MEASURING CUSTOMER EXPERIENCE TOWARDS INTERNET BANKING SERVICE: A STUDY OF BANKS IN INDIA

Dr. Rajesh Shankar Sharma
Assistant Professor, Institute of Management, C/o DAV College, Chandigarh, India

Dr. Abhishek Misra
Assistant Professor, Institute of Management, C/o DAV College, Chandigarh, India

Dr. Arpit Khurana
Assistant Professor, Institute of Management, C/o DAV College, Chandigarh, India

ABSTRACT

Indian banking sector act as a backbone of the Indian economy. Most of the banks are offering contemporary services to its customers. Every bank is trying to maximize its profit by offering superior online services. An empirical study has been conducted to check the perception and satisfaction level of the customers towards internet banking. Study concludes that some demographic features like age, occupation, qualification are having significant impact on the perception level of respondents towards online services. There is significant association between superior online banking services and customer satisfaction.

Key words: Perception, Satisfaction, Service

Cite this Article: Rajesh Shankar Sharma, Abhishek Misra and Arpit Khurana, Measuring Customer experience towards Internet Banking Service: A study of banks in India, International Journal of Management (IJM), 11(12), 2020, pp. 3186-3193. http://www.iaeme.com/IJM/issues.asp?JType=IJM&VType=11&IType=12

1. INTRODUCTION

Indian banking sector consists of 27 public sector, 22 private sector, 44 foreign banks, 56 regional rural banks, 1589 urban cooperative banks, 93550 rural cooperative banks.(IBEF, 2018).

This sector has seen a tremendous change in the last decade with the introduction of information technology(Dai, 2018). Banks like HDFC are taking vital steps in keeping our environment clean and green. It has launched mobile banking, internet banking, offering online account statements, Insta alert etc. Traditional banking system is now shifting towards digital banking (Vinay Bagri, 2018).
Services can be seen as an activity/process that are tangible, homogeneous, inseparable, participation by customers (Shanker, 2002). Companies that are in the process of offering high perceived service quality (SERVQUAL) do have a competitive edge over its competitors. (Hamzah, Lee, & Moghavvemi, 2017)

2. PERCEPTION
Perception means “the consciousness of particular material things present to sense” Angell (1910). The senses are divided into five major groups viz Vision, hearing, touch, balance, taste/smell Mather (2006). From psychology perspective, it means mental organization and interpretation of sensory information Ingold (2002).

3. SATISFACTION
Customer satisfaction is a customers’ post consumption evaluation of a product or service Mittal and Frennea (2010). SERVQUAL is considered to be the most important factor having a positive impact on the performance of company and enhancing customer satisfaction(Caruana and Ewing (2010).

4. REVIEW OF LITERATURE
Internet banking is imperative for any bank to reduce the overall operating cost. This can lead to higher customer satisfaction and retention (Nui Polatoglu and Ekin (2001). Authors have concluded that there is a significant relationship between online customer service quality, online information system quality, banking service product quality, overall internet banking service quality and customer satisfaction (Rod, Ashill, Shao, and Carruthers (2009). Service quality can be divided into three categories i.e. customer service quality, banking service product quality and online system quality. Factors like Reliability, responsiveness, easy access and high accuracy are considered imperative for satisfaction (Jun,Cai 2001). Internet banking can lead to high customer convenience & flexibility (Singhal and Padhmanabhan (2008). Ease of usage decides the base for acceptance or rejection of internet banking (Wang, Wang, Lin, and Tang (2003). Perceived risk associated with the bank website can affect the consumer adoption of internet banking (Ankit, singh 2012).

