: none">• Kisan Vikas Patra• Monthly Income Scheme• National Savings Certificate• Public Provident Fund• Recurring Deposits• Savings Bank Account• Senior Citizen Saving Scheme• Time Deposits

Service Quality Measurement

Service Quality in context of Postal Services can be defined as the excellence of services provided by all the components of the Indian Postal Services. The conceptualization and measurement of service quality perceptions have been the most debated and controversial topics in the services marketing literature to date [5]. However, in the literature there has been considerable progress as to how service quality perceptions should be measured [6-13]. The service quality (SERVQUAL) scale developed in an attempt to measure the perception of quality of service quality has been gaining momentum in application among various service sectors [14]. This scale has undergone several revisions, extensions and modifications to suit different sector's needs and has been validated in all studies.

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Although there is no rigorous survey available for support, it is widely held that the reliability and speed of the Indian postal service is acceptable [15]. The review of literature provides the deep insight on various aspects of the service quality, however, scarcely any study have been taken up to ascertain service quality measurement in Indian Postal Services. Hence, the present study attempts to analyze the level of service quality provided by the Postal Services of Bhiwani and Rohtak districts (Haryana).

Objectives & Research Methodology

Objectives of the study

1. To determine the factors that are considered important while ascertaining service quality in Indian Postal Services.
2. To determine whether these factors are affected by the demographics of customers.

Locale of the study

In present study Bhiwani & Rohtak districts of Haryana State are taken. The study was conducted in the four months Jan-Apr 2011.

Sampling and Sample size

A descriptive study was conducted to achieve the objectives. Judgmental sampling method was followed. Five post offices each from Rohtak and Bhiwani were taken. Overall 200 respondents were contacted in post offices and requested for providing information by filling questionnaires. Thirteen schedules were rejected due to inadequate or erroneous information provided by them. Thus analysis was conducted on 187 respondents.

Survey Instrument

Well-structured questionnaire was developed for conducting the study. The questionnaire had two sections. First section contained questions regarding demographic profile of tourist while second section contained a list of 15 statements pertaining to various attributes of tourist destinations. The attributes and statements were collected from literature review. Respondent has to just tick one parameter of each

statement depending on whether respondent feel that statement 'Strongly Disagree' (score 1), 'Disagree' (score 2), 'Neutral' (Score 3), 'Agree' (Score 4) or "Strongly Agree' (score 5). Thus higher mean score implies respondent's Satisfaction on that particular statement. The schedule was pre-tested on sample of 20 respondents and was found suitable.

Hypothesis

Overall Satisfaction of a customer depends on his/her psychological, social and economic characteristics; hence it can be thought of that different customers give different weightage to the various factors on the basis of their socio-economic background. Hence following Null Hypothesis have been formulated:

H0 (1): There is no significant relationship between age of respondent and the different factors that he/she consider important while ascertaining quality of postal services.

H0 (2): There is no significant relationship between gender of respondent and the different factors that he/she consider important while ascertaining quality of postal services.

H0 (3): There is no significant relationship between monthly family income of respondent and the different factors that he/she consider important while ascertaining quality of postal services.

H0 (4): There is no significant relationship between profession of respondent and the different factors that he/she consider important while ascertaining quality of postal services.

H0 (5): The choice of postal medium (Postal services or couriers) is significantly related with the different factors.

Respondent's Profile

Majority of the respondents was male (71 per cent). Age wise 54 per cent were from age 18-25 followed by age group of 26-33 (24.6 per cent). There were 68 percent respondents from urban background and rests were from rural background. 15.8 per cent were private employees, 30.6 per cent were government employees while almost equal proportion was of respondents having own business (25.7 per cent) and

others (28 per cent which include housewives, school going children and retired people). Among the respondents 58.5 per cent use Postal services mostly while others prefer to use courier for their work.

Data Analysis

Obj-1. To determine the factors that are considered important while ascertaining service quality in Indian Postal Services.

Factor analysis is a good way of identifying latent or underlying factors from an array of seemingly important variables. In a more general way, factor analysis is a set of techniques, which, by analyzing correlations between variables, reduces their number into fewer factors, which explain much of the original data, more economically. (Nargundkar, 2005)[16].

Table-1 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.709
Bartlett's Test of Sphericity	Approx. Chi-Square	596.362
	df	105
	Sig.	.000

Measures of Sample Adequacy such as Bartlett's test of sphericity (approx chi-square is 596.362, degree of freedom is 105, significance is 0.000) and KMO value (0.709) showed that data were fit for factor analysis. Principal Component analysis alongwith Varimax rotation method was used for extracting factors and five factors were retained on the basis of eigenvalues and variance explained. Eigenvalue represents the total variance explained by each factor. The standard practice normally used is that all the factors with an Eigen value of one or more should be extracted. Table-2 clearly shows that there are five factors having eigen values more than 1 (in other words, a factor must explain at least as much of the variance if not more, than a single original variable). Thus five factors have been extracted which cumulatively explained 61.025% of the total variance.

