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BANKING USERS' ADOPTION OF E-BANKING SERVICES IN BIHAR

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Abstract

Purpose: To explore the demand and adoption of e-banking services in Bihar

Demand/Methodology/Approach: The survey was conducted for 2 months using questionnaire made with four point Likert scale options with ten attributes tested. Every third bank customer that visited commercial banks to deal with any transactions is selected for the survey. Around 324 respondents were surveyed. The Demographic variables influence the usage of e-banking; the relationships between various

demographic variables are tested with one-way analysis of variance (ANOVA). A reliability analysis is carried out to check for the underlying dimension of the success factors generated through factor analysis.

Findings: Results indicate about the adoption of e-banking services in Bihar. Privacy and security are the major point of dissatisfaction of customers which have significantly impacted users', for the time being customers are satisfied with the network availability and access to account. Rural areas are in much concern than the urban areas in terms of trust issues, lack of information and also the service availability. Lack of literacy rate is also the major reason for dissatisfaction in the adoption of e-banking services in rural areas. This paper also indicates the adoption rate of e-banking services with respect to different segmentation of income level, age group, education level. The results are expected to provide a concrete contribution in the area of retail banking and in understanding consumer behaviour in the state of Bihar using banking services.

Keywords: **Internet Banking; Consumer Behaviour; M Connect; Bihar**

INTRODUCTION

Nowadays every bank is providing online services to their customers to provide Hassel free services with security [1]. In Bihar, the availability of internet networks and signals are useful in urban areas but quite dissatisfactory in urban areas [2]. Recently in Bihar started free WIFI zone facility for people of Bihar state in Patna only of range 20 km but internet facility is not safe [3]. Even the literacy rate of Bihar also plays a significant role in the adoption of e-banking services and the lack of the availability of accessories [4].

The rate of use e-banking services is different for the age group of people like the teenager are much more concern about the e-banking services and quit enjoying the facilities [5], but the older age groups are less active on online services [6]. Income level also affects the use and adoption of online services also the educational attainment matters [7].

Purpose: To explore the demand and adoption of e-banking services in Bihar.

Application/Methodology/Approach: A questionnaire is made and with four options according to banks privacy, services, requirements, products availability, fees, and charges.

Need for the Study: To know the rate of using the internet and online e-banking facilities by the people of Bihar belongs from a different region, age group, gender, qualification, and income. To understand the reasons affecting in the adoption of e-banking facilities by the customers as well as people of Bihar.

Boundaries of the Study

The following limitations are noticed during the research

1. The study was limited to commercial banks within Bihar and state banks with limited exposure. The findings cannot apply to other countries and foreign banks.
2. The information gathering was carried out by specific bank customers mainly at head office branches of Bank of Baroda.
3. The study is inadequate to the bank clients and further restricted towards the Internet Banking users to identify that if their expectations are mainly based on E-Banking Services in Bihar commercial banking environment.
4. The study is inadequate to the Banking industry of Bihar. So, the findings of the research cannot apply to other sectors.

LITERATURE REVIEW

The banking industry in India has a vast canvas of history, which covers the old business practices from the time of British to the transformations period [8]. Therefore, business in India has been through a long journey. Today business is known as innovative business [2]. The use of technology has brought an uprising in the working style of the banks. Information Technology has had a positive impact on alternatives for traditional funds movement services [9]. With networking and interconnection, new trials are arising related to security privacy and confidentiality to transactions [10]. In this paper, work is made to explain the changing banking scenario. The study also identifies the challenges and opportunities for the Indian banking sector in changing scenario [11].

Banks are offering different types of products for customer satisfaction and fulfilling the demand of money by lending as well as keeping deposits from customers [3]. As we know, the major part of India is rural areas, and the people are unaware of the products offered by the banks [10]. They use only selected goods or services from the bank, but to the lack of information, maximum products are not enjoyed by the customers of Bihar [12].

