

IMPACT OF DEMOGRAPHIC VARIABLES ON THE CUSTOMERS' CHOICE OF DIFFERENT MODES OF BANKING TRANSACTIONS IN ODISHA

-Dr Sabyasachi Dey, Assistant Professor, Centurion University of Technology and Management, Odisha

-Dr Sathya Swaroop Debasish, Associate Professor, PG Department of Business Administration, Utkal University, Odisha

ABSTRACT

The customers have several options to carry out their banking transactions. They can either go to branch to carry out their transactions, use their ATM debit card, use their credit card or internet banking, mobile banking etc. This study aimed to study the impact of demographic variables of the customers on their choice of different modes of banking transactions and also their preferred mode of transaction. For this purpose a questionnaire was developed and distributed to 400 customers from private banks in Cuttack, Bhubaneswar and Rourkela out of which 291 were completed and returned yielding a response rate of 72.8%. In this research the impact of four demographic variables was studied, they are gender, age, occupation and income. The modes of banking transactions which were selected in this study are branch, ATM card, credit card, internet banking and mobile banking. The responses obtained were analysed using t-test and one way ANOVA. In this study it is observed that in case of demographic variable

'gender' it was only in case of usage of credit card for bank transaction where there is no significant difference regarding the opinions of male and female respondents. In the case of the demographic variable 'occupation' it was only in case of ATM card transactions, there is no significant difference regarding the opinions of the respondents from various occupational backgrounds. ATM was found to be the most preferred mode of banking transaction by the respondents so the intervention of bank employees are required so that the transaction through other modes like internet banking, credit card and mobile banking could be increased.

Keywords: Demographic variables, Banking transactions, t-test, One way ANOVA, ATM

INTRODUCTIONS

The banking and financial services sector is in a position today to benefit most by leveraging technology and is a sector that has absorbed the technology to a great extent. Now-a-days

a condition has reached in which this sector cannot survive without the support and application of information and communication technology. Though these technological changes have opened up in India by new private sector and foreign banks, now such a situation has been reached where even the traditional banks in the public sector and old private banks are also adopting the technology enabled banking self services. All banks in India have realized in the post-liberalization era that in order to remain competitive and to provide the better services to their customers, they need to be ready with the latest technology. Irrespective of the ownership status of the commercial banks (nationalized or private sector), almost all of them have given maximum importance to technological development and deployment. ATMs, plastic money, online collection and payment services, electronic fund transfer and clearing services, mobile ATMs, document management systems, smart cards, core banking solutions, branch networking, internet banking and mobile banking are all outcomes of their initiative of technological up gradation (Upadhyay et al., 2008).

In banking, in the past, the technology strategy was considered as a subordinate to business strategy. But now with so much advancement in technology, banking has become as important as business strategy. Technology has provided an altogether new way of interacting and providing service to bank customers rather than merely replicating activities of the bank employees (Godse, 2005). Now several modes of banking transactions are available to the customers like doing the transaction in the branch itself, using of Automated Teller Machines, Internet Banking, Credit/Debit cards, Mobile banking

etc. People use these modes of transactions as per their requirements, convenience at a given point of time. But there is a need to understand and analyze the influence of the demographic factors on the selection of a particular mode of banking transaction at a given point of time. This study attempts to investigate whether the demographic variables do have an impact on the different modes of banking transactions or not.

LITERATURE REVIEW

As defined by Zeithmal and Bitner (2000) “services are deeds, processes and performances”. The characteristics that distinguish them from physical goods as identified by Parasuram et al. (1985) are their “intangibility, heterogeneity, inseparability and perishability”. All these features of services pose different challenges to a manager in a service firm, which is true in the case of banking industry also as banks are essentially delivering services with the above features.

Traditionally, banking services were carried out by the frontline employees of a bank branch and hence this, as classified by Lovelock (1996), is a relatively ‘high contact’ service in which employees are an integral part of the service along with the facilities and equipments in a branch of the bank. In traditional banking, as the people who are delivering the services, there is every chance that their performance may vary from day to day or even hour to hour leading to heterogeneity in the services provided. Due to this heterogeneity characteristic of services, ensuring quality in services becomes difficult to assess as a number of uncontrollable factors are involved such as

attitudes and perceptions of customers as well as the employees are involved (Zeithmal and Bitner, 2000; Lovelock, 1996).