Rotation Sum of Squared Loading

Component	Total	% of Variance	Cumulative %
1	2.432	16.211	16.211
2	2.166	14.441	30.652
3	1.616	10.774	41.426
4	1.503	10.022	51.448
5	1.437	9.578	61.025

Extraction Method: Principal Component Analysis

All the statements with factor loadings greater than 0.40 were considered in the corresponding factor. The name of the factors, variable labels and factor loadings are summarized in Table-3 which clearly depicts that Factor 1 is linear combination of variable number 14, 6, 4 and 9. Factor 2 is linear combination of variable number 12, 13, 2 and 11. Factor 3 is linear combination of variable number 10 and 7. Factor 4 is linear combination of variable number 1 and 3. Factor 5 is combination of variable number 5, 8 and 15. After the number of extracted factors is decided, the next task is to interpret and name the factors. This is done by the process of identifying the factors that are associated with which of the original variables. The rotated factor matrix is used for this purpose.

Naming of Factors

All the factors have been given appropriate names according to the variables that have been loaded on each factor. The five factors are discussed below:

Factor-1: Services

The rotated matrix has revealed that respondents have perceived this factor to be the most important factor with the highest explained variance of 16.211%. Four out of fifteen service features load on significantly to this factor. This factor has been named as Services as it includes statements like Indian postal services provides extra services, these services are secure, reliable and have convenient working hours. Hence it can be concluded that Services is the most crucial factor considered by respondents. This factor represents the basic services provided by Indian postal department.

Table-3 Rotated Factor Analysis Matrix

		Factor Loading	Reliability
Factor -1 Service	14. Indian postal services provides extra service than courier service	.783	.7241
	6. Indian postal services are secure as compare to courier service	.716	
	4. Indian postal services are reliable than courier services	.690	
	9. Operating hours of Indian postal services are convenient than courier services.	.669	
Factor-2 Tangibility	12. Indian postal service uses new technology as compared to Courier services.	.743	.6618
	13. Indian postal services are easily accessible than Courier services.	.722	
	2. Physical appearance is attractive at Indian post office as compared to courier office	.620	
	11. You've to wait long while availing Indian Postal services.	.568	
Factor-3 Reliability	10. Indian postal services provide an error free records rather than courier services	.736	.6176
	7. Delivery Speed of Indian postal service is better than Courier service.	.635	
Factor-4 Reputation	1. Indian postal service is economic than courier service	.730	.5560
	3. Indian postal services have good Reputation rather than Courier services	.570	
Factor-5 Employee Behaviour	5. Employees of Indian postal services have full knowledge to fulfill customer's requirement than Courier services.	.675	.5068
	8. Indian postal employees willingly helps the customers rather than courier services employees	.644	
	15. The behaviour of Indian postal employees are polite & friendly towards customers.	.450	

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 8 iterations.

Factor-2: Reliability

This is the next important factor, which accounts for 14.441% of the variance. Four statements load high on to this factor. Indian postal services use new technology, are easily accessible, have attractive physical infrastructure are included in it and thus this factor has been names as Tangibility.

Factor-3: Reliability

This is the next important factor, which accounts for 10.774% of the variance. Two features load high on to this factor. Indian postal services provide error free records and have better delivery are included in it and thus this factor has been names as Reliability.

Factor-4: Reputation

Two types of features load on this factor and together account for 10.022% of the variance. This factor includes option that Indian postal service is economic than courier and postal services have better Reputation than courier services and thus the name Reputation has been assigned.

Factor-5: Employee Behaviour

Three types of features load on this factor and together account for 9.578% of the variance. This factor includes options that employees of Indian postal services have full knowledge, they are willingly helps the customers and have polite &

friendly behaviour towards customers thus the name Employee Behaviour has been assigned.

OBJ-2: To Determine the Effect of Demographic Variables On the Factors.

For achieving this objective Null Hypothesis that 'there is no significant relationship between the Demographic variables and the factors' was taken and One way analysis of variance was used. Mean score was calculated for factors where significant relationship between independent and dependent variables (Factors) was observed.

1. Effect of Age on factors:

Null hypothesis H0 (1) is rejected as Age is found to be significantly related to three factors Services, Tangibility & Reliability.

Table 4: ANOVA between Age and various Factors

Between Groups					
	Sum of Squares	df	Mean Square	F	Sig.
Services	45.816	3	15.272	20.074	.000
Tangibility	23.431	3	7.810	8.817	.000
Reliability	15.180	3	5.060	5.429	.001
Reputation	4.573	3	1.524	1.538	.206
Employee Behaviour	6.862	3	2.287	2.338	.075

For detailed analysis mean scores of factors were compared. Respondents of age category 34-41 were found to be more satisfied with Services but not satisfied with Tangibility and Reliability, while respondents of age category 18-25 were more satisfied with Tangibility & Reliability. The difference in their preference can be understood by stage of life cycle of the respondent. Every age group has different responsibilities as well as objectives. Hence importance of factors also changes with time.

