REVIEW OF RESEARCH

A STUDY ON CUSTOMER SATISFACTION OF MOBILE BANKING SERVICES

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ABSTRACT:

The main aim of conducting this research study is to know about customer satisfaction on mobile banking services in Tirunelveli district and influence of demographic characters on customer satisfaction. In order to conduct this study and to achieve the objectives, the primary data has been collected by using structured questionnaires. For collecting the primary data judgmental sampling method is used. To undertake this study, the sample sizes of 400 respondents were taken. It was found that the customers are significantly satisfied with mobile banking services of the banking in Tirunelveli district. The study also proved that customer satisfaction on mobile banking services in Tirunelveli district is influenced by the demographic characters of the customers with notable effect. The study suggested that in order to satisfy the mobile banking customers, Reserve Bank of India, policymakers and bank management should formulate proper strategies and organize a program to generate the awareness among the customers according to their demographic characters.

KEYWORDS:
Customer Satisfaction, Mobile Banking Services, Tirunelveli District.

INTRODICTION:

Mobile banking service could be a typeof E-banking service that becomes very talked- about among bank customers within recent years. Mobile banking means that providing banking service by mobile technology devices. Mobile banking customers get totally different banking and money facilities like funds transfer, savings product, insurance product, paying fees of various forms, receiving payments through their mobile service technology. Nowadays mobile banking service is incredibly well-liked among all categories of individuals in India (Mahamudul Hasan, 2017).

The Reserve Bank of India has created Mobile banking services out there to all or any bank customers no matter the mobile network. All the banking activities of those customers like conducting financial transactions with their establishment and permitting consumers to transfer cash and build credit card payments anyplace, getting money account data, etc. is formed potential through the mobile banking (Singh, 2017). The customers in mobile banking services square measure increasing day by day thanks to the safety measures taken by the banks. additional and additional numbers of shoppers square measure being drawn to mobile banking as they need to be satisfied thanks to the measures taken by banks to secure the mobile banking transactions. Through mobile banking customers will currently add as several beneficiaries within the list as they need for fund transfer etc. and it saves vast of the amount of your time for those reasonably transactions (Sharma and Gautam, 2017). Therefore the purchasers to complete the money transactions by sitting reception however the purchasers were having issues of carrying however mobile phones square measure free from these difficulties. Mobile phones are

carried all over and employed by a giant number of individuals. Within the age of economic process and medical care, mobile banking has shown how to succeed in the top of the pyramid within the banking business through its style of services (Lalitha balakrishan, 2016).

Consumer satisfaction is considered the primary intervening constructs in the area of service marketing because ultimately it leads to the development of consumer loyalty or re-patronization of a product or service (Ravichandran, 2010). Customer satisfaction has a positive effect on an organization's profitability. Satisfied customers of any business repeat purchase, show brand loyalty delivered by firms in numerous businesses.

The customers in mobile banking services are increasing day by day due to the security measures taken by the banks. More and more numbers of customers are being drawn to mobile banking as they have been satisfied due to the measures taken by banks to secure mobile banking transactions. Through mobile banking customers can now add as many beneficiaries in the list as they want for fund transfer etc. and it saves huge of the amount of time for those kinds of transactions (Suresh, 2017).

STATEMENT OF THE PROBLEM

Mobile banking which is an integral part of m-Commerce is defined as availing banking and financial services with the help of mobile telecommunication device. The mobile phone has dramatically changed the lives of people and still, there seems to be much work left for it. In this competitive era, customer satisfaction is one of the critical success factors that influence the competitiveness of the banking sector. Whereas customer satisfaction is a concept for the evaluation of how these services are fulfilling the needs and desires of customers. To retain customers, banks should try to make customers satisfied with the effectiveness of banking services. Thus it is crucial for a deep understanding of the dimensions of customer satisfaction towards mobile banking services. The information technology (IT) experts and banking experts argued that the use of information and communications technology (ICT) in banking will increase the overall quality of banking services. Moreover, implementation of ICT in banking industry improves the quality of services and improved service quality in the banking business and hence it is expected to influence customer satisfaction.