Another important facet as far as services are concerned is that depending on the kind of services, customer partnership is required to varying extent in the creation and delivery of services (Lovelock and Young, 1979; Bettencourt, 1997). Since customers do have some role to play in service production, they can be rightly considered as 'partial employees' of a service firm and they are contributors to their own satisfaction and service quality perception (Zeithmal and Bitner, 2000; Mills and Morris, 1986).

Aref and Mohammed (2001) examined the adoption of tele-banking mode of banking channel in Saudi Arabia. The results also indicate that in general, Saudi consumers' income levels play a vital role in their adoption and usage of tele-banking technology. Filotto et.al (1997) in his study conducted among Italian bank customers and distinguished between the features of ATM users and non users. They found the interest among the younger is more than the older ones. Here the demographic variable 'age' played a vital role in making the choice for banking channel.

Laforet and Li (2005) examined the demographic characteristics of online and mobile banking users in China. Their findings showed that age and education levels did not influence online/mobile banking adoption rather gender had an influence on the usage of online and mobile banking as more males were using online and mobile banking.

Wan et al (2005) in their study among Hong Kong bank customers, they found that ATM

was the most preferred choice of banking channel, followed by online banking and branch banking while telephone banking was least preferred.

From the literature review done, it is quite clear that customer choice and preferences regarding the selection of banking channel is varied across different countries but this study aims to study the impact of demographic variables on the different modes of banking transactions in Odisha on which very few studies may have been done previously which is considered as 'research gap' in this study

OBJECTIVES

The study aims to fulfill the following objectives:-

- 1.To study the influence of demographic variables on the choice of mode of banking transactions.
- 2.To find out which mode of banking transaction is most preferred by the respondents.

RESEARCH METHODOLOGY

Data Collection

After the review of literature, the questionnaire was prepared to capture the responses from customers having their accounts in private banks. Their opinions were taken on the basis of percentage of banking transactions they do through branch, ATMs, internet banking, credit cards and mobile banking (demographic wise). The analysis has been done using t-test and one way ANOVA. In this study there were four demographic variables which were used. They are gender, age, occupation and income. The impact of these variables on the choice of the mode of banking transaction was studied.

Sampling Procedure

For this study purposive sampling has been used. Four hundred questionnaires were distributed across Bhubaneswar, Cuttack and Rourkela only to the customers of private banks out of which 291 were completed and returned recording a response rate of 72.8%.

DATA ANALYSIS AND FINDINGS

The demographic features of the 291 respondents who answered the measurement device are given in Table no 5.1 below:-

Table 5.1. Demographic profile of Respondents

Demographic Variables	Groups	Frequency	Percentage
Gender	Male	185	63.57
	Female	106	36.43
Age in yrs	18-28	71	24.40
	29-39	137	47.08
	40-50	40	13.75
	51-61	20	6.87
	62-72	23	7.90
Occupation	Self employed	83	28.52
	Business	82	28.18
	Professional	87	29.90
	Housewife	16	5.50
	Retired	23	7.90
Income in INR	1,00,000-2,00,000	47	16.15
	2,00,001-5,00,000	130	44.67
	5,00,001-10,00,000	78	26.81
	10,00,001-15,00,000	36	12.37

The primary data collected from questionnaire was analyzed using t-test and one way ANOVA. The results and their interpretations have been discussed below:-

Table 5.2: t-test on modes of percentage of banking transactions conducted by male and female respondents.

	Gender	N	Mean	Std. Deviation	t-value	Significant value
Branch	Male	185	14.11	9.01	4.113*	0.03
	Female	106	10.00	6.55		
ATMs	Male	185	41.03	20.50	5.695*	0.007
	Female	106	55.90	22.98		
Internet Banking	Male	185	12.92	13.78	3.484*	0.014
	Female	106	8.16	3.67		
Credit Cards	Male	185	14.19	17.86	1.310 NS	0.57
	Female	106	11.51	14.76		
Mobile Banking	Male	185	17.76	6.36	3.723*	0.023
	Female	106	14.43	8.77		

N.B:- * - Significant at 5% level ($P < 0.05$), NS – Not Significant at 5% level ($P > 0.05$), DF = 289

In table 5.2 shows the result of t-test with regard to banking transactions through various modes as evidenced by male and female respondents. It is observed that with respect to bank transactions through Branch, there is significant difference between male and female respondents as shown by t-value of 4.113 significant at 5% level. Similarly ATM transactions, Internet Banking transactions and mobile banking transactions are also found to have significant difference with regard to male and female respondents with t-value of 5.695, 3.484 and 3.723 respectively whereas with respect to Credit card transactions there is no significant difference between the male and female respondents with t-value of 1.310.