Table-5 Descriptives Mean Score of Various factors on the basis of Age

Mean		
Services	18-25	-.3509062
	26-33	.0074083
	34-41	.6141467
	42 & Above	1.1949592
Tangibility	18-25	.1458214
	26-33	.2323709
	34-41	-.3811816
	42 & Above	-.9382333
Reliability	18-25	.0987263
	26-33	.0031306
	34-41	-.7611824
	42 & Above	.3372248

2. Effect of Gender on factors:

Null hypothesis H0 (2) is partially rejected as it was observed that there is a significant relationship between the views of males & females with two factors Reputation & Employee Behaviour.

Table 6: ANOVA between Gender and various Factors

Between Groups					
	Sum of Squares	df	Mean Square	F	Sig.
Services	3.037	1	3.037	3.072	.081
Tangibility	.136	1	.136	.136	.713
Reliability	.332	1	.332	.331	.566
Reputation	7.296	1	7.296	7.558	.007
Employee Behaviour	9.933	1	9.933	10.448	.001

From the descriptive analysis it is evident that the males are more satisfied with Reputation of postal services as well as employee behaviour. The reasons for this may be that in Indian families' males have the responsibilities of going to post offices and for that they have to interact with the employees there.

Table 7: Descriptives Mean Score of various factors on the basis of Gender

Mean		
Reputation	male	.1274884
	female	-.3127074
Employee Behaviour	male	.1487554
	female	-.3648717

3. Effect of Monthly Family Income on factors:

Null hypothesis H0 (3) is also rejected as it is observed that three factors Services, Tangibility and Employee Behaviour are significantly related with monthly family income of respondents.

Table 8: ANOVA between Income and various Factors

Between Groups					
	Sum of Squares	df	Mean Square	F	Sig.
Services	22.089	3	7.363	8.242	.000
Tangibility	10.136	3	3.379	3.519	.016
Reliability	1.805	3	.602	.598	.617
Reputation	2.178	3	.726	.723	.540
Employee Behaviour	8.968	3	2.989	3.093	.028

Table 9: Descriptives Mean Score of various factors on the basis of Income

Services	Below Rs.10000	-.3182322
	Rs.10001-20000	-.2028447
	Rs.20001-30,000	.0534791
	Above 30,001	1.0246740
Tangibility	Below Rs.10000	.3367137
	Rs.10001-20000	.1784831
	Rs.20001-30,000	-.1512195
	Above 30,001	-.4723566
Employee Behaviour	Below Rs.10000	.0494569
	Rs.10001-20000	.0261573
	Rs.20001-30,000	.1066959
	Above 30,001	-.7056255

Descriptive mean analysis suggests that respondents with income category more than Rs 30,001 are highly satisfied with the Services. The reason for the same is these people use mostly customized services like business post. However they were not satisfied with Tangibility and Employee Behaviour. Respondents with income category Rs 20,001-30,000 have reported satisfaction towards to Tangibility and Employee Behaviour. Respondents of low income category of below Rs 10,000 are satisfied with Tangibility and somewhat with Employee Behaviour but they are not satisfied with Services.

4. Effect of Profession on factors:

Null hypothesis H0 (4) is rejected as it is observed that three factors Services, Tangibility and Reputation are significantly related with monthly family income of respondents.

Table 10: ANOVA between Profession and various Factors

Between Groups	Sum of Squares	df	Mean Square	F	Sig.
Services	9.845	3	3.282	3.412	.019
Tangibility	7.808	3	2.603	2.675	.049
Reliability	5.844	3	1.948	1.979	.119
Reputation	8.165	3	2.722	2.803	.041
Employee Behaviour	2.326	3	.775	.772	.511

Table 11: Descriptives Mean Score of various factors on the basis of Profession

Mean		
Services	Pvt Employee	.4855166
	Govt Employee	.0460581
	Own Business	-.1952809
	Others	-.1466869
Tangibility	Pvt Employee	-.3569406
	Govt Employee	-.1089535
	Own Business	.2550735
	Others	.0875338
Reputation	Pvt Employee	.2636004
	Govt Employee	-.1104879
	Own Business	.2306639
	Others	-.2411431

Descriptive mean analysis suggests that private employees are highly satisfied with the Services. Though they were not satisfied with Tangibility and Employee Behaviour. Government employees are somewhat satisfied with Services but again they were not satisfied with Tangibility and Employee Behaviour. There is a special point that in majority of government officer private couriers is not accepted; hence they are bound to use postal services. Respondents having own business and belonging to other category are not satisfied with Services; hence they use courier companies. They however, reported their satisfaction towards Reputation and Tangibility.

