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**“A PRAGMATIC ANALYSIS OF E- BANKING IN RAJASTHAN”**

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**ABSTRACT**

*Electronic banking* is a step to change client habits in the banking sector for the sustainable development in future. Online banking is the easiest way to Electronic banking. It is paperless banking which will reduce the cost of banking activities. Electronic banking means to promote environment friendly practices and to reduce the carbon footprint from banking operations. Banks, in India, had started various Electronic banking initiatives. These initiatives brought easiness to the customers and also helped the banks in reducing their cost of services. *Therefore the current research study is focused to evaluate the awareness, Issues and challenges of bank customers of selected Public and Private Sector Banks regarding Electronic Banking in aforesaid banks.* Though the current research concluded that Customers of Public and Private Sector banks had a pivotal role in making the Concept of E-Banking successful. Customers and of Public and Private Sector banks had a satisfactory attitude towards the present status of E- Banking in India. Their Attitude and perception towards Electronic Banking was high and slightly satisfied in case of Public Sector Banks under study but on contrary less satisfied in private sector banks. On the other hand, Issues and Challenges for adoption of E-banking were higher in Private sector bank with respect to Employees and Customers both in comparison to public sector banks under study.

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**KEYWORDS-** Banking, Electronic Banking, Sustainable Banking, Online banking, SBI & ICICI.

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## 1. INTRODUCTION-

The concept of *Electronic banking is comparatively a new concept. It is a paperless banking, which not only reduces the cost of banking activities, but also helps in environment sustainability. It helps in reducing the use of paper, power and energy. (Gordon and Natarasa, 2006).*

*Electronic banking* is making technological improvements, operational improvements and changing client habits in the banking sector. It means to promote environmental friendly practices and to reduce the carbon footprint from banking operations. It is a smart and proactive way of thinking with a vision of future sustainability.

*Electronic banking* is a step to change client habits in the banking sector for the sustainable development in future. Online banking is the easiest way to Electronic banking. It is paperless banking which will reduce the cost of banking activities. In December 2007, RBI issued a circular (RBI 2007-2008, 1216) highlighting the importance for bank to act with responsibility and contribute to sustainable development so that the impact of global warming can be reduced with the help of banking industry. Electronic banking means to promote environment friendly practices and to reduce the carbon footprint from banking operation. Electronic banking is a proactive way of future sustainability, but banks in India are running behind their counterparts from developed economies. They have started adopting Electronic practices, but still their impact on the environment is increasing. Number of banks had promised about investing in Electronic businesses and dropping their Electronic house emissions, but growing business in the banking sector meant more employees working in the well lit offices around the clock on more computers, demanding more electricity, which was often created by burning carbon dioxide and more air travel which were the key sources of global warming.

Many Indian banks like SBI, ICICI, HDFC and Axis have started to realize the importance and they are taking up various Electronic Banking initiatives: like promoting E-banking activities, spreading awareness and educating people in the respective field. Banks, in India, has started various Electronic banking initiatives. These initiatives bring easiness to the customers and also help the banks in reducing their cost of services. It is not possible to evaluate Electronic banking initiatives taken by all the banks in state of Rajasthan. *Therefore the current*

*research study is focused to evaluate the perception and opinion of bank customers of selected Public and Private Sector Banks and to comparatively study the issues and challenges regarding Electronic Banking in aforesaid banks.*

