# DETERMINANTS OF CUSTOMER PATRONAGE FOR ONLINE BANKING OUTLET CHOICE IN EMERGING ECONOMIES

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### **ABSTRACT**

The basic aim of this empirical research study is to examine the determining factors of consumer patronage in choosing an online banking outlet. This empirical research efforts to recognize those factors associated with the bank shortlisting process of online customers. The determining factors related to pre-usage, during-usage and after-usage stages of online banking are shortlisted out from interviews and observations in the study area. The online baking customers' expectations towards these determining factors are chronicled on a five-point likert-scale through an organized questionnaire from a derived sample of 600 online banking consumers Visakhapatnam city in India. These determinants are assessed by adopting and executing multivariate analytical tool i.e., factor analysis to govern most persuading factors related to electronic-banking selection, thereby advises the online banking outlets to think on implementing the most-weighty determinants acknowledged in this study.

**Keywords:** Factor Analysis - Online Banking - Electronic Banking - Determinants of Online Banking — Determinants of E-Banking.

### INTRODUCTION

India is an emerging economy in the world and online banking is considered to be an emerging sector of India. Nowadays, individuals are busy in their professional lives, that they are not even having time to travel to the bank outlet for their banking transactions. Netbanking permits individuals to embrace out most of their transactions employing a safe website, that is functioned by their individual banks. Online banking permits banking operations for users from anyplace, any or every time and is employed for making transactions, payments etc through ease and fewer value transactions either through web or phone or through any electronic delivery channels. Banking is presently now not only restricted to the physical branches wherever one must approach the physical branch in physical presence, to withdraw or deposit money or a cheque or request a statement. Within the developing/emerging countries, customers currently focusing into alternative supernumerary channels like on-line channels for banking that offer them a lot of convenience in terms of your time, efforts, value and its ease. So, the e-banking has currently become a lot of essential in several developing/emerging countries, thanks to the actual fact that it is the most reasonable and affordable manner of providing banking services: (Arunachalam & Siva Subramanian, 2007).

Online banking/Internet banking may be demarcated as performing money transactions over the web through a bank's web site. Creating use of on-line banking, commercial banks could greatly increase the market coverage and higher track customers further. According to the sources, "Business Wire (1995) in October 1994", Internet based online banking services were

provided by SFCU ("Stanford Federal Credit Union"). Khalfan et al. (2006) opined that internet banking supports banks to enhance and retain the loyalty of their existing clienteles/customers, scale back admin cost and operational price, increase client satisfaction, progress banks' competitive positions and spots against their rivals and supply chance to banks to extend their market share.

Using on-line Banking, the banks will diminish their operational costs, whereas customers furthered because of the speed, availableness and measure being of web banking choices. It's vital for banks to spot client desires and needs to satisfy them (Ali & Raza, 2017). From the strategic purpose of review, internet/online banking service has empowered the varied banks completely distinguished from different ancient banks in terms helpful adding to the consumer wishes and demands among the time of digital (Moghavvemi et al., 2018). In on-line banking section, on-line service quality has been crucial for banks as a result of, it'd impact on-line banking consumer's satisfaction (Ayo et al. 2016). Alonso-Dos-Santos (2020) found various the attributes with the extreme impact on tele banking consumers' loyalty are trust, use and satisfaction. Amin (2016) noticed that e-service quality is important element/determinant of on-line banking satisfaction for the users. Pei-Wen (2010) identified that service quality positively effects behavioral and psychological intentions, customer satisfaction and customer delivered value; and customer satisfaction significantly and positively influenced by customer value.

### **History of Online Banking**

The conception of on-line banking had evolved means back within the early Eighties once it had been initial pictured and experimented. However, Presidential Savings Bank initial proclaimed it within the year 1995 on sixth Oct. The thought was quickly unfold to the opposite banks like Wells metropolis, Chase Manhattan and Security initial Network Bank. ICICI was the primary bank in Bharat (India) to initiate the net banking in 1997.