5. RESEARCH METHODOLOGY
The present study aims at measuring the customer perception and satisfaction level towards online banking services. A non-probability convenience sampling is used. Responses are collected from 160 respondents living in different cities in Punjab, India. Total 4 banks are shortlisted for the research viz. HDFC Bank, Axis Bank, Punjab National Bank and Punjab & Sind Bank. 5 point likert scale ( 5 - Highly satisfied, 4- Satisfied, 3- Neutral, 2- Dissatisfied, 1- Highly Dissatisfied) is used to collect the data. An open ended questionnaire is distributed among the respondents. Each respondent is asked to tick at the appropriate response. The validity of the questionnaire is checked by the managers/intellectuals. Data is analysed through SPSS. Regression analysis, ANOVA, Factor analysis has been used to analyse the data.

| Table 1 Demographics |
|----------------------|
| **Profile** | **Description** | **Frequency** | **Percent** |
| Bank | | | |
| | Axis Bank | 38 | 23.8 |
| | PNB | 43 | 26.9 |
| | HDFC Bank | 41 | 25.6 |
| | P&S Bank | 38 | 23.8 |
Measuring Customer experience towards Internet Banking Service: A study of banks in India

|                | <3 yrs | 35 | 21.875 |
|----------------|--------|----|--------|
| Duration       | 3-6 yrs| 77 | 48.125 |
|                | 6+     | 48 | 30     |
| Gender         | Female | 49 | 30.625 |
|                | Male   | 111| 69.375 |
| Marital Status | Married| 107| 66.875 |
|                | Unmarried| 53 | 33.125 |
| Age            | 18-25  | 6  | 3.75   |
|                | 26-39  | 39 | 24.375 |
|                | 40-55  | 64 | 40     |
|                | 56-65  | 37 | 23.125 |
|                | >65    | 14 | 8.75   |
| Qualification  | Undergraduate| 26 | 16.25 |
|                | Graduate | 89 | 55.625 |
|                | Post Graduate | 45 | 28.125 |
| Occupation     | Business | 74 | 46.25 |
|                | Service | 86 | 53.75 |

Source: Primary data

The Demographic Impact is Measured on the Following Variables
- (FT) Online Fund transfer
- (OI) Online Investing
- (BP) Online Bill payment
- (WND) Website never down
- (ITP) Online Income Tax Payment
- (OFDB) Online FD Booking
- (SP) Online Stop Payment
- (OFB) Online FD Break
- (EOC) Easy Online Content
- (OI) Online Information available
- (FL) Faster Login
- (ESD) E-statement download
- (OTP) Online Third party Fund Transfer

6. RELIABILITY ANALYSIS
Reliability test using Cronbach’s Alpha is conducted to confirm the internal consistency of the responses. The value of Cronbach’s Alpha is .748 which falls within the range of .7 to 1. This fulfills the condition of reliability.

7. HYPOTHESIS
H_{01}: There is no significant impact of demographic features on perception level of respondents towards internet banking.

In order to test above mentioned hypothesis, we have tested following hypothesis using Two way ANOVA.
Ho: There is no significant impact of gender on perception level of respondents towards internet services.

The probabilities for FT, OI, BP, WND, ITP, OFDB, SP, OFB, EOC, OI, FL, ESD, OTP at F (1, 158) df(1) are .356, .510, .206, .536, .414, .796, .381, .760, .625, .560, .699, .257 and these values are >0.05, therefore at 5% level of significance, the null hypothesis is accepted. Hence, we can conclude gender as demographic factor has no significant impact on perception level of respondents towards various online services.

Ho: There is no significant impact of marital status on perception level of respondents towards internet services.

The probabilities for FT, OI, BP, WND, ITP, OFDB, SP, OFB, EOC, OI, FL, ESD, OTP at F (1, 158) df(1) are .256, .410, .267, .325, .521, .40, .706, .321, .660, .615, .199, .121. These values are >0.05, therefore at 5% level of significance, the null hypothesis is accepted. Hence, we can conclude marital status as demographic factor has no significant impact on perception level of respondents towards various online services.

Ho: There is no significant impact of duration of association with bank on perception level of respondents towards internet services.