## **2. REVIEW OF LITERATURE:-**

**B. Dizon, J.A. (2009)** the bulk of their business in brick and mortar bank branches, the finance sector has been increasingly investing on e-banking facilities to offer 24-hour, queue-free services to their regular clients, whether through ATM machines, mobile phones or the Internet. "E-Banking's appeal is primarily its convenience. Clients now a-days want instant results; they don't want to wait anymore," said Francisco M. Caparros, Jr., senior vice-president of Asia United Bank and president of Banc Net. It's also turned out to be a more efficient way to process transactions, as e-banking does away with most of the paperwork that clients have to accomplish. "A lot of people don't like filling forms," Mr. Caparros added. "Online banking, in particular, relies on usernames and passwords which need to be protected," said Ferdinand G. La Chica, first vice- president and marketing group head for Sterling Bank of Asia. These anti- theft barriers are at times supplemented by transaction passwords and "tokens", often a keychain-like device that is issued to the client and generates random, one-time passwords to enable him to log into his account online. Last year, the Rural Bank Association of the Philippines announced that its members are looking to appoint local merchants like sari-sari stores as third party agents where consumers can open new accounts and make large payments. Such informal outlets will enable banks to reach out to small-income businesses and individuals, particularly those in the agrarian sector, most of who are based outside the city center

**Uppal, R.K. & Chawla, R. (2009)** this study highlights customer perceptions regarding e-banking services. A survey of 1,200 respondents was conducted in October 2008 in Ludhiana district, Punjab. The respondents were equally divided among three bank groups namely, public sector, private sector and foreign banks. The present study investigates the perceptions of the bank customers regarding necessity of e-banking services, quality of e-banking services, bank frauds, future of e-banking, preference of bank customers regarding banks, comparative study of banking services in various bank groups, preferences regarding use of e-channels and problems

faced by e-bank customers. The major finding of this study is that customers of all bank groups are interested in e-banking services, but at the same time are facing problems like, inadequate knowledge, poor network, lack of infrastructure, unsuitable location, misuse of ATM cards and difficulty to open an account. Keeping in mind these problems faced by bank customers, this paper frames some strategies like custom education, seminars/meetings, proper network and infrastructure facilities, online shopping facilities, proper working and installation of ATM machines, etc., to enhance e-banking services. Majority of professionals and business class customers as well as highly educated and less educated customers also feel that e-banking has improved the quality of customer services in banks.

**Reeti, Sanjay, and Malhotra, A. (2009)**, stated about the Customers' perspectives regarding e-banking in an emerging economy. So that, the author determining various factors affecting customer perception and attitude towards and satisfaction with e-banking is an essential part of a bank's strategy formulation process in an emerging economy like India. To gain this understanding in respect of Indian customers, the study was conducted on respondents taken from the northern part of India. The major findings depict that customers are influenced in their usage of e-banking services by the kind of account they hold, their age and profession, attach highest degree of usefulness to balance enquiry service among e-banking services, consider security & trust most important in affecting their satisfaction level and find slow transaction speed the most frequently faced problem while using e-banking.

**Hsun, K.S. (2008)**, this study considers the coherence of the financial service sector and adopts different observational variables to identify innovation capital (training and R&D density) and process capital (IT system sufficiency). The results show that human capital has a direct impact on both innovation capital and process capital, which in turn affect customer capital; while finally, customer capital affects business performance. In addition, there is a negative relationship between process capital and customer capital in the financial service sector. It suggests that in the financial service sector, customer satisfaction relies on a sufficient degree of training and R&D density. Intemperate investment on the support of e-banking operation systems may not be a good answer.