However usage redoubled solely in 1999 thanks to lower ISP on-line charges, redoubled penetration of computers and technology friendly atmosphere. In initial stages of online banking, most banks used a really easy layout, that allowed users to register, see their accounts and statements and create transfers from one account to the opposite. In modern-day through on-line banking one also can organize for a loan, found out direct debits and pay bills online-all with simply many clicks of the mouse.

Initially lots of consumers did not trust the idea of online banking. For examples, fear with hackers, who can commit theft, the account information. However, with the standardisation of security system and payment process online banking grew in popularity.

### **Factors Influencing of Usage of Online Banking**

Johnston (1997) demonstrates that some of activities, such as growing the processing speed, providing accurate information to consumers/customers, are prospectively to partake a substantial outcome in terms of satisfying clienteles; and other actions, such as educating the trustworthiness and reliability of devices and equipment, will remove/reduce psychological dissatisfaction instead of delighting the customers and finally recommends that the bakers should reduce customer dissatisfaction first and try to increase customer satisfaction. Barczak et al. (1997) focused on a point that the online banking users may be segmented based on their philosophy of money management and their intentions for use of technology-based bank services

and its channels of service delivery. Carlson (2000) observed that progressions in banking technology made it very easier for the users to establish multiple banking connections and made them to modify the purchase decision making process of the customer. Micheal (2003) concluded that online banking services make the banks to increase the efficiency in data management, increase in ability to assess potential customers, calculating creditworthiness of prospective customers and their credit scoring.

Eriksson, et al. (2004) found that perceived-usefulness of online banking is a key construct for encouraging patron use for banks. They recommend that the reformulated TAM (technology acceptance model) must be used to improve perceived usefulness of service embedded in technology. It was also found in their research that trust is yet additional significant aspect that influences the acceptance of Online banking. Akinci at al. (2004) organised a research study with an objective to analyse the attitudes of consumers and the adoption of internet banking. Their random sample includes academicians, both (non-users as well as users of internet banking), with different demographic, behavioural and attitudinal characteristics. The study discovered that there are important transformations existing among the psychological attitudes of no-users and users related to their profiles of demographics.

Guriting (2006) studied the factors influencing practice of internet/online banking in Malaysia Borneo and found that the perceived-ease-of-use and the perceived-usefulness are the factors measured to be essential that determines the reception and usage of numerous technology-based operations. Singhal Divya and Padhmanabhan (2008) study revealed that the determinants influencing online banking are fund transfer, transaction security, ticket booking, utility request and utility transaction. It was also found that more than 50 percent of the respondents perceived that online baking is provides flexible and convenient ways to perfume banking transactions with related benefits. Maenpaa and Katariina (2008) revealed in their study that "security" was not an issue for any of the consumer/user groups. Further they have found that users' perceptions varied in four - out of seven constructs/dimensions of online banking services the standard of proficiency is examined. Gikandi and Bloor (2009) studied the determining factors that affect the efficiency of e-commerce and the adoption in retail outlet businesses in Kenya. They have conducted two surveys, an preliminary survey in 2005 and a follow-up survey in 2009, found that banks controlling 90% of formal retail banking in Kenya.

Rod et al. (2009) observed that there are positive associations among online-customer-service-quality, bank-service-product-quality, online-information-system-quality, overall customer satisfaction and online banking service quality. Malhotra & Singh (2010) concluded that online bankers (in India) frequently motivating their consumers to perform more transactions through online.

Hasim & Salman (2009) conducted a research study in Malaysia and settled that that there is sustainability of internet usage among Malay youth. Chong et al. (2010) conducted research in Vietnam and found that factors considered are trust, government support, perceived-ease-of-use and perceived-usefulness to determine the effect on online banking adoption.

# **Challenges of Online/Internet Banking**

The challenges of online (internet) banking are presented in Table 1.