The probabilities for FT, OI, BP, WND, ITP, OFDB, SP, OFB, EOC, OI, FL, ESD, OTP at F (2, 157) df(2) are .248, .367, .561, .294, .952, .372, .761, .703, .616, .709, .442, .385, .521 and these values are >0.05, therefore at 5% level of significance, the null hypothesis is accepted. Hence, we can conclude that duration of association has no significant impact on perception level of respondents towards various services mentioned above.

Ho: There is no significant impact of age on perception level of respondents towards internet services.

The probabilities for FT, OI, BP, WND, ITP, OFDB, SP, OFB, EOC, OI, FL, ESD, OTP F (4, 155) df(4) .001, .043, .031, .036, .001, .021, .040, .046, .042, .021, .026, .019, .035 and these values are <0.05, therefore at 5% level of significance, the null hypothesis is rejected. Hence, we can conclude that age factor has significant impact on perception level of respondents towards various services mentioned above.

Ho: There is no significant impact of qualification on perception level of respondents towards internet services.

At F (2, 157) df(2), the probabilities for FT, OI, BP, WND, ITP, OFDB, SP, OFB, EOC, OI, FL, ESD, OTP are .010, .003, .001, .006, .022, .011, .030, .016, .032, .041, .014, .021, .013 and these values are <0.05, therefore at 5% level of significance, the null hypothesis is rejected. Hence, we can conclude that qualification factor has significant impact on perception level of respondents towards various services mentioned above.

Ho: There is no significant impact of occupation on perception level of respondents towards internet services.

At F (1, 158) the p values for FT, OI, BP, WND, ITP, OFDB, SP, OFB, EOC, OI, FL, ESD, OTP are .016, .017, .006, .021, .023, .013, .025, .006, .008, .007, .022, .049, .046 and these values are <0.05, therefore at 5% level of significance, the null hypothesis is rejected. Hence, we can conclude that occupation factor has significant impact on perception level of respondents towards various services mentioned above.
Hypothesis: 2

Ho 2: There is no significant association between Online banking services experience & customer satisfaction

Factor analysis has been conducted over the 13 variables. Before going for the detail analysis, KMO and Bartlett’s test has been conducted to measure the sample adequacy and internal consistency. Small values of the KMO statistics indicate that the correlation between pairs of variables cannot be explained by other variables and factor analysis may not be appropriate. A value greater than .6 is acceptable. Value of .801 indicates that we can go ahead with factor analysis. A Bartlett’s test of Sphericity was conducted and taking into the account 95% level of significance or .05, the p-value (Sig.) received is .000 which is less than .05. Therefore the factor analysis can be used. As p < α, so the null hypothesis that correlation matrix is an identity matrix is rejected and alternate hypothesis is accepted showing that there is a statistical significant relationship between the variables.

| Component | Initial Eigenvalues | Total | % of Variance | Cumulative % | Extraction Sums of Squared Loadings | Total | % of Variance | Cumulative % | Rotation Sums of Squared Loadings | Total | % of Variance | Cumulative % |
|-----------|---------------------|-------|---------------|--------------|-----------------------------------|-------|---------------|--------------|-----------------------------------|-------|---------------|--------------|
| 1         | 3.966               | 3.966 | 30.505        | 30.505       | 3.966                             | 3.966 | 30.505        | 30.505       | 3.714                             | 28.572 | 28.572        |
| 2         | 1.707               | 1.707 | 13.133        | 43.638       | 1.707                             | 1.707 | 13.133        | 43.638       | 1.665                             | 12.810 | 41.382        |
| 3         | 1.080               | 1.080 | 8.307         | 51.946       | 1.080                             | 1.080 | 8.307         | 51.946       | 1.373                             | 10.564 | 51.946        |
| 4         | .962                | .962  | 7.398         | 59.343       |                                   |       |               |              |                                   |        |               |
| 5         | .946                | .946  | 7.274         | 66.617       |                                   |       |               |              |                                   |        |               |
| 6         | .847                | .847  | 6.512         | 73.129       |                                   |       |               |              |                                   |        |               |
| 7         | .687                | .687  | 5.286         | 78.415       |                                   |       |               |              |                                   |        |               |
| 8         | .643                | .643  | 4.944         | 83.359       |                                   |       |               |              |                                   |        |               |
| 9         | .565                | .565  | 4.344         | 87.703       |                                   |       |               |              |                                   |        |               |
| 10        | .480                | .480  | 3.694         | 91.398       |                                   |       |               |              |                                   |        |               |
| 11        | .450                | .450  | 3.458         | 94.856       |                                   |       |               |              |                                   |        |               |
| 12        | .356                | .356  | 2.735         | 97.590       |                                   |       |               |              |                                   |        |               |
| 13        | .313                | .313  | 2.410         | 100.000      |                                   |       |               |              |                                   |        |               |