**Laukkanen, P., Sinkkonen, S. & Laukkanen, T. (2008)** The purpose of this paper is to further the understanding of innovation resistance by dividing internet banking non-adopters into three groups based on their intentions to use the innovation. Thereafter, the aim is to identify how the resistance differs in these customer groups. This study identifies three groups of internet banking non-adopters, namely postpones, opponents and rejecters. The data were collected by conducting an extensive postal survey among the retail banking customers in Finland who had not adopted internet banking. The measurement development was based on consumer resistance theory and the earlier literature on internet banking. Principal component analysis was used to classify the resistance items into five adoption barriers derived from the earlier literature. Thereafter, analysis of variance was used to analyze the statistical differences in resistance to internet banking between the three groups. Significant differences were identified between the groups explored. The resistance of the rejecters is much more intense and diverse than that of the opponents, while postpones show only slight resistance. The results also indicate that psychological barriers are even higher determinants of resistance than usage and value, which are constructs related to ease-of-use and usefulness determining acceptance in the traditional technology acceptance model. Moreover, the findings highlight the role of self-efficacy in bank customers' risk perceptions to internet banking. This study provides further understanding of what inhibits internet banking adoption by comparing three non-adopter groups with respect to their resistance to internet banking. It also has implications for management in overcoming non-adopters' resistance to the innovation postpones, opponents and rejecters. The data were collected by conducting an extensive postal survey among the retail banking customers in Finland who had not adopted internet banking. The measurement development was based on consumer resistance theory and the earlier literature on internet banking. Principal component analysis was used to classify the resistance items into five adoption barriers derived from the earlier literature. Thereafter, analysis of variance was used to analyze the statistical differences in resistance to internet banking between the three groups. Significant differences were identified between the groups explored. The resistance of the rejecters is much more intense and diverse than that of the opponents, while the postpones show only slight resistance. The results also indicate that psychological barriers are even higher determinants of resistance than usage and value, which are

constructs related to ease-of-use and usefulness determining acceptance in the traditional technology acceptance model. Moreover, the findings highlight the role of self-efficacy in bank customers' risk perceptions to internet banking. This study provides further understanding of what inhibits internet banking adoption by comparing three non-adopter groups with respect to their resistance to internet banking. It also has implications for management in overcoming non-adopters' resistance to the innovation.

**Routray (2008)**, the study describes that Mobile and Wireless communication devices are becoming enablers for organizations to conduct business more effectively and efficiently. One of the most effective applications is mobile banking (m-banking). For any application to gain recognition technological advancements play a vital role. To make m-banking application a success bandwidth management is an important issue. The increased flexibility and mobility feature of wireless ATM and its bandwidth on demand function is motivating a large number of carriers towards deployment of the WATM networks. But there are certain issues which are required to be addressed in WATM. The issues are cost effective planning of network, location management and handover management. In this paper we have suggested and evaluated a technological framework for the m-banking application using wireless ATM which optimizes the bandwidth usage and provides an effective handover management. Simulation result show that the resultant framework is very effective in handling the bandwidth and the handover issue in wireless ATM and provides an effective WATM framework model

### **3. RESEARCH METHODOLOGY:-**

#### **Objectives:-**

- To compare the level of awareness of customers regarding Electronic banking and identify the factors affecting adoption of Electronic banking in selected banks.
- To examine various issues and challenges faced by public and private sector banks regarding Electronic banking.

#### **Hypothesis:-**

- **Null Hypotheses A**
  - **H<sub>0</sub>**: There was no significant difference in level of awareness among customers related to Electronic banking in the selected Private and Public sector Banks.

- **Alternate Hypotheses A**
  - **H<sub>1</sub>**: There was a significant difference in level of awareness among customers related to Electronic banking in the selected Private and Public sector Banks.
- **Null Hypotheses B**
  - **H<sub>0b</sub>**: There was no significant difference in issues and challenges related to Electronic Banking faced by Private and Public sector Banks.
- **Alternate Hypotheses B**
  - **H<sub>1b</sub>**: There was a significant difference in issues and challenges related to Electronic Banking faced by Private and Public sector Banks.

The researcher included qualitative and quantitative research design which examined the perception of customers of the selected Public and Private Sector banks of Jaipur, Rajasthan towards the Electronic banking practices conducted by their respective banks and also to analyze the issues and challenges prevailing among Electronic banking perspectives of public and private sector banks as general.

