



**ORIGINAL RESEARCH PAPER**

**Management**

**CHALLENGES FACED BY CUSTOMERS IN ADOPTION OF NEW AGE PAYMENT AND SETTLEMENT SYSTEM: AN EMPIRICAL STUDY FROM THE BANKS OF GURUGRAM, HARYANA**

**KEY WORDS:** New Age Payment and Settlement System, Challenges, Bank

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**ABSTRACT**

New Age Payment and Settlement System was introduced in banking industry to improve the service quality of banking industry. But every new technology comes with lots of challenges and banking industry is not an exception to it, so keeping this in view this research has been conducted to study the challenges faced by customers in using New Age Payment and Settlement System. The data has been collected from 312 customers with the help of semi structured questionnaire and it has been concluded that data security & privacy, phishing and lack of knowledge are the major challenges faced by customers.

**INTRODUCTION:**

Payment and settlement systems form the backbone of any economy. They are the conduits or the arteries for conducting trade, commerce and other forms of economic activities including remittances in any country. An efficient payments system can be envisaged as the lubricant which speeds up the liquidity flow in the economy, thereby creating the necessary impetus and momentum for economic growth. The payments process is a vital aspect of financial intermediation; it enables the creation and transfer of liquidity among different economic agents. A smooth, well functioning and regulated payments system thus not only ensures efficient utilization of scarce resources but also eliminates systemic risks.

Automation of clearing operation was the foremost step towards transformation of payment system. The introduction of information technology for clearing operations began with the setting up of 'Claim based settlement system' at Mumbai, Chennai, Calcutta and Delhi in early eighties. The system was used for generating settlement reports on the basis of input statements holding the aggregate value of claims (cheques presented) of one bank over the other banks in the clearing house. As a result, clearing, balancing and settlement which used to take a extensive time due to differences and errors in manual balancing were reduced. The next significant landmark was fully computerizing the clearing operations. Fast growth of cheque volumes in the '80s made the tasks of manual sorting and listing very complicated. Banks were not capable to cope with huge volume of cheques which have to be physically handled prior to their presentation in the clearing house. Despite the fact that the clearing and settlement became simple because of computerization, the heavy volume of paper that had to be processed, introduced delays in presentation, resulted in delayed credit to customers. So, the growth in volumes could be managed only by mechanization of entire clearing procedure. This problem was resolved by the introduction of MICR based cheques processing technology. The cheques were to be redesigned including a MICR code line which could be read by document processing machines called reader sorters.

As part of its public policy objective of promoting a safe, secure, sound and efficient payment system, the Reserve Bank has taken several initiatives to develop and promote electronic payments infrastructure. Towards this end, the RBI introduced the Electronic Clearing Service (ECS) and the Electronic Funds Transfer (EFT) system in 1995, the Real Time Gross Settlement (RTGS) system in March 2004 and the National Electronic Funds Transfer (NEFT) system in November 2005, Immediate Payment Service (IMPS) in November 2010. But even after one decade the customers are facing challenges in using this system, so keeping this in mind

this paper address the challenges faced by customers in adoption of new age payment and settlement system.

**Literature Review:**

**John F. & R. Radhika (2018)** concluded that Indian banking industry is gradually moving towards adopting the best practices with a number of changes. Most of the banks have begun to take an innovative approach towards Electronic payment systems with the objective to reduce cashless banking. The Various Innovations in Banking through payment systems are Debit and Credit cards, Electronic clearing services (ECS), National Electronic fund transfer (NEFT), Immediate Payment Service (IMPS), Real time gross settlement (RTGS) and many more. The research focused on the changing Banking trends from paper based systems to Electronic payment systems. This study analysed the awareness, usage and the benefits of using electronic payment systems in banking with the help of primary and secondary data collection. However, the findings helped the Indian commercial banks to enhance the technological payment systems in order to improve the business performance and economic growth.

**Robert Nzaro and NorestMagidi (2016)** stated majority of the respondents showed little commitment and showed a negative attitude towards the adoption of Electronic Payment System. It is found that credit card frauds are rampant in Zimbabwe than in other countries making customer fear safety. It is also found that the sampled employees felt that intensive usage of electronic payment system would lead to reduced demand for labour. It is mentioned that cell phone banking was very popular followed by RTGS and credit cards. The findings discovered that the least expensive type of electronic payment was electronic banking. The respondents including the bank employees noted five major shortcomings of adopting electronic payment system namely, high set up costs, web theft, long query solving time and auditing challenges. It is recommended that banks need to be encouraged to continue investing in more modern electronic payment systems as new technologies result in improved income streams and profitability.

**Singh, M., &Kaushal, R. (2014)** indicated that the process of deregulation and reforms in the Indian banking system resulted in the creation of an efficient and competitive banking system. The payment systems like card based payment systems, ECS, EFT, RTGS, NEFT and CTS have offered a variety of services to the customers. During the last three years, all the electronic modes of payment have shown better growth than the physical check-based system. The Reserve Bank of India is, therefore, taking necessary steps to provide efficient and integrated payment and settlement system in the country and is also taking steps to mitigate the loss and risk.