Table 5.3: ANOVA on banking transactions conducted by users of different age groups.

		Sum of Squares	df	Mean Square	F	Significant value
Branch	Between Age Groups	1597.107	4	399.277	6.020*	0.016
	Within Age Groups	18968.013	286	66.322		
	Total	20565.120	290			

ATMs	Between Age Groups	32591.800	4	8147.950	20.254*	0.008
	Within Age Groups	115052.015	286	402.280		
	Total	147643.814	290			
Internet Banking	Between Age Groups	2044.163	4	511.041	4.080*	0.023
	Within Age Groups	35821.816	286	125.251		
	Total	37865.979	290			
Credit Cards	Between Age Groups	22480.874	4	5620.218	26.997*	0.011
	Within Age Groups	59539.917	286	208.182		
	Total	82020.790	290			
Mobile Banking	Between Age Groups	949.946	4	237.486	4.438*	0.036
	Within Age Groups	15304.178	286	53.511		
	Total	16254.124	290			

N.B.-* - Significant at 5% level ($P < 0.05$)

The results obtained on application of one-way ANOVA in the table 5.3 on approximate percentage of the banking transactions conducted, have been presented in table 5.3 by treating age-group as independent factor. The F-value shown against Branch (6.020) is significant at 5% level ($P < 0.05$). Hence, the percentage of banking transaction conducted through branch in respect of customers belonging to different age groups is significant. In a similar manner the F-value shown against ATM (20.254), Internet Banking (4.080), Credit Cards (26.997) and Mobile Banking (4.438) are all found to be significant at 5% level ($P < 0.05$). Hence, the percentage of banking transaction conducted through ATMs, Internet Banking, Credit Cards and Mobile Banking in respect of customers belonging to different age groups is also significant.

Table 5.4: ANOVA on modes of banking transactions conducted by users of different occupation groups.

		Sum of Squares	df	Mean Square	F	Significant value
Branch	Between Occupation Groups	2271.082	4	567.771	8.876*	0.021
	Within Occupation Groups	18294.038	286	63.965		
	Total	20565.120	290			
ATMs	Between Occupation Groups	3915.086	4	978.771	1.948 NS	0.19
	Within Occupation Groups	143728.729	286	502.548		
	Total	147643.814	290			
Internet Banking	Between Occupation Groups	2450.777	4	612.694	4.948*	0.008
	Within Occupation Groups	35415.203	286	123.829		
	Total	37865.979	290			
Credit Cards	Between Occupation Groups	3300.186	4	825.047	2.997*	0.012
	Between Occupation Groups	78720.604	286	275.247		
	Within Occupation Groups	82020.790	290			
Mobile Banking	Total	944.061	4	236.015	4.409*	0.007
	Within Groups	15310.062	286	53.532		
	Total	16254.124	290			

N.B:- * - Significant at 5% level ($P < 0.05$), NS – Not Significant at 5% level ($P > 0.05$)

The results obtained on application of one-way ANOVA on approximate percentage of the banking transactions conducted, have been presented in the table 5.4 by treating occupation-group as independent factor. The F-value shown against Branch (8.876) is significant at 5% level ($P < 0.05$). Hence, the percentage of banking transaction conducted through branch in respect of customers belonging to different occupation groups is significant. In a similar manner the F-value shown against Internet Banking (4.948), Credit Cards (2.997) and Mobile Banking (4.409) are all found to be significant at 5% level ($P < 0.05$). Hence, the percentage of banking transaction conducted through Internet Banking, Credit Cards and Mobile Banking in respect of customers belonging to different occupation groups is also significant. But transactions made through ATMs with respect to customers belonging to different occupation groups is not significant as evidenced by F-value of 1.948.

Table 5.5: ANOVA on modes of banking transactions conducted by users of different income groups.