**Sample Size** = 207 Customers of Banks

**Sampling Technique**- Stratified random Sampling Technique

#### **4. RESULTS & ANALYSIS:-**

##### **DEMOGRAPHIC ANALYSIS OF CUSTOMERS OF VARIOUS BANKS AS RESPONDENTS**

In the current research study Rajasthan is chosen as the universe of study. Customers from Public and Private sector banks (Viz SBI, PNB, BOB and ICICI, HDFC, AXIS bank respectively) were analyzed in research. Demographic details of respondents are analyzed in table 1 below:-

**TABLE 1 DEMOGRAPHIC DETAILS OF CUSTOMERS AS RESPONDENTS**

Sample characteristic	Category	Frequency (No. of respondent)	Percent
Total Respondents	→	<b>207</b>	
<b>Gender</b>	Male	142	68.59%
	Female	65	31.41%
<b>Age Group ( Years)</b>	18-28	24	11.59%
	28-38	54	26.08%
	38-48	49	23.67%
	Above 48	80	38.64%
<b>Family Income ( Rs in Laks)</b>	200000-300000	58	28.01%
	300000-400000	64	30.91%
	400000-500000	39	18.84%
	Above 5000000	46	22.22%
<b>Bank of Respondents (Private Sector)</b>	Axis Bank	34	16.42%
	HDFC	33	15.94%
	ICICI	40	19.32%
<b>Bank of Respondents (Public Sector)</b>	PNB	33	15.94%
	SBI	33	15.94%
	BOB	34	16.42%

**INTERPRETATION:**

Demographic study means study of both quantitative and qualitative aspects of selected human population. Quantitative aspects include composition, age, gender, size, and structure of the population. Qualitative aspects are the research specific factors, such as bank details, etc. Both Male and Female customers of Public and Private sector banks were analyzed as respondents of current study. 68.59% of respondents were male and 31.41% of respondents were



female. This states that no. of Male customers utilizing bank services are comparatively higher than female customers.

Another parameter was the age group of customers and it was found that maximum respondents 38.64% were above 48 years of age and the minimum respondents 11.59 were between 18-28 years of age. The remaining 26.08% respondents were between 28-38 years and 23.67% were between the ages of 38-48 years.

One more important demographic parameter which correlates with current research study is Family Income of respondents. 28.01% of respondents were from family income range of Rs 2 Lacks to Rs 3 Lacks. 30.91% of respondents which have the maximum percentage of respondents in one family income group were from average income of Rs 3 lacks to Rs 4 Lacks. No. of respondents in family income category of Rs 4 Lacks to Rs 5 Lacks and Rs 5 Lacks and above were 18.84% and 22.22% respectively.

*To comparatively analyze the objective of research respondents were analyzed from three public sector and three private sector banks, frequency analysis of these respondents with respective to bank was equally distributed, i.e. 15% to 16% in most of the banks except 19 % respondents from ICICI bank.*

## 4.2 DESCRIPTIVE STATISTICS AND HYPOTHESES TESTING

Above mentioned Hypotheses were analyzed by applying Leven's test for equality of variance followed by t test on above variable:-

**TABLE 2 TESTING OF HYPOTHESIS 1**

Independent Samples Test										
VARIABLE AND BANK_TYPE		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Awareness towards Electronic banking	Public Sector Bank	7.001	.009	-2.838	148	.005	-0.23	0.08	-0.39	-0.07
	Private Sector Bank	4.904	.028	-1.769	155	.079	-0.15	0.09	-0.33	0.02

**TABLE 3 TESTING OF HYPOTHESIS 2**

Independent Samples Test										
VARIABLE AND BANK_TYPE		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Issues of Electronic Banking	Public Sector Bank	.648	.422	7.426	148	.000	0.59	0.08	0.43	0.75
	Private Sector Bank	1.453	.230	4.062	155	.000	0.34	0.08	0.18	0.51
Challenges for Electronic Banking	Public Sector Bank	1.132	.289	2.138	148	.034	0.19	0.09	0.01	0.37
	Private Sector Bank	.008	.930	.570	155	.569	0.06	0.10	-0.14	0.25

**INTERPRETATION:-**

As stated earlier correlation analysis have measured relationship between two different variables. Therefore in case of customers of banks correlation was found between various variables by correlating R value.