5. Effect of Medium Used on factors:

Null hypothesis H0 (5) is also rejected as it is observed that except one factors (Services) all factors are significantly related with medium of communication used by the respondents.

Table 12: ANOVA between Medium of postage used and various Factors

Between Groups	Sum of Squares	df	Mean Square	F	Sig.
Services	3.009	1	3.009	3.043	.083
Tangibility	5.063	1	5.063	5.179	.024
Reliability	9.119	1	9.119	9.547	.002
Reputation	3.392	1	3.392	3.438	.065
Employee Behaviour	3.880	1	3.880	3.943	.049

Table 13: Descriptives Mean Score of various factors on the basis of Medium of postage used

Mean		
Tangibility	Indian postal service	.1401839
	Courier service	-.1973642
Reliability	Indian postal service	.1881314
	Courier service	-.2648692
Employee Behaviour	Indian postal service	.1227164
	Courier service	-.1727718

Descriptive mean analysis suggests that respondents using Indian Postal Services reported high satisfaction towards all factors viz. Tangibility, Reliability, Reputation and Employee Behaviour.

The reasons for these patterns of responses may be that Indian Postal Services are standardized but since there are more than 3,000 courier companies working in India, their practices are not standardized. Except for the leading, large courier companies, most of the couriers have no organised system of delivery [18]. There are some companies having brand names and reliability; at the same time there are other companies which provide economic services but are not reliable.

Discussion

The present study was undertaken with the objective of determining the factors that are considered important by the respondents while availing Postal Services. The two options available for postage services are Indian postal and Courier. Factor analysis suggests that there are five factors namely: Services, Tangibility, Reliability, Reputation and Employee Behaviour, that respondents deem important. All factors cumulatively explain 61.025% of the total variance which is considered good in social sciences.

The first factor **Services** involves assertions like Indian postal services provide extra service than courier service, these services are secure, reliable and having convenient operating hours. Majority of citizens treat post offices as part of their everyday life and perceive them as receptacles of public trust [19]. Indian Post Officers are not only providing postal services but are serving Non Postal services. The post office savings bank is the largest savings bank in the country in

terms of its network. It operates more than 16.43 crore accounts with deposits of about Rs 3.5 lakh crore [20]. The second factor **Tangibility** is the sum total of respondent's perception about uses new technology as compared to courier services, they are easily accessible, their physical appearance is attractive and one has to wait long while availing services. Over the years, the face of Indian postal department has changed and the good thing is that it even planned a series of initiatives including rapid induction of information technology, introduction of logistics post air, tie-up with commercial banks and launch of new mailing and money-order schemes [21]. The third factor **Reliability** includes providing error free records and delivery speed of postal services is better. Despite the mushroom growth of courier services, still Indian postal services enjoy high reliability status. They are considered more credible than courier services. The fourth factor **Reputation** includes statements viz. postal services are economic and having good reputation. The fifth factor **Employee Behaviour** includes statements related to employees viz. Employees of Postal services are willing to help customers and their behaviour is polite and friendly towards customers.

The second objective was to identify whether there is any significant relationship between the various demographics (like gender, age, background, occupation and income) and the factors thus obtained. A brief summary of results is given in the table below:

Table 14: Summary results of ANOVA

Factors	Age	Gender	Income	Profession	Medium
Services	√	x	√	√	x
Tangibility	√	x	√	√	√
Reliability	√	x	x	x	√
Reputation	x	√	x	√	x
Employee Behaviour	x	√	√	x	√

(√) represents significant relation at 5% level of significance.

Respondents of age group 34-41 were found to be happy with Services of Indian postal services. This group feels Indian postal services are secure,

reliable and provide wide range of services across Pan-India. New initiatives from Postal department like Business post, Logistics post & Direct post.

Respondents of age group 31-42 and above as well as of income category Rs 20,000 and above were not satisfied with the latest technology (particularly tracing system of parcels), physical appearance of Indian postal services. Further they reported high waiting time for availing these services. Government employees & private employees were not impressed with tangibility aspects of postal department services. However, overall respondents of Indian postal services were found to be more satisfied than courier companies.

While middle age respondents (age group 34-41) were not very happy with the reliability of these services, above 42 age category respondents were quite happy with it. It may be because of their different need.

Women respondents were not satisfied with the reputation of Indian postal services, neither were Government employees happy with it. However, at times government employees are bound to use Indian postal services, at least for their official duties.

Women as well as higher income category (Above Rs 30,000) respondents were not satisfied with the employees behaviour of postage department. But overall this factor too got high score than employees of courier companies.

Overall, it can be concluded that though Indian postal department is rendering wide range of services, enjoy good reputation of being reliable, fast, secure but still there is a room for the improvement.

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