Extraction Method: Principal Component Analysis.

Component column in the above table tells us the number of variables (13) used for factor analysis. The eigen value reflect the variance in the factors. Component with the eigen value of
more than 1 is retained. A total number of 3 factors have originated where the first factor display most variance along with the high eigen value. The next factor will account for as much of the left over variance as it can and the same will continue till the last factor. In this research total number of 3 factors explained 51% of variance under extraction sums of squared loadings.

Table 4 Rotated Component Matrix

| Component                  | 1     | 2     | 3     |
|----------------------------|-------|-------|-------|
| Fund transfer              | .622  |       |       |
| Investing                  | .633  |       |       |
| Bill payment               | .638  |       |       |
| Website never down         |       | -.768 |       |
| Income Tax Payment         | .511  |       |       |
| FD Booking                 |       | .721  |       |
| Stop Payment               |       | .567  | .567  |
| FD Break                   | .806  |       |       |
| Easy Online Content        | .532  |       |       |
| Information                | .749  |       |       |
| Faster login               | .521  |       |       |
| Download statement         | .810  |       |       |
| Third party FT             |       | .730  |       |

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

The Rotated Factor Matrix represents the rotated factor loadings, which are the correlations between the variables and the factors. In the above rotated component matrix, we have suppressed all the loading less than .4 and this is the reason for the blank spaces for many of the loadings. Percentage of variance explained under Rotation Sums of Squared Loadings:

- Factor-1 Core online Services 28.572
- Factor-2 Online Information 12.810
- Factor-3 Support Services 10.564

8. OVERALL SATISFACTION

Now we have ended up with three factors, we will measure its impact on the satisfaction level of the respondents. In order to measure the same, we have implemented multiple linear regression analysis. We have calculated the mean scores of the above mentioned three factors. These three factors have been taken as an independent variables and overall satisfaction level of respondents is taken as dependent variable. Overall Satisfaction level has been measured by using 5 point Likert scale (1 poor, 2 poor, 3 fair, 4 good, 5 excellent).
Measuring Customer experience towards Internet Banking Service: A study of banks in India

Table 5 Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | Sig. F Change |
|-------|---|----------|------------------|---------------------------|------------------|--------------|
|       | .699 | .489 | .479 | 7.148 | R Square Change | F Change | df1 | df2 | .754 | 1080.772 | 3 | 156 | .000 |

a. Predictors: (Constant), REGR factor score 3 for analysis 1, REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1

This model predicts overall customer satisfaction level. R denotes the correlation between online services & satisfaction level. In our case, R = .699. Since this is a very high correlation, our model predicts satisfaction rather precisely.