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	Table 1					
S.No	S.No Author (s) CHALLENGES OF ONLINE/INTERNET BANKING Challenges of Online Banking					
1	Hood (1979)	There is a high association between demographic profiles of online banking consumers and consumers' usage patterns of e-banking.				
2	Ram and Sheth (1989)	The customer resistance and customer dissatisfaction are foremost origins of market failure of innovation.				
3	Lee and Turban (2001)	The customers vacillate to adopt online banking services for of privacy and security issues.				
4	Aladwani (2001)	Safety and security the furthermost stimulating problems for the banks. Apart from them building and retaining the trust of customers is also a encounter for online banking.				
5	Huang et al. (2004)	The security problems in online banking influences customer acceptance and customer satisfaction.				
6	Kannan (2004)	Lack of governmental policies and international standards that monitors online banking procedures and transactions across borders.				
Source:	Source: Review of Previous Studies on Online Banking					

# Review of Literature: Internet/Online Banking Consumer Behaviour

The online (internet) banking consumer behavior is the study of actions and activities of online banking users/consumers in three phases namely, pre-banking phase, during banking phase and post-banking phase. In each and every phase there are convinced variables/attributes that will partake effect on the customer decisions while performing online banking. The detailed review of literature is presented in the Table 2.

	Table 2 REVIEW OF LITERATURE ON ONLINE BANKING				
S.No.	S.No. Author (s) Consumer Satisfiers				
1	Johnston (1997)	Increasing the speed of processing information Reliability of equipment			
2	Gurau (2002)	Security and Quality of Internet Population Internet Knowledge Levels. Quality/reliability of online banking services Government support			
3	Guriting (2006)	Perceived-ease-of-use Perceived-usefulness			
4	Srivastava and Rajesh Kumar (2007)	Price Security Trust			
5	Singhal Divya and Padhmanabhan V(2008)	Fund transfer Security Ticket booking			

		Utility transaction
		Utility request
		Consumer's attitude towards virtual banking
6	Grabner-Krauter (2008)	Internet trust
		Consumer's perceived risk
		Flexibility
		Web/Network usability
7	Loonam and O'Loughlin (2008)	Service recovery
, 	Loonam and O Loughim (2008)	Information quality
		Trust
		Access
		Customer-satisfaction
		Overall-internet-banking-service-quality
8	Rod. at al. (2009)	Online-information-system-quality
		Banking-service-product-quality
		Online-customer-service-quality
		Ownership of the bank and Financing pattern
9	Malhotra and Singh (2010)	Range and Extent of Internet banking services
9	Wallotta and Shigh (2010)	Prior Experience of the bank in offering Online/Internet banking
		Size of the bank
		Government support
10	Chong et al. (2010)	Trust
		Perceived usefulness
Source:	Review of previous studies on Online	Banking

## Research Gap

Online banking in India is still at premature stage. Most of the studies conducted on online banking were in eastern and western countries where online banking is at matured stage. As there are a few studies conducted in Asian countries like India, this study can be one of the rare studies which is conducted in Southern city of India, Visakhapatnam.

All the reviewed studies (including Table 1 and Table 2) are concentrated on various attributes of perceived risk, strategic risk and reliability risk. But those studies hardly concentrated on attributes of operational risk of online banking from customer point of view. This study identified various online banking determinants at operational level as presented in the Table 3. Unlike previous studies, this study used the statistical tool factor analysis to recognize the most expected variables/attributes of internet (online) banking by consumers so that bankers can implement those online banking attributes for their consumers.

### **Determinants of Consumer Patronage for Online Banking In Visakhapatnam City**

To identify the most determining factors of consumer patronage for online banking, a series of interviews and observations are conducted in the research study geographical area (i.e Visakhapatnam city). Table 3 demonstrations the list of identified determinants (variables) of consumer patronage for online banking. To invent out determinants that give highest amount of patronage to the customers to perform online banking, factor analysis is applied on these variables to reduce them into definite number of factors/dimensions.