Correlation between awareness towards Electronic banking and Perception towards Electronic banking was analyzed and R value was found to be 0.443. Secondly, Awareness towards Electronic banking and Issues of Electronic banking was analyzed and R value was found to be 0.557. Lastly, correlation of awareness towards Electronic banking and challenges for Electronic banking was significantly associated as R value was found to be 0.325.

Correlation between Perception towards Electronic banking and Awareness towards Electronic banking was analyzed and R value was found to be 0.443. Secondly, Perception towards Electronic banking and Issues of Electronic banking was analyzed and R value was found to be 0.544. Lastly, correlation of Perception towards Electronic banking and challenges for Electronic banking was significantly associated as R value was found to be 0.435.

Correlation between Issues of Electronic banking and Awareness towards Electronic banking was analyzed and R value was found to be 0.557. Secondly, Issues of Electronic banking and Perception towards Electronic banking was analyzed and R value was found to be 0.544. Lastly, correlation between Issues of Electronic banking and challenges for Electronic banking was significantly associated as R value was found to be 0.514.

Correlation between Challenges for Electronic banking and Awareness towards Electronic banking was analyzed and R value was found to be 0.325. Secondly, Challenges for Electronic banking and Perception towards Electronic banking was analyzed and R value was found to be 0.435. Lastly, correlation of Challenges for Electronic banking and Issues of Electronic banking was significantly associated as R value was found to be 0.514.

## **HYPOTHESES TESTING**

Above hypotheses testing interperates that as the tailed value in Public sector banks seems to be significant in above variable, it can be postulated that **Null Hypothesis H<sub>0</sub>**: *There is no significant difference in level of awareness among customers related to Electronic banking in the selected Private and Public sector Banks is **rejected*** and **Alternate Hypothesis H<sub>1</sub>**: *There is a significant difference in level of awareness among customers related to Electronic banking in the selected Private and Public sector Banks is **accepted and Proved**.*

I In the study of issues of Electronic banking as an important variable of current research it was found that at 148 degree of freedom t value was 7.426 and f value was obtained at 0.648, which is significant in case of Public sector bank at significance value of 0.422.

Whereas in case of Private sector at 155 degree of freedom, t value was found to be 4.062 and f value were 1.453, which is significant at significance value of 0.230.

#### **HYPOTHESES TESTING:-**

Above hypotheses testing interperates that as the 2 tailed value in Private sector banks seems to be significant in above variable, it can be postulated that **Null Hypotheses D H<sub>04</sub>** *There is no significant difference in issues and challenges related to Electronic Banking faced by Private and Public sector Banks* is **rejected** and **Alternate Hypotheses D H<sub>1.4</sub>**: *There is a significant difference in issues and challenges related to Electronic Banking faced by Private and Public sector Banks* is **accepted and Proved**.

#### **5. CONCLUSION:-**

Sustainable development can best be achieved by allowing markets to work within an appropriate framework of cost efficient regulations and economic instruments. Financial institutions such as banking sector is one of the major sectors which influence overall industrial activity and economic growth. In a globalised economy, the industries and firms are vulnerable to stringent environmental policies, severe law suits or consumer boycotts. Since banking sector is one of the major stake holders in the Industrial sector, it can find itself faced with credit risk and liability risks. Further, environmental impact might affect the quality of assets and also rate of returns of banks in the long-run. Thus the banks should go Electronic and play a pro-active role to take environmental and ecological aspects as part of their lending principle, which would force industries to go for mandated investment for environmental management, use of appropriate technologies and management systems.

Though the current research concluded that Customers of Public and Private Sector banks had a pivotal role in making the Concept of Electronic Banking successful. Customers and of Public and Private Sector banks had a satisfactory attitude towards the present status of

Electronic Banking in India. Their Attitude and perception towards Electronic Banking was high and slightly satisfied in case of Public Sector Banks under study but on contrary less satisfied in private sector banks. On the other hand, Issues and Challenges for adoption of Electronic banking were higher in Private sector bank with respect to Employees and Customers both in comparison to public sector banks under study.

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