

## **The Study of Barriers and Challenges of Core Banking Implementation in Banking System of Iran and India (E-Banking predisposing)**

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### ***1- Abstract:***

*This study attempts to identify the main reasons and barriers of core banking development in banking system of Iran and India, and for this purpose, the research process was implemented after proportional stratified random sampling. The Present study is descriptive-analytical type and the method of research is causal –comparative that has been performed in survey mode. It should be noted that Ferguson's theory has been considered as the theoretical frame work for the present study. And, descriptive statistics and society mean (average) calculation have been used in data analysis. Based on comprehensive review on related thematic literature; organizational barriers, financial barriers and technical-technology barriers are main identified obstacles. According to performed studies, it is concluded that organizational factors as the first and most influential factor and afterward technological factors and ultimately financial factors respectively in Iran and financial factors as the first and most influential factor, afterward technological factors and ultimately organizational factors respectively in India have influenced on improvement and implementation of core banking.*

**Keywords:** Core Banking, Challenges and Barriers, E-Banking

### **1-Introduction**

The Development and expansion process of information technology and electronic business has been so accelerated throughout the world that paying attention to these issues and planning in order to use the information and communication technology in the country has become inevitably necessary specially core banking development and electronic funds transfer system.

Nowadays in banking industry this macro view has been engendered and all the banks have come to this conclusion that in today's comparative world that every day witness the emersion of a new phenomenon in global banking industry, and the use of an integrated banking system in order to keep their customers and their position seems to be a

certain affair. In fact, core banking establishment is not a choice but is quirement.

A world change with the help of technology and information technology, internet and consequently e-government and e-commerce which itself is derived from information technology has created profound changes in communication and information transfer process. These conditions have produced the context in order to facilitate commercial activities and transaction, which has led to, increase the competition between organizations.

Banks also as the institutions, which operate in various financial and monetary are asare not except and face with various threats and obstacles in their affairs, so in order to overtop them(obstacles) ,they should have comparative advantages in for achieving the potential opportunities of market and conquest on them.

Researches have shown that banks unprecedentedly enhance their profitability by increasing the number of their loyal and first-rate customers and creating effective satisfaction on them (Kolodinsky, et al, 2004).

Nowadays, most of the banks are faced with a quite dynamic environment and all the banks, big or small have titled the attraction and retaining of business customers on their own agenda with consideration of rapid changes in such a competitive situation and prevailing market conditions

On the other hand, the customers have more opportunitiesto compare services and customer's judgment about bank is strengthened according to bank's ability in assisting for solving the problems and business development.

The most important factors in choosing a bank by customer are security, speed of transaction,

friendship with customer, convenience and ease of use, trust and privacy issues .(Sylvie Laforet and et al, 2005, SerkanAkinci and et al 2004).

Therefore, the most important feature that can be counted for core banking is rapid communication with all addressees and rendering services based on individual needs.

## 2-Conceptual model of research

The Study and review of existing concept and literature in core banking establishment field demonstrate that effective factors on core banking are classifiable in two general levels: soft factors and hard factors (H.C.Lau and et al, 2001). And the soft factors are those that their evaluation measurement are relatively difficult and it is emphasized on long-term (W.G. Lewis and et al, 2006).

Culture, awareness, labor and human relations, resistance, variability(David Miller and et al,2004) ,training(education), coordination, security, decision making, organizing, and such a subjects

are considered as the soft factors(W.G. Lewis and et al, 2006).

In this research, soft barriers have been classified in the form of organizational barriers and administrative barriers. However, hard factors are more system-oriented and have supportive role for soft factors usage(W.G.Lewis and et 2006 ,al).Technical and economic infrastructure, funding for network expansion (Ian Smith and et al, 2005), Investments, providing related software and hardwares and issues like this are considered as the hard factors (Klaus and et al, 2007).

All research studies are based on conceptual framework that the considered variables determine the relation between them (Edward and et al, 1379, 23).

With consideration of review on related thematic literature, it can be declared that four factors influence on core banking implementation and improvement that render in the form of the following diagram.