LISTO	Table 3 LIST OF IDENTIFIED DETERMINANTS OF CONSUMER PATRONAGE FOR ONLINE BANKING					
S.No	Online Banking Determinants (Variable)	Description of Variable				
1	Balance Check	Online option to check account balance.				
2	Online Shopping	Provision of to perform online shopping bill payment.				
3	Cheque book request	Provision of requesting cheque book online.				
4	National Pension Scheme	Provision of depositing instalment in National Pension Scheme.				
5	SIP/MF/Share Market	Provision of paying term investments.				
6	Public Provident Fund	Provision of depositing instalment in Public Provident Fund Scheme.				
7	Filing Grievance	Option of registering complaint online.				
8	Online transfer	Option of transferring money online to other party with prior registering and approval.				
9	Viewing account statement	Provision of viewing account statement online.				
10	For issue Demand Draft	Provision of issuing Demand Draft online.				
11	Bill Payments	Option of paying bills online.				
12	Donations	Option of making donations online.				
13	Quick Transfer	Option of quick transfer of money without registering the other party online.				
14	Compliance/legal/regulatory risk	Reducing the risk related to compliance, legal, regulatory risk.				
15	Add/changes nominees	Adding or changing nominees for bank account.				
16	For SMS alert	Option of getting SMS alert to the mobile for the transactions done.				
17	Security Risk	Reducing the security risk and making safe/secure online banking transactions.				
18	International Fund Transfer	Provision of making International Fund Transfers.				
19	Credit card payments	Paying the credit card bills.				
20	Spend Analyser	Provision of having spend analyser to perform analysis on spending.				
21	Operational Risk	Reducing the operational risk in making online transactions.				
22	Income Tax Statement	Provision of generating and viewing Income Tax statement.				
23	Privacy risk	Reducing the privacy risk for online banking.				
24	System Design Risk	Provision of having user-friendly system design and reducing the risk.				
Source: I	nterviews and observations are conduc	cted in the study area				

# **The Study Objectives**

The principal objective is to analyse the determining factors/determinants of patronage of online banking customers. This empirical study efforts to classify the factors/determinants related to the banking usage process of online/internet consumers/customers. The determining factors/determinants are assessed by adopting multivariate-analysis-tool i.e., factor analysis to

identify/determine the utmost inducing determinants of online banking, thereby advise the bankers to deliver those utmost substantial determinants acknowledged in this study.

### **Research Design**

Primary data was collected from 600 online banking customers in Visakhapatnam city using judgement sampling after confirmatory opinion whether they performed internet/online banking for banking needs. The study focuses on noting the expectations of the online banking customers on recognized attributes/variables of online banking. An organized questionnaire is premeditated to capture the expectations of online banking consumers towards the identified determinants of online banking presented in Table 1. (The study area profile is presented in Annexure I).

The respondents are enquired to offer their expectations towards online banking on a five-point likert-scale ("Most-Expected [5], Expected [4], Slightly- Expected [3], Least-Expected [2], Not-at-all Expected [1]"). The Questionnaire which is structured also distillates on demographic profile of respondents (online customers) and also efforts to analyse the banking behavior of online or internet customers.

**Reliability Test (Cronbach's Alpha):** "Cronbach's Alpha" value is calculated on the primary data collated through the questionnaire and found to be .759 for 600 sample which designates that the data have moderately higher internal consistency (75.9%). The alpha value greater than .70 is the level of recommendation: (Bernardi 1994).

## **Demographic Profile of Respondnets (Online Banking Consumers)**

In this segment, an effort has been executed to study and analyse demographic profile of respondents (online consumers). This specific analysis aids the bankers to strategy for their online services basing on variables like "gender, age group, income, education, occupation and size of family". This analysis also aids in preparation of their banking services, media-selection, customer communications, promotion of the banking and related services etc. The following are the observations made from this analysis.