This paper studied the impact of electronic banking on payment and clearing system and identifies the important factors for the customers to choose electronic banking as a mode of payment.

**Ponmuthumari S (2014)** had found that the payment & clearing system is beneficial in handling large volume of business payment/remittances. It has also provided an alternative for faster delivery of banking services acceptable to wide range of customers. The payment system reduces the risks by controlling the fraudulent activities and costs. Fees for e- banking services should be affordable by all customers and the sample respondents must be made comfortable over the e- banking services. The respondents feel they need to improve their knowledge on the Electronic Payments and Clearing System that they use. The respondents also feel that the e-payment techniques have led to the improvement of service quality in banks.

According to **Sawant, B. S. (2013)** Banking sector plays a significant role in development of Indian economy; so banks need to optionally leverage technology to increase penetration, improve their productivity and efficiency, deliver cost-effective products and services, provide faster, efficient and convenient customer service and thereby, contribute to the overall growth and development of the country. Technology enables increased penetration of the banking system, increases cost effectiveness and makes small value transactions viable. Besides making banking products and services affordable and accessible, it's simultaneously ensures viability and profitability of providers. Technology allows transactions to take place faster and offers unparalleled convenience through various delivery channels. Technology enhances choices, creates new markets, and improves productivity and efficiency. Effective use of technology has a multiplier effect on growth and development.

**Objective:**

The purpose of this research paper is to study the challenges faced by bank customers in adoption of new age payment and settlement system.

**Hypothesis:**

H<sub>0</sub>: There is no significant difference in the challenges faced by customers in adoption of new age payment and settlement system with respect to their demographic variables.

H<sub>a</sub>: There is a significant difference in the challenges faced by customers in adoption of new age payment and settlement system with respect to their demographic variables.

**Research Methodology**

**(a) Research Design:-**

To have a better understanding about the issue descriptive research design was used. To get the primary data close ended questionnaire was administrated.

**(b) Sample Design:-**

312 banking customers were selected through stratified purposive sampling from Gurugram, Haryana

**(c) Analysis:-**

The data collected was analyzed with the help of Arithmetic mean, t-test and ANOVA.

**Analysis & Interpretations**

**Demographic Profile of Customers:**

The table 1 is presenting the demographic profile of customers, it can be observed that 57.37% respondents (N=179) were male and 45.51% customers were aged between 40 to 60 years. Majority of respondents (N=241, Percentage=77.24) were residing in urban area and maximum number of customers (N=239, Percentage=76.60)

were married. 41.03% customers (N=128) were postgraduate and 34.29% respondents (N=107) were working in private companies. In the sample 44.55% respondents (N=139) were the customers of public bank and rest of the respondents (N=173, Percentage=55.45) were from private banks.

**Table 1: Demographic Profile of Customers**

Gender	N	Percentage	Marital Status	N	Percent age
Male	179	57.37	Unmarried	58	18.59
Female	133	42.63	Married	239	76.60
Total	312	100	Divorced	10	3.21
Age	N	Percentage	Widow	5	1.60
Below 20 Years	41	13.14	Total	312	100
20-40 Years	106	33.97	Qualification	N	Percent age
40-60 Years	142	45.51	Undergradua te	47	15.06
Above 60 Years	23	7.37	Graduate	109	34.94
Total	312	100	Postgraduate	128	41.03
Area	N	Percentage	Other	28	8.97
Urban	241	77.24	Total	312	100
Rural	71	22.76	Occupation	N	Percent age
Total	312	100	Govt. Employee	58	18.59
Type of Bank	N	Percentage	Pvt. Employee	107	34.29
Public	139	44.55	Businessman	99	31.73
Private	173	55.45	Homemaker	38	12.18
Total	312	100	Other	10	3.21
			Total	312	100

**Challenges faced by customers in using FinTech Banking**

The table 2 is presenting the challenges faced by customers in adoption of new age payment and settlement system. According to results the major challenge faced by customers in using New Age Payment and Settlement System was data security & privacy (Mean=3.19) followed by phishing (Mean=3.16), lack of knowledge (Mean=3.08) and no scope of personal advice (Mean=2.98). The challenges which were sometimes faced by Customers were Server breakdown at last moment (Mean=2.89), Technical Issues (Mean=2.74), Identity Theft (Mean=2.62) and Unavailability of safety measures (Mean=2.44). The least faced problems were Non Cooperation of Bank Staff and Inconvenience..