Nevertheless, the mobile banking service market is still in its infancy, leaving a great deal of room for development. Although, no one has conducted fieldwork which examines the customer satisfaction of mobile banking services in Tirunelveli district. It is necessary to analyze the customer satisfaction with mobile banking services. Therefore, this research attempts to examine the customer satisfaction of mobile banking services in Tirunelveli district.

OBJECTIVES OF THE STUDY

The following objectives have been framed for the purpose of the present study:

1. To analyze the customer satisfaction of mobile banking services in Tirunelveli district.
2. To analyze the influence of demographic characters on customer satisfaction of mobile banking services.

RESEARCH METHODOLOGY

The descriptive type of research was adopted in the present study. To achieve the purpose of the study, the total of 400 mobile banking customers representing 16 Talukas of Tirunelveli district from each of 25 sample units were selected. The data were collected for the study by judgmental sampling method. In the light of the specific objective set, all information and data were collected from the sample respondents through direct personal interviews employing structured interview schedule. The primary data were collected for six months from January 2018 to June 2018. One sample t-test and Pearson chi-square test with Cramer's *V* was applied for analyzing the customer satisfaction on mobile banking services and influence of demographic character on customer satisfaction respectively. The primary data collected were analyzed by using Statistical Package for Social Sciences (SPSS 21).

ANALYSIS AND RESEARCH FINDINGS

The aim of this study in the section is to investigate the status of customer satisfaction of mobile banking services in Tirunelveli district. The researcher has used four variables related to mobile banking services such as Account Information and Investments Based Services, Transactions Based Services, Enquiry Based Services, and Support Based Services to measure customer satisfaction. The following null hypothesis ($1H_0$) is framed to know whether the customers have satisfaction or not on mobile banking services in Tirunelveli district.

$1H_0$: There will be no significant satisfaction of customers with mobile banking services in Tirunelveli district.

The analysis of one sample *t*-test was used to test the null hypothesis ($1H_0$) of this study. In this one sample *t*-test, the computed mean value of the factors of mobile banking services is compared with hypothesized mean value 3 to obtain the significance or insignificance value. Further, to calculate an effect size, called *d* or Cohen's *d* is used. Cohen's *d* above 0.7 is very strong, a value between 0.5 and 0.69 is strong, a value between 0.2 and 0.49 is moderate, and a value below 0.2 is low (Baguley, 2009). The result of the one-sample *t*-test is explained in table 1.

Table 1
One sample *t*-test: Customer Satisfaction on Mobile Banking Services

Factors of Mobile Banking Services	Test Value = 3						Std. Deviation	Effect Size Cohen's *d*
	N	*t* Value	df	*p* Value	Mean	Mean Difference		
Account Information and Investments Based Services	400	7.18	399	.000**	3.33	0.33	0.91	0.36
Transaction-Based Services	400	12.85	399	.000**	3.61	0.61	0.94	0.65
Enquiry Based Services	400	11.54	399	.000**	3.57	0.57	0.98	0.58
Support Based Services	400	12.41	399	.000**	3.61	0.61	0.99	0.62
Overall Mobile Banking Services	400	14.57	399	.000**	3.65	0.65	0.89	0.73

Source: Primary Data
**Significant at .05 level of confidence

Table 1 reveals that the mean value of 'Account Information and Investments Based Services' (3.33 ± 0.91) is higher than the hypothesized mean value of 3 (Test value). It is found that the *t* value of the factor 'Account Information and Investments Based Services' is statistically significant at the 5 percent level (t (399) = 7.18, $p < .05$, $d = 0.36$). Since the *p*-value is less than .05, the null hypothesis ($1H_0$) is rejected regarding the factor of 'Account Information and Investments Based Services'. There is enough evidence to conclude that there is a statistically significant satisfaction among the customers in the dimension of account information and investments based services towards mobile banking at the 0.05 significance level. Based on Cohen's *d* (0.36), it is found that the customers are satisfied moderately with mobile banking services of the banks in the study area in the dimension of account information and investments based services.