	Table 4		
Demographic Attribute	MOGRAPHIC PROFILE ONLINE BANK Categories of Demographic Attribute	Frequency	%
Gender	Male	420	70.00%
	Female	180	30.00%
Age	Age between years 15 - 20	15	2.50%
	Age between years 21 - 30 years	350	58.33%
	Age between years 31 - 40 years	150	25.00%
	Age between years 41 - 50 years	60	10.00%
	Age above 50 years	25	4.17%
Occupation	Students	45	7.50%
	Unemployed	65	10.83%
	Employed	330	55.00%
	Business people	160	26.67%

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Education	Education "Less than or 5 <sup>th</sup> " Standard	2	0.33%
	Education "5 <sup>th</sup> to 9 <sup>th</sup> " Standard	18	3.00%
	Education "SSC / 10 <sup>th</sup> " Standard	45	7.50%
	Education "10 + 2" (Intermediate)	89	14.83%
	Education UG Degree	271	45.17%
	Education PG Degree	150	25.00%
	Education MPhil/PhD	25	4.17%
Income per	Income "Up to Rs.5,000/-"	20	3.33%
Month	Between "Rs.5,001/- to Rs.10,000/-"	160	26.67%
	Between "Rs.10,001/- to Rs.20,000/-"	255	42.50%
	Between "Rs.20,001/- and Rs.50,000/-"	110	18.33%
	Income "More than Rs.50,000/-"	55	9.17%
Size of Family	Two	90	15.00%
	Three	250	41.67%
	Four	220	36.67%
	Five	30	5.00%
	Six	10	1.67%
Source: field data	ı	•	<u> </u>

The tabular analysis on the demographic profile of online banking consumes is depicted in Table 4.

It is analysed that in the total 600 online banking users (sample respondents), 420 (70%) users are male and 180 (30%) users are female.

In the total sample 600 users, 15 (2.5%) users are in "the age group of 15 - 20 years", 350 (58.33%) users are in "the age group of 21 - 30 years", 150 (25%) users are in "the early middle age group (31 – 40 years)", 60 (10%) users are in "the late middle age group 41 - 50 years" and 25 (4.17%) users are in "old age group (above 50 years)".

The users are categorized into four distinct groups based on their occupation, students 45 (7.50%), unemployed 65 (10.83%), employed 330 (55%) and business people 160 (26.67%). The respondents are categorized into seven groups basing on their education, 2 (0.33%) respondents have less than or 5<sup>th</sup> class education, 18 (3%) have 5<sup>th</sup> to 9<sup>th</sup> class education, 45 (7.5%) completed secondary education, 89 (14.83%) completed intermediate education, 271 (45.17%) are having Under-Graduation degree, 150 (25%) are having post graduation degree and 25 (4.17%) are having MPhil/PhD degrees.

The respondents are classified into five groups basing on the income levels, 20 (3.33%) users have monthly-income "up to Rs.5,000/-", 160 (26.67%) users have monthly-income in "between Rs.5,001/- and Rs.10,000/-", 255 (42.50%) users have monthly-income in "between Rs.10,001/- and Rs.20,000/-", 110 (18.33%) users have monthly-income in "between Rs.30,001/- and Rs.50,000/-", another 55 (9.17%) users have monthly-income "more than Rs.50,000/-" per month.

The user family size is divided into five distinct groups, 90 (15%) users have family-size two, 250 (41.67%) users have family-size three, 220 (36.67%) users are having family-size four, 30 (5%) users have family-size of five and 10 (1.67%) of users have family-size six.

# **Banking-Behaviour of Online Consumers**

Table 5 BANKING-BEHAVIOUR OF ONLINE BANKERS					
Variable	Categories of Banking-Behaviour Variable	Frequency	%		
	Daily	13	2.17%		
Frequency	Weekly	80	13.33%		
of online/	Bi-Weekly	60	10.00%		
internet	Monthly	212	35.33%		
banking	Bi-Monthly	10	1.67%		
	As per banking requirement	225	37.50%		
Most	"1st week of month"	250	41.67%		
preferred	"2 <sup>nd</sup> week of month"	100	16.67%		
week for doing	"3rd week of month"	30	5.00%		
banking	"4th week of month"	220	36.67%		
	Transaction "Less than Rs.1000/-"	205	34.17%		
Average	"Between Rs.1000/- to Rs.5000/-"	225	37.50%		
Amount of transaction	Between "Rs.5000/- to Rs.10000/"	100	16.67%		
	Transaction "More than Rs.10000/-"	70	11.67%		
	News Papers	180	30.00%		
Source of	Television	230	38.33%		
Information about	Radio	30	5.00%		
bank site	Internet Ads	100	16.67%		
	Social Networking Sites	60	10.00%		
	Google Chrome	250	41.67%		
Internet	Internet Explorer	100	16.67%		
Browser used while online	Mozilla Firefox	130	21.67%		
shopping	Opera	15	2.50%		
	Any browser	105	17.50%		