**Table 1: Challenges faced by customers in using New Age Payment and Settlement System**

Challenges faced in New Age Payment and Settlement System Services	Mean	S.D.	C.V.	Rank
Data Security and Privacy	3.19	0.489	0.15	1
Technical Issues	2.74	0.325	0.12	6
Non Cooperation of Bank Staff	2.25	0.418	0.19	9
Lack of Knowledge	3.08	0.502	0.16	3
No Scope of Personal Advice	2.98	0.459	0.15	4
Server breakdown at last moment	2.89	0.429	0.15	5
Unavailability of safety measures	2.44	0.366	0.15	8
Inconvenient	1.95	0.529	0.27	10
Phishing	3.16	0.419	0.13	2
Identity Theft	2.62	0.309	0.12	7

The table 2 is presenting the overall challenges faced by customers in using New Age Payment and Settlement System. According to results 86.22% Customers (N=269) have not faced much challenges in adoption of New Age Payment and

Settlement System, whereas 13.78% Customers (N=43) indicated that they have faced challenges in using New Age Payment and Settlement System. The mean score (27.58) indicates that overall customers have not faced challenges in adoption of New Age Payment and Settlement System.

**Table 2: Overall Challenges faced by Customers' in using New Age Payment and Settlement System**

Overall Challenges Faced	N	Percentage
No	269	86.22
Yes	43	13.78
Total	312	100
Mean Score	27.58	
Result	No	

According to results customers have not faced challenges in adoption of New Age Payment and Settlement System. To test whether the Customers' opinion about challenges faced in adoption of New Age Payment and Settlement System differs with respect to the type of bank; the independent two sample t-test was applied as presented in table 4.7.3. According to results the value of t-statistic is significant at 5% level of significance, which indicated that there is a significant difference in the opinion of Public and Private bank Customers.

As per the mean score analysis the Public bank customers (Mean=29.92) have faced more challenges in adoption of New Age Payment and Settlement System as compared to Private bank customers (Mean=25.42).

**Table 3: t-Test results to measure difference in Challenges faced by Public and Private bank Customers' in adoption of New Age Payment and Settlement System**

Type of Bank	Overall Challenges Faced		t-value	p-value	Result
	Mean	S.D.			
Public	29.92	4.58	9.313	0.000	Significant
Private	25.42	3.95			

Level of Significance=5%

Further to measure difference in Customers' opinion about challenges faced in adoption of New Age Payment and Settlement System with respect to their demographic variables, t-test and ANOVA test was applied and results received are presented in table 4 and 5. According to t-test results of table 4 there is a significant difference in the opinion of customers with respect to gender and area of residence. It was observed that females (Mean=31.19) have faced more challenges as compared to males (Mean=24.98) and rural customers (Mean=33.97) have faced more challenges as compared to urban customers (Mean=25.69). The table 5 is presenting the ANOVA results to measure significant difference in Customers' opinion with respect to the age, marital status, qualification and occupation. It can be observed that the F-statistic is significant for qualification only so it can be concluded that there is a significant difference in challenges faced by customers with respect to their qualification. The table 6 is presenting the mean scores of challenges faced by customers in adoption of New Age Payment and Settlement System with respect to their qualification. It can be seen that undergraduate customers (35.45) have faced maximum challenges whereas postgraduate customers (23.99) have faced least challenges

**Table 4: t-Test results to measure difference in Customers' Opinion about Challenges faced in adoption of New Age Payment and Settlement System with respect to their demographics**

Demographic Variable	Overall Challenges Faced		t-value	p-value	Result
	Mean	S.D.			
Gender	Male	24.98	15.272	0.000	Significant
	Female	31.19			

Area of Residence	Urban	25.69	3.88	15.022	0.000	Significant
	Rural	33.97	4.14			

Level of Significance=5%

**Table 5: ANOVA results to measure difference in Customers' Opinion about Challenges faced in adoption of New Age Payment and Settlement System with respect to their demographics**

Demographic Variable	Source of Variation	Sum of Squares	Degree of Freedom	Mean Sum of Squares	F-Ratio	P-value	Result
Age	Between Samples	504.874	3	168.291	0.911	0.454	Not Significant
	Within Samples	56897.456	308	184.732			
	Total	57402.33	311				
Marital Status	Between Samples	489.587	3	163.196	1.442	0.219	Not Significant
	Within Samples	34857.258	308	113.173			
	Total	35346.845	311				
Qualification	Between Samples	625.698	3	208.566	5.119	0.026	Significant
	Within Samples	12548.658	308	40.742			
	Total	13174.356	311				
Occupation	Between Samples	648.971	4	162.243	1.330	0.359	Not Significant
	Within Samples	37458.128	307	122.013			
	Total	38107.099	311				

Level of Significance=5%

**Table 6: Mean Scores of Challenges faced in adoption of New Age Payment and Settlement System**

Demographic Profile		Mean
Qualification	Undergraduate	35.45
	Graduate	28.01
	Postgraduate	23.99
	Other	26.26

**CONCLUSION:**

From this research following conclusions have been drawn:-

1. The major challenges faced by customers in using new age payment and settlement system were data security & privacy, phishing and lack of knowledge.
2. Public bank Customers has faced much more challenges in adoption of new age payment and settlement system as compared to private bank Customers.
3. The challenges faced by customers in using new age payment and settlement system were significantly different with respect to their gender, area of residence and occupation

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