Table 1 Shows that the mean value of 'Transaction Based Services' (3.61 ± 0.94) is higher than the hypothesized mean value of 3 (Test value). It is found that the *t* value of the factor 'Transaction

Based Services' is statistically significant at the 5 percent level (t (399) = 12.85, p < .05, d = 0.65). Since the p-value is less than .05, the null hypothesis ($1H_0$) is rejected regarding the factor of 'Transaction Based Services'. There is enough evidence to conclude that there is a statistically significant satisfaction among the customers in the dimension of transaction-based services towards mobile banking at the 0.05 significance level. Based on Cohen's d (0.65), it is found that the customers are satisfied strongly with mobile banking services of the banks in the study area in the dimension of transaction-based mobile banking services.

Table 1 illustrates that the mean value of 'Enquiry Based Services' (3.57 ± 0.98) is higher than the hypothesized mean value of 3 (Test value). It is found that the t value of the factor 'Enquiry Based Services' is statistically significant at the 5 percent level (t (399) = 11.54, p < .05, d = 0.58). Since the p-value is less than .05, the null hypothesis ($1H_0$) is rejected regarding the factor of 'Enquiry Based Services'. There is enough evidence to conclude that there is a statistically significant satisfaction among the customers in the dimension of enquiry based services towards mobile banking at the 0.05 significance level. Based on Cohen's d (0.58), it is found that the customers are satisfied strongly with mobile banking services of the banks in the study area in the dimension of enquiry based services.

Table 1 confirms that the mean value of 'Support Based Services' (3.61 ± 0.99) is higher than the hypothesized mean value of 3 (Test value). It is found that the t value of the factor 'Support Based Services' is statistically significant at the 5 percent level (t (399) = 12.41, p < .05, d = 0.62). Since the p-value is less than .05, the null hypothesis ($1H_0$) is rejected regarding the factor of 'Support Based Services'. There is enough evidence to conclude that there is a statistically significant satisfaction among the customers in the dimension of support based services towards mobile banking at the 0.05 significance level. Based on Cohen's d (0.62), it is found that the customers are satisfied strongly with mobile banking services of the banks in the study area in the dimension of support based services.

Table 1 reports that the mean value of 'Overall Mobile Banking Services' (3.65 ± 0.89) is higher than the hypothesized mean value of 3 (Test value). It is found that the t value of 'Overall Mobile Banking Services' is statistically significant at the 5 percent level (t (399) = 14.57, p < .05, d = 0.73). Since the p-value is less than .05, the null hypothesis ($1H_0$) is rejected regarding 'Overall Mobile Banking Services'. There is enough evidence to conclude that there is a statistically significant satisfaction among the customers in overall mobile banking services at the 0.05 significance level. Based on Cohen's d (0.73), it is found that the customers are satisfied very strongly with overall mobile banking services of the banks in the study area.

From a theoretical point of view, it is concluded that the customers are significantly satisfied on account information and investments based mobile banking services with moderate effect, transaction-based mobile banking services with strong effect, enquiry based mobile banking services with strong effect, support based mobile banking services with strong effect and overall mobile banking services with very strong effect.

The proposed null hypothesis ($1H_0$) was tested by one-sample t-test. The significant level of confidence was fixed at .05. Using this significance level, it is possible to reach a decision with regard to whether to reject or retain the proposed null hypothesis. The decision made, based on this p-value, is presented in table 2.

Table 2
Null Hypothesis ($1H_0$) Test Summary

Null Hypothesis	Test	Factors	*p*-value	Decision
There will be no significant satisfaction of customers with mobile banking services in Tirunelveli district.	One-Sample *t*-test	Account Information and Investments Based Services	.000**	Rejected
		Transaction Based Services	.000**	Rejected
		Enquiry Based Services	.000**	Rejected
		Support Based Services	.000**	Rejected
		Overall Mobile Banking Services	.000**	Rejected

**Significant at 0.05 level

Table 2 reveals that the null hypothesis ($1H_0$) is rejected at the 5 percent level of significance with regard to the mobile banking services in the dimensions of Account Information and Investments Based Services, Transaction Based Services, Enquiry Based Services, Support Based Services and Overall Mobile Banking Services due to the *p*-value is less than 0.05.