**Source:** Field data.

The online/internet banking-behavior of consumers is critically analysed and presented in the Table 5. The study of banking behavior online/internet users empowers the bankers to formulate and implement their banking strategies. The following observations are made from this analysis.

The frequency of doing online/internet banking is detected, out of 600 sample size, the frequency of online banking is found to be daily 13 (2.17%) users, weekly 80 (13.33%) users, biweekly 60 (10%) users, monthly 212 (35.33%) users, bi-monthly 10 (1.67%) users and 225 (37.50%) of users are doing online banking as per requirement of banking needs.

The utmost ideal/preferred week of online banking in the month has been studied. Out of 600 sample, online customers performing online banking in "first-week-of-the-month" are 250

(41.67%), "second-week-of-the-month" 100 (16.67%), "third-week-of-the-month" 30 (5%) and 220 (36.67%) of the consumers perform online baking in fourth-week-of-the-month.

The average amount per transaction for online banking, out of the sample 600, 205 (34.17%) users are doing the transaction less than Rs.1000/- in online banking, 225 (37.50%) of the users are doing transaction with an amount between Rs.1000 and Rs.5000, 100 (16.67%) users are doing transaction with an amount between Rs.5000/- to Rs.10000/- and 70 (11.67%) users are doing transaction with an amount more than Rs.10000/-.

The information sources accessed by the bank customers to know about bank sites are identified to be Newspapers for 180 (30%) users, TV for 230 (38.33%) users, Radio 30 (5%) users, Internet ads 100 (16.67%) users and Social-Networking/Social-Media sites/platforms as a source for 60 (10%) users.

Out of 600 respondents from the study area, 250 (41.67%) online/internet banking users are using the web browser - Google Chrome, Internet Explorer used by 100 (16.67%) users, Mozilla Firefox by 130 (21.67%) users, Opera by 15 (21.67%) users and lasting 105 (17.50%) use whatever available browser for online banking.

# Performing Factor-Analysis on the Data of Determinants of Customer Patronage Towards Online Banking

An effort was executed to study and analyse the determinants of customer patronage towards online banking by performing multivariate analysis (factor analysis for data reduction). To know and regulate the reliability of data, the reliability test i.e. Cronbach's Alpha was performed on the data of online banking users (customers) expectations. Cronbach's Alpha values is found to be .759, which shows that the data is 75.9% reliable.

Bartlett's Test and Kaiser-Meyer-Olkin (KMO) Test for reliability of data of Determinants of Customer Patronage towards online banking

Table 6 BARTLETT'S TEST AND KMO FOR ONLINE BANKING DETERMINANTS				
Measure of Sampling Adequacy - Kaiser-Meyer-Olkin 0.669				
	Chi-Square (Approx.)	6790.61		
Bartlett's Test of Sphericity	df	190		
	Sig.	.000		

Source: Calculations output.

The value of KMO was found to be 0.669 (0.5 is the recommended level: Hair et al. 1998). The value of Bartlett's Test of Spherincity ( $\chi^2$  =6790.61) is found to be significant (p < .001, df 190). Finally, it can be determined that the data composed on online banking determinants is suitable for factor analysis in Table 6.