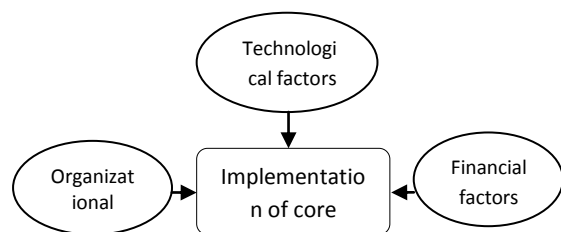


Figure 1: research conceptual framework

Table 1: supportive resources

factors	resources
<b>Technological factors</b>	Fillis& et al., (2004), Nath & et al., (1998), Purcell& et al., (2004), Mukti, (2000); Miller, (1996), Chaffey, (2002); Dholakia& et al, (2004); Sathye & et al., (2002); Pollard & et al., (1998)
<b>Financial factors</b>	Pollard & et al., (1998); Shen & et al. (2004); Dholakia&Kshetri (2004); Polard (2002); Chaffey, (2002); Miller, (1996); Mukti. (2000); Pollard, & Hayne (1998); Flynn, & Purchase (2000); Purcell, & Toland, (2004); Nath. & et al., (1998); Fillis, & et al., (2004);
<b>Organizational factors</b>	Fillis, & et al., (2004); Nath. & et al., (1998); Purcell & Toland, (2004); Flynn, & Purchase, (2000); Miller, (1996); Colcchia, (2000); Polard, & Williams, (2002); Dholakia, & Kshetri, (2004); Pollard, & Hayne (1998); Kosiure, D. (1997); Ling (2001)

current status (core banking system barriers) and has requested the experts that evaluate the components of the main variables one by one in the form of desirable and current status. Finally, measure the gap between current and desirable status, and prioritize the presented factors and constraints in the form of research variables and suggest some solutions in order to improve and develop the core banking.

In This research the IT and core banking managers and experts in Iran and India are employed. These individuals are included IT and core banking experts and managers in the banking system of Iran and India, who are related directly or indirectly with core banking term. These people are included managerial board delegations, senior managers, median managers, senior experts and related experts to studied subject. As in present study, the target population of the IT and core banking managers and experts encompassed 1560 members in Iran and 2910 in India. And to determine of the sample size for estimating proportion 500 member ,183 of Iran and 317 from Indian IT and core banking managers and experts, was selected by stratified sampling, so the descriptive statistics and the average calculation are used (by using SPSS software).

#### 4-Data analysis

The Questionnaire of this research has been compiled based on Likert type; moreover, the demographic information has been shown in following table:

Table 1- Demographic features description (Iran)

		Number	Frequency percentage
<b>Sex</b>	male	38	%76
	female	12	%24
<b>Work experience</b>	Less than 2 years	-	-

### 3- Research methodology

The Present study is a descriptive-analytic sort of research that is conducted in scaling mode. Initially, the researcher designs a questionnaire that present it in two adjacent columns with consideration of research variables of desirable status (improvement and expansion of core banking system) and the

	2-4 years	10	%20
	5-9 years	11	%22
	Over 10 years	29	%58
	20-25	4	%4
	26-30	17	%34
<b>Age</b>	31-35	20	%40
	36-40	4	%8
	Over 40 years	5	%10
<b>Organizational post</b>	manager	16	%32
	expert	34	%68

table 1- Demographic features description (India)

		Number	Frequency percentage
<b>Sex</b>	male	23	%46
	female	27	%54
<b>Work experience</b>	Less than 2 years	2	%4
	2-4 year	11	%22
	5-9 year	17	%34
	Over 10 years	20	%40
<b>Age</b>	20-25	12	%24
	26-30	10	%20
	31-35	16	%32
	36-40	10	%20
	Over 40 years	2	%4
<b>Organizational post</b>	manager	29	%58

Organizational post	expert	21	%42
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#### 4-1- Findings Research

**Hypothesis 1-1:** Organizational factors prevent the core banking implementation and improvement in banking system of Iran.

**Hypothesis 1-2 :**Organizational factors prevent core banking implementation and improvement in banking system of India.

**Hypothesis 2-1:**Technology factors prevent the core banking implementation and improvement in banking system of Iran.

**Hypothesis 2-2:** Technology factors prevent (hinder) core banking implementation and improvement in banking system of India.

**Hypothesis 1-2 :**Organizational factors prevent implementation and core banking improvement in banking system of India.