Table 6 Coefficients

| Model | Unstandardized Coefficients | Standardized Coefficients | T | Sig. |
|-------|-----------------------------|---------------------------|---|------|
|       | B | Std. Error | Beta | F1 | .459 | .008 | .938 | 54.685 | .000 |
| Core online Services F1 |      |          |     | .083 | .008 | .170 | 9.888 | .000 |
| Online Support Services F3 | .104 | .008 | .213 | 12.412 | .000 |

a. Dependent Variable: OVERALL SATISFACTION

Y = 3.435 + .459xF1 + .083xF2 + .104xF3

The b coefficients tell us how many units of overall satisfaction increases for a single unit increase in each predictor. If we see the impact of independent variables individually, we observe that first factor i.e. ‘Core online Service’ is having highest beta coefficient (.938) and t value (54.685) that are statistically significant at 5% level (95% level of confidence). Therefore, this factor is showing strongest positive impact on overall customer satisfaction followed by online information and support services. One thing to note here is that all b coefficients are positive numbers. This means that all the factors are associated with overall satisfaction. There is a significant relationship between Online banking services experience & customer satisfaction.

9. FINDINGS & CONCLUSION

After a thorough study conducted in Punjab, we can say that there is a strong association between customer overall satisfaction and online banking services offered by the banks. Making any changes in the independent factors like core online services, online information, and online support services will positively impact the overall satisfaction level. Customers feel comfortable in doing the banking transactions in online mode. Demographic factors like age, occupation and qualification are significantly impacting the perception level of customers towards online services. Customers living in this particular region are satisfied with the services offered by the banks. Banking personnel always motivate the customer to start adopting the contemporary banking services. Various online/offline sessions are conducted to inform the customers about the benefits of using online services.
REFERENCES

[1] Angell, J. R. (1910). Psychology: An introductory study of the structure and function of human consciousness: H. Holt.

[2] Caruana, A., & Ewing, M. T. (2010). How corporate reputation, quality, and value influence online loyalty. Journal of Business Research, 63(9-10), 1103-1110.

[3] Dai, X. (2018). The digital revolution and governance: Routledge.

[4] Hamzah, Z. L., Lee, S. P., & Moghavvemi, S. (2017). Elucidating perceived overall service quality in retail banking. International Journal of Bank Marketing, 35(5), 781-804.

[5] Ingold, T. (2002). The perception of the environment: essays on livelihood, dwelling and skill: Routledge.

[6] Mather, G. (2006). Foundations of perception: Taylor & Francis.

[7] Mittal, V., & Frennea, C. (2010). Customer satisfaction: a strategic review and guidelines for managers.

[8] Nui Polatoglu, V., & Ekin, S. (2001). An empirical investigation of the Turkish consumers’ acceptance of Internet banking services. International Journal of Bank Marketing, 19(4), 156-165.

[9] Rod, M., Ashill, N. J., Shao, J., & Carruthers, J. (2009). An examination of the relationship between service quality dimensions, overall internet banking service quality and customer satisfaction: A New Zealand study. Marketing Intelligence & Planning, 27(1), 103-126.

[10] Shanker, R. (2002). Services marketing: Excel Books India.

[11] Singhal, D., & Padmanabhan, V. (2008). A study on customer perception towards internet banking: Identifying major contributing factors. Journal of Nepalese business studies, 5(1), 101-111.

[12] Ankit Kesharwani, Shailendra Singh Bisht, (2012) "The impact of trust and perceived risk on internet banking adoption in India: An extension of technology acceptance model", International Journal of Bank Marketing, Vol. 30 Issue: 4, pp.303-322

[13] Wang, Y.-S., Wang, Y.-M., Lin, H.-H., & Tang, T.-I. (2003). Determinants of user acceptance of Internet banking: an empirical study. International journal of service industry management, 14(5), 501-519.

[14] https://www.hdfcbank.com/personal/learning-center/save/earth-day-everyday-changes-you-can-make-to-help-save-our-planet

[15] https://www.ibef.org/archives/detail/cHJlc2VudGF0aW9ucyYzNzI5MiY1NTA

[16] https://telecom.economictimes.indiatimes.com/news/337-mn-and-counting-over-quarter-of-indias-population-to-use-smartphones-in-2018/64016983

http://www.iaeme.com/IJM/index.asp  3193  editor@iaeme.com