### **Factors – Online Banking Customer Patronage Determinants**

Table 7 FACTORS - DETERMINANTS OF ONLINE BANKING					
Factor	Eigen Values	% Total variance	Cumulative %		
PAYMENTS	5.456	28.78	28.78		
BASIC SERVICES	2.897	11.15	39.93		
REQUESTS	2.215	10.96	50.89		
RISK	1.425	7.14	58.03		
INVESTMENT	1.248	6.48	64.51		
INCOME & SPENDING	1.145	5.41	69.92		

**Source:** Calculations output.

After application of factor analysis tool on data, twenty-four variables/determinants were compacted and reduced to six factor constructs/dimension and totally explained 69.92% of overall variance. The six constructs/dimensions/factors are provisionally named as shown in the Table 7 as Payments, Basic Services, Requests, Risk, Investment, and Income & Spending

### Factors Determining Customer Patronage for online banking - Factor Scores Matrix

"FIRST FACTOR" - PAYMENTS: This factor is provisionally named as PAYMENTS ("formed with an Eigen value of 5.456, variance of 28.78% and four allied variables"). The allied variables/attributes are Online transfer (0.923), Credit card payments (0.878), Bill Payments (0.7120) and Quick Transfer (0.515).

"SECOND FACTOR" – BASIC SERVICES: This factor is provisionally named as BASIC SERVICES ("formed with an Eigen value of 2.897, variance of 11.15% and four allied variables"). The allied variables/attributes are Balance Check (0.845), Viewing account statement (0.798), Filing Grievance (0.614) and Online Shopping (0.536).

"THIRD FACTOR" - REQUESTS: This factor is provisionally named as "REQUESTS" ("formed with an Eigen value of 2.215, variance of 10.96% and three allied variables"). The allied variables/attributes are Check Book Request (0.814), For Issue Demand Draft (0.756) and For SMS Alert (0.525).

"FOURTH FACTOR" – RISK: This factor is provisionally named as "RISK" ("formed with an Eigen value of 1.425, variance of 7.14% and four allied variables"). The allied variables/attributes are Security Risk (0.858), Operational Risk (0.669), Compliance/legal/regulatory risk (0.547) and Privacy risk (0.578).

"FIFTH FACTOR" – INVESTMENT: This factor is provisionally named as "INVESTMENT" ("formed with an Eigen value of 1.248, variance of 6.48% and three allied variables"). The allied variables/attributes are Public Provident Fund (0.858), National Pension Scheme (0.747) and SIP/MF/Share Market (0.625).

"SIXTH FACTOR" – INCOME & SPENDING: This factor is provisionally named as "INCOME & SPENDING" ("formed with an Eigen value of 1.145, variance of 5.41% and two allied variables").

The allied variables/attributes are Spend Analyser (0.769) and Income Tax(0.647) in Table 8.

Table 8 MATRIX OF FACTOR SCORES - DETERMINANTS OF INTERNET/ONLINE BANKING						
Variables/Determinants	PAYMENTS	BASIC SERVICES	REQUESTS	RISK	INVESTME NT	INCOME& SPENDING
Online transfer	0.923					
Credit card payments	0.878					
Bill Payments	0.712					
Quick Transfer	0.515					
Balance Check		0.845				
Viewing account statement		0.798				
Filing Grievance		0.614				
Online Shopping		0.536				
Cheque book request			0.814			
For issue Demand Draft			0.756			
For SMS alert			0.525			
Security Risk				0.858		
Operational Risk				0.669		
Compliance/legal/regulatory risk				0.547		
Privacy risk				0.578		
Public Provident Fund					0.858	
National Pension Scheme					0.747	
SIP/MF/Share Market					0.625	
Spend Analyser						0.769
Income Tax Statement						0.647
Extraction Used: "Principal Com	ponent Analysis I	Method with Var	rimax rotation wi	th Kaiser	· Normalisation '	

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Removed Factors: Out of twenty-four variables/determinants, four determinants were eliminated after performing factor analysis. They are System Design Risk, International Fund Transfer, Donations and Add/changes nominees.

### **DISCUSSION**

After performing factor analysis, it is identified that the online banking consumers are motivated by the determinants like Online Payments, Basic Online Services, Requests, Risk, Investment, and Payment & Spending. To retain existing online customers and to entice new customers, the bankers must partake to take due care of these factors/determinants. The online banking website/portal must be very user-friendly, comprehensible and its web-design must be in an amicable and approachable method with fast and secure transactions.