In order to know the rate of usage of internet and E-banking facilities in Bihar research has been done and on the basis of the age, education, qualification we came to understand the rate of development of internet services provided by bank and also to increase the speed of use of internet and e-banking facilities by knowing the customers difficulties.

METHODOLOGY

This study examines the factors affecting the adoption of e-banking services in Bihar. From the literature, factors are identified which are convenience accessibility, availability, bank management and Image, security concerns, privacy, design, content,

speed, fees, and charges. Anonymous questionnaires are randomly administered to a total of 360 respondents from a different district. The survey is managed by the call as such the response rate is satisfactorily healthy. To ensure content validity, the items used in the questionnaire are constructed by the extant literature. To assure their perceptions are based on experience, screening questions are asked to ensure that the respondents have used e-banking services before. “Table 1 According to this Table 1, the total figure of respondents is 360, 161 respondents (44.7 percent) have its place to rural areas followed by 119 (33.1 percent) from urban and 80 respondents (22.2 percent) from semi-urban areas.”

ANALYSIS AND INTERPRETATION

Table 1: Profile of the Sample Respondents.

Profile	No. of Respondents	% to total
Location		
Rural	161	44.7
Semi-urban	80	22.2
Urban	119	33.1
Sex		
Male	286	79.4
Female	74	20.6
Age		
Up to 25	86	24.2
26-40	216	60
Above 40	57	15.8
Education		
Secondary	42	11.7
Degree	145	40.3
Above Degree	173	48
Occupation		
Student	55	15.3
Housewife	18	5
Govt. Employees	136	37.8
Private Employee	120	33.3
Business/Self Employed	31	8.6
Monthly Income		
Up to Rs.10000	119	33
Rs.10001-25000	154	42.8
> Rs.25000	87	24.2
Computer at Home		

Yes	183	50.8
No	177	49.2
Total Sample	**360**	**100**

Analysis

It is agreed that male participants (79.4 percent) have outnumbered the women's 20.6 percent group. The respondent cluster with age between 26-40 years includes 60 percent and with age group, up to the age of 25 and beyond 40 years are just 24.2 per cent and 15.8 per cent respectively. In Education, 173 respondents are qualified higher degree, and above, 145 with 'degree' were as 42 respondents are with secondary education (Table 2). The government employees are the one of the largest group in the sample with 37.8 per cent and followed by private employees with 33.3 percent and student with 15.3 percent. Homemakers and Business/Self-employees comprise of a small sample. As far as the distribution of respondents by monthly income is concerned, there are 42.8 percent of the interviewees having income between Rs.10001-25000, 33.0 percent with income up to Rs.10000 and 24.2 percent of the participants with income above Rs.25000. out of 360, 183 respondents (50.8 percent) have stated to be having a computer at home.

Table 2: Internet center is the place of internet usage for 49.2 percent (177 out of 360) of total respondents.

Internet Place	Number of Respondents	% of Total
Home	145	40.3
Office	38	10.5
Internet Centre	177	49.2

Place of Internet Usage

As shown in Table 2, internet center is the place of internet usage for 49.2 percent (177 out of 360) of total respondents. While 145 respondents (40.3 percent) have reported being using the internet at home, only 38 out of 360 respondents (10.5 per cent) has stated that they use the internet at the office. So, it is found that around 50 percent of the respondents rely on internet center for using the internet in the study area (Table 3).

Table 3: ANOVA and Reliability Test on Factors Affecting E-Banking Acceptance.

Factors	F-value	Significance	Cronbach's alpha coefficient
Convenience	31.20	0.023*	0.8219
Accessibility	21.74	0.017*	0.9269

Feature availability	29.33	0.032*	0.9778
Bank management and image	32.41	0.027*	0.7281
Fees and charges	23.58	0.038*	0.8642
Privacy	29.68	0.001*	0.9932
Security	25.39	0.001*	0.9262
Design	39.27	0.066	0.6923
Content	23.72	0.042*	0.8793
Speed	35.63	0.021*	0.5728
Note: *Denotes significance at p>0.05			

Factors Influencing the Usage of E-Banking Services

The determinants of the adoption of e-banking services in Bihar are identified using the one-way ANOVA as shown in Table 3. Results reveal that convenience, easy accessibility, feature availability, bank management and image, fees and charges, privacy and security, design, content, and speed are relevant factors that are significantly affecting the adoption of e-banking at p >0.05. Meanwhile, privacy and security of e-banking transactions appear as two major attributes influencing the adoption of e-bank.