		Sum of Squares	df	Mean Square	F	Significant value
Branch	Between Income Groups	1904.811	3	634.937	9.765*	0.006
	Within Income Groups	18660.310	287	65.019		
	Total	20565.120	290			
ATMs	Between Income Groups	27884.871	3	9294.957	22.275*	0.011
	Within Income Groups	119758.943	287	417.279		
	Total	147643.814	290			
Internet Banking	Between Income Groups	4743.224	3	1581.075	13.700*	0.026
	Within Income Groups	33122.756	287	115.410		
	Total	37865.979	290			

Credit Cards	Between Income Groups	10962.324	3	3654.108	14.759*	0.003
	Within Income Groups	71058.466	287	247.590		
	Total	82020.790	290			
Mobile Banking	Between Income Groups	3825.199	3	1275.066	29.443*	0.016
	Within Income Groups	12428.924	287	43.306		
	Total	16254.124	290			

N.B:- * - Significant at 5% level ($P < 0.05$), NS – Not Significant at 5% level ($P > 0.05$)

The results obtained on application of one-way ANOVA on approximate percentage of the banking transactions conducted, have been presented in the table 5.5 by treating income-group as independent factor. The F-value shown against Branch (9.765) is significant at 5% level ($P < 0.05$). Hence, the percentage of banking transaction conducted through branch in respect of customers belonging to different income groups is significant. In a similar manner the F-value shown against ATM (22.275), Internet Banking (13.700), Credit Cards (14.759) and Mobile Banking (29.443) are all found to be significant at 5% level ($P < 0.05$). Hence, the percentage of banking transaction conducted through ATMs, Internet Banking, Credit Cards and Mobile Banking in respect of customers belonging to different income groups is also significant.

CONCLUSIONS AND SCOPE FOR FURTHER RESEARCH

In this study it is observed that in case of demographic variable 'gender' it was only in case of usage of credit card for bank transaction where there is no significant difference regarding the opinions of male and female respondents. It is perhaps because the other options available to the buyers like Phone Pe, Pay Tm, BHIM, Google pay etc where the transactions are completed easily just by scanning the QR codes so the usage of credit cards have reduced. Again in the case of the demographic variable 'occupation' it was only in case of ATM card transactions, there is no significant difference regarding the opinions

of the respondents from various occupational backgrounds. This is because almost everybody still prefers to use their ATM card for Point of Sale (POS) transactions as well as going to ATM for withdrawing as well as deposit of cash where as in rest of the results the respondents' opinions were significantly different. This study has its own limitations. This study was conducted in few cities in Odisha exclusively by interviewing the customers of private banks. In future this study could be done on a PAN India basis as well as including the customers of nationalized banks and a comparative study can also be done to observe whether there is any difference in results by analyzing the responses of customers of nationalized banks.

References

1. Zeithaml, V.A. & Bitner, M.J. (2000). *Services Marketing: Integrating Customer Focus across the Firm* (2nd Edition). Boston, USA: McGraw-Hill.
2. Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A Conceptual Model of Service Quality and its Implications for Future Research. *Journal of marketing*, 49 (4), 41-50.
3. Lovelock, C.H. (1996). *Services Marketing* (3rd Edition). University of Michigan, USA: Prentice Hall.
4. Lovelock, C.H., & Young, R.F. (1979). Look to consumers to increase productivity. *Harvard Business Review*, 57 (3), 168-178.
5. Bettencourt, L. A. (1997). Customer Voluntary Performance: Customers as Partners in Service Delivery. *Journal of Retailing*, 73, 383-406.
6. Mills, P.K., & Morris, J.H. (1986). Clients as “Partial” Employees of Service Organizations: Role Development in Client Participation. *The Academy of Management Review*, 11 (4), 726-735.
7. Aref, A.A., & Mohammad, A.B. (2001). Customer adoption of tele-banking technology: The case of Saudi Arabia. *International Journal of Bank Marketing*, 19 (5), 191-201.
8. Filotto, U., Tanzi, P.M., & Saita, F. (1997). Customer needs and front-office technology adoption. *International Journal of Bank Marketing*, 15 (1), 13-21.
9. Laforet, S. & Li, X. (2005). Consumers’ attitudes towards online and mobile banking in China. *International Journal of Bank Marketing*, 23 (5), 362- 380.
10. Wan, W.W.N., Luk, C., & Chow, C.W.C. (2005). Customers’ adoption of banking channels in Hong Kong. *International Journal of Bank Marketing*, 23 (3), 255-272.
11. Geetika, Nandan T., & Upadhyay, A. (2008). Internet Banking in India: Issues and Prospects. *The ICFAI University Journal of Bank Management*, 7 (2), 47-61.
12. Godse, V. (2005). Technology: An Influences Analysis. *Bank Quest: The Journal of Indian Institute of Banking & Finance*, 76 (1), 14-17.