The study makes further an attempt to analyze the influence of demographic characters of the respondents on their satisfaction on mobile banking services. The independent variables of this study represent the demographic characters, which includes, gender, age, literacy level, occupation and monthly income of the respondents. These variables were selected by the researcher based on the extant literature discussed in the section on Literature Review of the study. The dependent variable of the study is customer satisfaction on mobile banking services. In order to investigate the influence of demographic characters of the respondents on their satisfaction on mobile banking services, Pearson chi-square was performed. In the Pearson chi-square test, Cramer's *V* is utilized to determine the effect of the influence of independent variables (Demographic Characters) on the dependent variable (Customer Satisfaction of Mobile Banking Services) if it is significant. The following null hypothesis ($2H_0$) is framed to test the influence of demographic characters of the respondents on their satisfaction on mobile banking services.

$2H_0$: There will be no statistically significant influence of demographic characters of the respondents on their satisfaction on mobile banking services.

The result of the Chi-Square test regarding the influence of demographic characters of the respondents on their satisfaction on mobile banking services is presented in table 3.

Table 3
Association between Demographic Characters and Customer Satisfaction

Testing Variables		Pearson Chi-Square			
Dependent Variable	Independent Variables	Value (χ^2)	df	*p*-value	Cramer's *V*
Customer Satisfaction on Mobile Banking Services	Gender	11.14	4	.025**	.17
	Age	29.08	16	.023**	.27
	Literacy Level	20.95	12	.041**	.23
	Occupation	23.75	20	.031**	.25
	Monthly Income	36.71	20	.013**	.30

Source: Primary Data
**Significant at .05 level of confidence

The table 3 shows that the observed chi-square (χ^2) value for gender and customer satisfaction on mobile banking services is 11.14, which is associated with a 2.5 percent risk of being wrong in rejecting the null hypothesis. This is tiny a risky (far below the standard of 5 percent risk), so the study is unable to accept the null hypothesis ($2H_0$) in the case of gender and customer satisfaction on mobile banking services. The study, therefore, concludes that there was a statistically significant association between gender and customer satisfaction on mobile banking services, χ^2 (4) = 11.14, p = .025 < .05. Thus, it can be interpreted that the gender of the respondents influences their satisfaction on mobile banking services. Based on Cramer's V = 0.17, the magnitude of association of the gender of the respondents with their satisfaction on mobile banking services is weak. Hence it is confirmed that the gender difference of customers can become a significant demographic character in determining their satisfaction on mobile banking services with weakening effect.

The table 3 reveals that the observed chi-square (χ^2) value for age and customer satisfaction on mobile banking services is 29.08, which is associated with a 2.3 percent risk of being wrong in rejecting the null hypothesis. This is tiny a risky (far below the standard of 5 percent risk), so the study is unable to accept the null hypothesis ($2H_0$) in the case of age and customer satisfaction on mobile banking services. The study, therefore, concludes that there was a statistically significant association between the age and customer satisfaction on mobile banking services, χ^2 (16) = 29.08, p = .023 < .05. Thus, it can be interpreted that the age of the respondents influences their satisfaction on mobile banking services. Based on Cramer's V = 0.27, the magnitude of association of the age of the respondents with their satisfaction on mobile banking services is moderately strong. Hence it is confirmed that the age difference of customers can become a significant demographic character in determining their satisfaction on mobile banking services with a moderately strong effect.