Reliability Test

A reliability analysis is carried out to check for the underlying dimension of the success factors generated through factor analysis. A thumb rule suggests that the acceptance Cronbach alpha value should exceed 0.7 (Table 4). The coefficient of at least 0.71, indicating that the questionnaire (n ¼ 324) has attained a high level of reliability for virtual banking in general rather. Hence, all variables are retained. Among the factors, Privacy factor has the highest ranking of Cronbach alpha of 0.993, followed by the security factor with 0.926. The design element has the lowest ranking with 0.692.

Table 4: Reasons for Adopting e-Banking/the Internet Banking.

Reasons for Adopting	Mean	SD	Ranking Order	Level of Agreement
IB is more convenient than in banking	4.94	0.99	9	A
Trustworthy than in-branch banking	5.14	1.03	4	A

Transaction Process can be done faster	5.08	1.16	6	A
Easy Maintainance of transaction in Branch Banking	5.04	1.08	7	A
IB is safer and more secure	4.98	1.44	8	A
Finance can be better Managed	5.09`	1.18	5	A
E-banking makes transaction simple	5.63	1.05	2	SA
Adapt to new technology	5.77	0.89	1	SA

From the Table 4 that the mean score for reasons ranged from4.94 Internet Banking is more convenient than in-branch banking to 5.71 (Like to use new technologies). The mean scores for all reasons except “IB has made banking easy” and “Like to use new technologies” are in “Agree” range (≥4.50 and <5.50). For other two remaining reasons mentioned above, the mean scores are “Strongly agree” range (≥5.50 and <6.50). So everyone who has adopted the e-banking has agreed with all statements pertaining to reasons for adoption of e-banking.

The bank customers in the sample were asked to give their opinion about the extent of services offered by their banks (Table 5). In the questionnaire 12 different services of banks were included and to get the status of these service in the banks, 7 point scale ranging from “Not available (NA)”, “Very poor (VP)”, “Poor (P)”, “Fair (F)”, “Good (G)”, “Very Good (VG)” and “Excellent (E)” with values 1 to 7 is given. The opinion of the majority of the cases in the sample is considered to ascertain the extent of services. The mean score with less than 1.50 indicates that the majority of the respondents in the sample stated as “not available”. Similarly, the mean score between “≥1.50-<2.50”, “≥2.50-<3.50”, “≥3.50-<4.50”, “≥4.50-<5.50”, “≥5.50-<6.50” and “≥6.50” is considered for “Very poor (VP)”, “Poor (P)”, “Fair (F)”, “Good (G)”, “Very Good (VG)” and “Excellent (E)” status respectively.

Table 5: Extent of Service Offered By Bank.

Services	Mean	SD	Status
Online Enquiry	4.26	1.55	fair
Online Payment	4.37	1.79	fair
ATM Card	5.27	1.59	good
Credit Card	4.46	1.8	fair
Debit Card	4.96	1.59	good
Internet Banking	4.71	1.79	good
Telephone Banking	4.21	1.91	fair

Depository Service	4.96	1.34	good
Investment Advisory Service	4.64	1.52	good
e-Transfer of Funds	4.69	1.59	good
Core Banking	5.03	1.64	good
Anywhere Banking	5.45	1.52	good

Table 5 presents mean and standard deviation of scores along with the status of the facilities. The above Table 5, it shows that the mean perception scores for all services between a lowest of 4.21 and highest of 5.45 (Table 6).

Table 6: Reasons for Not Adopting the E-Banking/Internet Banking.