**Hypothesis 2-1:**Technology factors prevent core banking implementation and improvement in banking system of Iran.

**Hypothesis 2-2:**Technology factors hinder core banking implementation and improvement in banking system of India.

**Hypothesis 3-1:**Financial factors hinder the core banking implementation and improvement in banking system of Iran.

**Hypothesis 3-2:**Financial factors hinder the core banking implementation and improvement in banking system of India.

Table 2, the averages comparison between desirable status and current status of research hypothesis (Iran)

hypotheses	desirable status	current status average	Gap average	Test result
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First: (technology dimension)	/59 4	2/64	1/95	Confirm the hypothesis
second : (organizational dimension)	/48 4	2/28	2/20	Confirm the hypothesis
third : (financial dimension)	/32 4	2/73	1/59	Confirm the hypothesis

**Table 2**, the averages comparison between desirable status and current status of research hypothesis (India)

Test result	Gap average	current status average	desirable status average	hypotheses
Confirm the hypothesis	2/11	2/41	4/52	First : (technology dimension)
Confirm the hypothesis	1/76	2/49	4/25	second : (organizational dimension)
Confirm the hypothesis	2/32	2/06	4/38	third : (financial dimension)

According to what was mentioned, four dimensions such as organizational, technology and

financial are considered as the barriers of core banking implementation and improvement in banking system of Iran and if we intend(want) to prioritize these barriers, according to the study's results, organizational factors with average 19/2 are primarily and having the widest gap. Technology factors with average 2/02 are placed in the second rate (order) and financial factors with average 1/59 come in the last grade that in the respondents' view have less importance in comparison with other examined factors.

**Table 3**, Prioritization of core banking establishment barriers (Iran)

variable	Gap average	Importance level	Efficiency level
Organizational factors	2/19	First rate	Medium to high
Technology factors	2/02	Second rate	Medium to high
Financial factors	1/59	Third rate	Medium to low

**Table 3**, Prioritization of core banking establishment barriers (India)

variable	Gap average	Importance level	Efficiency level
Financial factors	2/32	First rate	Medium to high
Technology factors	2/11	Second rate	Medium to high

Organizational factors	1/76	Third rate	Medium to low
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## 5- Result and Discussion

In this section with consideration of researcher's exploratory issues and with employing of questionnaire and interview's results with experts and connoisseurs in the core banking field, we are presenting a series of suggestions and solutions in elimination of problems and barriers in core banking development and improvement of three dimensions of technology, organizational and financial in banking system of Iran.

Identifying the e-banking mission at the global level in management dimension and strategic approach adoption by chief information officer(CIO) seems essential in core banking field. Moving towards core banking should be considered as a long-term plan instead of cross-sectional and momentary plan.

Managing frequent changes in core banking projects causes disruption in projects implementation trend and sometimes it is left undone, therefore, it is suggested that the organization attempt more in order to identify and use and keep appropriate and deserved managers in core banking field in both countries' organizations. According to research findings, the greatest weakness about Iran in organizational factors, is related to alignment and coordination in decision-making and implementer center is centralized in development and improvement of banking, so it is recommended that in order to clarify the purpose and organization's path in core banking field, the joint meetings between

The staff managers and executive managers are hold, since all the members reach a common perspective on this field.

On the other hand, it should be attempted outmost, that in decision-making meeting of staff managers in core banking field, executive managers present and their views should be considered and their full

participation will be attracted in decision-making and implementation processes.

- A comprehensive and accurate planning must be made and pursued continuously in order to furnish training and knowledge updating, attitude and human resources skills in core banking.
- According to research findings, another problem in this area is lack of group job moral in related project simple emendation of core banking at the organizations, because on electronic projects, group working is the pre-requisite of providing and supporting the core banking needed systems, To solve this problem, setting goals for groups and giving team rewards is suggested in order to strengthen group job moral in the banks of studied countries.
- One of the major weaknesses in both studied countries' banks in technology dimension is related to security factor of data exchange environment in core banking system.

In order to provide the data security against unauthorized access to the network and high reliability of it which involves(ensures) the consistency and continuity of service, in such a way that by providing communication quality, the information(data) are transmitted without error, The appropriate equipment and technology (including network, hardware and software) should be used. And on the other hand, the organization must have the ability of servicing and supporting the core banking such as designing and developing and updating the database and having the quick solution of problems and systematic and network defects for providing the necessary assurance coefficient, so, it is suggested to allocate more facilities and equipment to this sector .

However, this discussion about India that needs to get more strengthen in financial dimension, should lead to compiling and reviewing of financial strategies.

- Another weakness in the technology sector, is the lack of qualified personnel (specialists) in core banking field in both countries, therefore, it is necessary to place the quantity and quality development of expert force on the agenda. However, the lack of experts in this area can get



overcame by retraining of current forces and adopting appropriate methods for attracting and maintaining of experts in core banking field.

On the other hand, (in order to utilize the experts updated knowledge of developed countries, start having the communication. In addition, using of academic experts' knowledge can be effective in this field.

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