The attributes related to online payments and basic online services are identified as highly expected determinants for customer patronage for online banking. The portal must allow the consumers to perform payment related operations like online transfer, credit card payments, bill payments and quick transfer. Apart from these attributes, the portal must provide the basic services like balance check, viewing account statement, filing grievance and online shopping. After the determinants Payments and Basic Services, the attributes related to Requests and Risks are identified as second highly expected determinants for customer patronage for online banking. The portal must facilitate the online consumers to process the requests related to retail banking transactions by the consumers. The online banking portal must be able process the requests like cheque book request online, issuing demand draft online and requesting SMS alert to their mobile phone while performing retail and online transactions etc are highly expected attributes for an online banking consumer. Apart from these attributes, the attributes related to avoidance of various risks associated with online banking are also working as determinants of customer patronage for online banking. The online banking portal must avoid various risks associated with online banking like security risk, operational risk, compliance/legal/regulatory risk and privacy risk.

After the determinants Requests and Risks, the attributes related to Investment and Income & Spending are identified as third highly expected determinants for customer patronage for online banking. The portal must facilitate the online consumers to process online investment activities like public provident fund, national pension scheme and SIP/MF/share market. Apart from these attributes, the attributes related to Income and Spending are also working as determinants of customer patronage for online banking. The online banking portal must track the income and spending patterns of the customers by providing the tools like spend analyser and online income tax statement.

### **CONCLUSION**

It can be concluded that the users/customers are motivated to perform internet/online banking mostly for the determinants like online transfers, credit card payments, bill payments and quick transfer. The online banking websites must make easy operating and consistent with respect to these factors. The study proposed a model of online banking attributes that motivate the consumers with six factors namely Payments, Basic Services, Requests, Risk, Investment, and Income & Spending.

## **Managerial Implications**

The study can be useful for the bankers, bank managers and bank marketers to design new models of services delivery which enhance the customer satisfaction. The customer needs can effectively be satisfied through identifying most expected online banking attributes and offer them through bank web portals to consumers. This study identified that the most expected online banking services are payment services which include attributes like online transfer, credit card payments, bill payments and quick transfer. The second most expected online banking services are basic services which include attributes like balance check, viewing account statement, filing grievance and online shopping. As this study proposed a new model for determining most expected online banking services, it is suggested to banking industry to conduct this study in respective countries for implications of the attributes in the online banking portals.

### **Theoretical Implications**

The theoretical implications are the consumers are mostly motivated by the online banking services attributes like online transfer, credit card payments, bill payments, quick transfer, balance check, viewing account statement, filing grievance and online shopping.

The consumers are also motivated with other services like check book request, for issue demand draft, SMS alert, security risk, operational risk, compliance/legal/regulatory risk and privacy risk.

### **Limitations and Future Directions**

The study was executed in one city i.e., Visakhapatnam city only (in India), the study sample may not be exact representative for the entire study area geography wise appropriately, so that the probabilities of stirring the study sampling error is "moderate to high". The same research study can be organised transversely the cities in India and in the world. The determinants of online banking used in this research are based on the study area and it is strenuous only on twenty-four variables/determinants, but in the real-world, there can be more variables/ determinants/attributes existing that may motivate online banking consumer. The same research can be organised in other industries / sectors like online retailing, online investment, online insurance, online education etc.

ANNEXURE 1						
PRO	PROFILE OF THE STUDY AREA (VISAKHAPATNAM)					
Location Visakhapatnam District, Andhra Pradesh State, India.						
Latitude & Longitude	Between "17°-15' and 18°-32' Northern latitude" and "18°-54' and 83°-30' in					
	Eastern longitude".					
Geographical area	11161 Sq. Kms					
Population 4.28 million						
Male Population	2.140 million					
Female Population	2.147 million					
Urban population	3.53 million					
Rural population	1.301 million					
Density of population	384 per Sq.Kms					
Sex Ratio	1003 Females per 1000 Males					

The litera	67.7 percent

**Source:** Official state Government reports (Aponline.gov.in).

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