Reasons for Adopting	Mean	SD	Ranking order	Level of agreement
Unsure about the security of Transactions	4.83	1.49	7	A
Can do all banking in other ways	4.69	1.32	9	A
Uncertain the benefit of E-banking	4.76	1.51	8	A
Have no access/limited access to internet	4.89	1.36	6	A
I cannot afford Internet fee	4.97	1.54	3	A
Not sure how it works	4.9	1.49	5	A
E-banking is complicated to use	5.02	1.61	2	A
Not aware of E-banking service	4.94	1.61	4	A
E-banking offers a limited range	4.39	1.92	10	N
No trust on internet as a channel for banking	5.17	1.47	1	A

Table 6 presents the detailed statistic results along with ranking order and level of agreement based on the mean perception scores about “reasons for not adopting internet banking” among bank customers. Bank customers who perceived not to avail of internet banking services (N=131) has been comprised of the analysis. In the questionnaire, ten statements are included to find out the reasons for not adopting e-banking using 7 point scale. The results of the study in this regard in Table 5. An observation of the Table 5 shows that the mean observation scores for all 10 statements range between 4.39 (E-banking offers a limited variety of services) and 5.17 (No trust on the internet as a channel for banking) (Table 7).

Table 7: Service performed in the banks via E-Banking/Internet Banking.

Services Performed	Mean	SD	Ranking order
Balance Enquiry	4.83	1.4	9
Deposits using ATM	4.44	1.64	13
Withdrawals using ATM	5.36	1.35	1
Credit Card Facilities	4.89	1.58	8
Debit Card Facilities	5.08	1.28	3
Internet Banking	4.93	1.56	5
Telephone Banking	4.47	1.6	12
e-Transfer of Funds	4.81	1.57	10
User friendliness of e-Banking	5.13	1.37	2
Reasonableness of Cost	4.91	1.5	6
Security of Transactions	5	1.52	4
Adequacy of Knowledge provided by Bank	4.9	1.52	7
Promptness in attending grievances	4.76	1.66	11

From the perusal of Table 7, the mean score is in the “Good” for “Deposits using ATM” (4.44) and “Telephone Banking” (4.47) and it has been in “Very Good” for all other remaining performed services in the banks. From the ranking of services items based on the mean scores, it becomes evident that “Withdrawals using ATM” is the service performed in the banks very much to the expectation of the bank customers. “User friendliness of e-Banking,” “Debit Card Facilities” and “Security of Transactions” are the other services performed very well in the banks to the bank customers’ expectation in that order. All other services than the above as well as other than “Deposits using ATM” and “Telephone Banking” performed by the banks are “Very Good.” The services such as “Deposits using ATM” and “Telephone Banking” performed by the banks are just “Good” in turn indicating.

FINDINGS AND CONCLUSION

Results suggest about the adoption of e-banking services in Bihar. Less information about the banking services and trust issues between the customer and banking authority. Urban areas are much concern and the user of e-banking services rather than the rural areas because of the trust issues, lack of information and also the service availability. Lack of literacy rate is the major dissatisfaction in the adoption of e-banking services in rural areas. The adoption of internet banking and services depends upon the

demographic region of the state and the income as well as the age group of the State. The availability of technology encourages the adoption but also the lack of information and awareness among customers leads to the decrease in the rate of the adoption of internet facility. Availability of computers, smartphones and the well-developed internet network in a state encourages the adoption on internet facilities but because of the poor internet coverage's in some part of Bihar leads to the decrease in use and adoption of internet services among customers. Students and employees use internet day today on broad basis because of being updated of technologies and service availability.

Though most of the customers choose manual banking over banking, the customers tend to use e-banking/internet banking. This is because acceptance of e-banking and internet banking services among the bank customers is meaningfully influenced by sometimes visiting the banks as well as some banking transactions per month. Most of the services through internet banking achieved in both public and private banks are beyond the anticipation of the customers. Likewise, various services provided by both public and private sector banks are more than adequate for customers.

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