The table 3 divulges that the observed chi-square (χ^2) value for literacy level and customer satisfaction on mobile banking services is 20.95, which is associated with a 4.1 percent risk of being wrong in rejecting the null hypothesis. This is a risky (far below the standard of 5 percent risk), so the study is unable to accept the null hypothesis ($2H_0$) in the case of literacy level and customer satisfaction on mobile banking services. The study, therefore, concludes that there was a statistically significant association between the literacy level and customer satisfaction on mobile banking services, χ^2 (12) = 20.95, p = .041 < .05. Thus, it can be interpreted that the literacy level of the respondents influences their satisfaction on mobile banking services. Based on Cramer's V = 0.23, the magnitude of association of the literacy level of the respondents with their satisfaction on mobile banking services is moderately strong. Hence it is confirmed that the literacy level difference of customers can become a significant demographic character in determining their satisfaction on mobile banking services with a moderately strong effect.

The table 3 discloses that the observed chi-square (χ^2) value for occupation and customer satisfaction on mobile banking services is 23.75, which is associated with a 3.1 percent risk of being wrong in rejecting the null hypothesis. This is a risky (far below the standard of 5 percent risk), so the study is unable to accept the null hypothesis ($2H_0$) in the case of occupation and customer satisfaction on mobile banking services. The study, therefore, concludes that there was a statistically significant association between the occupation and customer satisfaction on mobile banking services, χ^2 (20) = 23.75, p = .031 < .05. Thus, it can be interpreted that the occupation of the respondents influences their satisfaction on mobile banking services. Based on Cramer's V = 0.25, the magnitude of association of the occupation of the respondents with their satisfaction on mobile banking services is moderately strong. Hence it is confirmed that the occupational difference of customers can become a significant demographic character in determining their satisfaction on mobile banking services with a moderately strong effect.

The table 3 unveils that the observed chi-square (χ^2) value for monthly income and customer satisfaction on mobile banking services is 36.71, which is associated with a 1.3 percent risk of being wrong in rejecting the null hypothesis. This is tiny a risky (far below the standard of 5 percent risk), so the study is unable to accept the null hypothesis ($2H_0$) in the case of monthly income and customer satisfaction on mobile banking services. The study, therefore, concludes that there was a statistically

significant association between the monthly income and customer satisfaction on mobile banking services, χ^2 (20) = 36.71, p = .013 < .05. Thus, it can be interpreted that the monthly income of the respondents influences their satisfaction on mobile banking services. Based on Cramer's V = 0.30, the magnitude of association of the monthly income of the respondents with their satisfaction on mobile banking services is moderately strong. Hence it is confirmed that the monthly income difference of customers can become a significant demographic character in determining their satisfaction on mobile banking services with a moderately strong effect.

From a theoretical point of view, customer satisfaction on mobile banking services in Tirunelveli district is influenced by the demographic characters of the customers with notable effect.

The proposed null hypothesis ($2H_0$) was tested by Chi-Square test. The significant level of confidence was fixed at .05. Using this significance level, it is possible to reach a decision with regard to whether to reject or retain the proposed null hypothesis. The decision made, based on this p-value, is presented in table 4.

Table 4
Null Hypothesis ($2H_0$) Test Summary

Null Hypothesis	Test	Demographic Characters	p-value	Decision
There will be no statistically significant influence of demographic characters of the respondents on their satisfaction with mobile banking services.	Chi-Square test	Gender	.025**	Rejected
		Age	.023**	Rejected
		Literacy Level	.041**	Rejected
		Occupation	.031**	Rejected
		Monthly Income	.013**	Rejected

**Significant at 0.05 level

Table 4 reveals that the null hypothesis ($2H_0$) is rejected at the 5 percent level of significance in case of demographic characters of the respondents such as gender, age, literacy level, occupation and monthly income due to the p-value is less than 0.05.

CONCLUSION

The findings revealed that that the customers are significantly satisfied on account information and investments based mobile banking services with moderate effect, transaction-based mobile banking services with strong effect, enquiry based mobile banking services with strong effect, support based mobile banking services with strong effect and overall mobile banking services with very strong effect. The study also proved that customer satisfaction on mobile banking services in Tirunelveli district is influenced by the demographic characters of the customers with notable effect. The study suggested that in order to satisfy the mobile banking customers, Reserve Bank of India, policymakers and bank management should formulate proper strategies and organize a program to generate the awareness among the customers according to their demographic characters.

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