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### RESEARCH ARTICLE

#### CUSTOMER PERCEPTION ON ONLINE BANKING - A STUDY IN SELECT NATIONALISED BANKS

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#### Abstract

Banking industry in India experienced great changes in the millennium of 2000 AD and later. This article is an attempt to know what generation Y and generation Z feels and perceive about their online banking experiences. Especially about the nationalised banks which they have patronised since their youth. Data has been collected from primary sources from account holders of nationalised banks and secondary data from various reports and articles on banking. Further these data has been analysed using arithmetic mean and descriptive statistics. Conclusion are drawn based on these statistical tools.

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#### Introduction:-

Indian banking field experienced a sea change by the end of the year 2000 as a result of the Narasimham committee reports. Further this committee recommendation opened the Indian banking field for foreign players. The foreign players brought with them new technologies and ideas in banking. This forced Indian banks both private and nationalised to take up computerisation as well as digitisation of their activities in a large scale. The direct beneficiaries of this banking revolution are the generation Y account holders followed by generation Z account holders. (Bencsik Andrea, 2016) Stated that generation Y are the people who were born in between 1980 and 1995 they have seen both the old technology as well as the new existing technology in banking, whereas the generation Z account holders dived into online account operation from the day one itself.

Online banking refers to a bunch of banking services offered by banks which includes some of the following features:

1. Mobile banking
2. Internet banking
3. Debit card and Credit card
4. Electronic fund transfer (RTGS, NEFT)
5. Automated teller machines (ATM)
6. UPI and wallets

All these facilities have become integral of a bank account opened these days and are considered quintessential.

#### Significance and Novelty of the study:

This study is an attempt to throw some light on the perceptions of two varied generations of customers in three of the leading nationalised bank branches located in the metropolitan city of Bangalore. Further, the city is a home to a diverse demography, which will make the study a different one and understand the perceptions of online banking.

**Review of Literature:-**

The literature review for this study revolves around knowing the facets of online banking and the perceptions of online banking service users. The studies made in the field and the future prospects. Some of the literature relating to online banking perceptions are discussed as under:

(Nila Armelia Windasari, 2022) in their research found that firm reputation, promotions, features, curiosity, and rewards given by the banks to customers play a crucial role in digital banking arena.

(Luís Filipe Rodrigues, 2022) researched on the XYZ generations and found that generation Y expected unlimited banking access without restrictions whereas generation Z expected frequent updates in the banking applications so that the bank they are dealing with is up-to-date with real world.

(Holzhauer, 2021) viewed that digital banking is an ongoing process which will embrace people of all generations, further banks shall also invest significant amount of funds on security of online banking, long term relationship creation and maintenance is the need of the hour and a balance between bank-customer relation and digital banking has to be continued.

(Rocío Carranza, 2021) stated that banks have to improve the perceived ease of use and convenience in their online banking interfaces to maintain and increase market share.

(Mashali, 2020) found from their research that banks need to keep their internet banking, telephone banking and allied service apps updated in order to maintain and increase market share.

(A. Meharaj Banu, 2019) researched and found that adequacy, ease of use and cost efficiency of internet banking has a direct relationship with online banking and customer satisfaction in the Indian scenario.

(George, 2018) discovered from his study that banks have to create safe environment for their customers. This can happen by conducting sessions on online banking by a dedicated employee or preparing a video or handout so that customers can understand and learn safe banking habits. Further banks also have to adopt latest technology to give the best possible service to their customers.

(Goh MeiLing, 2016) opined that web design, content, convenience and speed of internet banking services given by a bank has a direct relationship between customer satisfaction and internet banking.

**Research Gap:**

Research has been conducted on online banking perceptions in many parts of the world targeting different age groups and types of banks, but in a country like India dominated by a diverse population and banking system this type of study is lacking. This study is an attempt to find out the customer perception of online banking in select nationalised banks targeting generation Y and Z customers in the metropolitan city of Bangalore.

**Objectives of Study:-**

1. To study the various online banking services provided by the nationalised banks.
2. To know the perception of generation Y and Z customers about the various online banking services provided by the nationalised banks.

**Hypotheses of the Study:**

1. (H0) There is no significant difference between the perception of online banking by generation Y and generation Z customers of nationalised banks.
2. (H1) There is a significant difference between the perception of online banking by generation Y and generation Z customers of nationalised banks.

**Methodology of the study:-****Sources of data:**

The study is based on primary data as well as secondary data. Primary data is collected from generation Y and generation Z customers of SBI, PNB and BOB through a structured questionnaire prepared and circulated through

google forms. The secondary data is collected from articles reports and other media sources.

**Population and period of the study:**

Primary data has been collected from 150 generation Y and generation Z account holders from SBI, PNB and BOB over a period of two months during August 2022 and September 2022.

**Plan of analysis:**

The collected data has been analysed using descriptive statistics. Lower the p value there is significant difference between the perceptions of customers in the three banks. So  $P = 0.5$  or greater than  $0.5$  is not significant,  $P = 0.2 - 0.5$  significant,  $p = 0.00 - 0.2$  is highly significant.

**Sampling method:**

Convenient sampling method has been adopted to collect primary data.

**Limitations of the study:**

The study is limited only to generation Y and generation Z customers of the selected nationalised banks namely SBI, PNB and BOB in Bangalore urban district.

**Profile of the banks:**

**State Bank of India (SBI):**

State Bank of India is an India-based banking and monetary administrations organization. The Company's portions incorporate Treasury, Corporate/Wholesale Banking, Retail Banking and Insurance Business. The Treasury section remembers the whole venture portfolio and exchanging for unfamiliar trade agreements and subsidiary agreements. The Corporate/Wholesale Banking section includes the loaning exercises of corporate records bunch, business client's gathering and pushed resources goal bunch. The Retail Banking section involves retail branches, which essentially incorporates individual financial exercises, including loaning exercises to corporate clients, and furthermore incorporates office business and robotized teller machines (ATMs). The Insurance Business fragment involves the aftereffects of SBI Life Insurance Co. Ltd. furthermore, SBI General Insurance Co. Ltd. It is engaged with giving a scope of items and administrations to people, business endeavours, huge corporates, public bodies and institutional clients.

**Punjab National Bank (PNB):**

Punjab National Bank (the Bank) is an India-based bank. The Bank's portions incorporate Treasury, Corporate/Wholesale banking, Retail banking and other financial activities. The Treasury fragment remembers the whole speculation portfolio and exchanging for unfamiliar trade agreements and subsidiary agreements. The Bank gives different financial administrations, for example, agribusiness banking, retail banking, depository tasks, corporate banking, trader banking, non-occupant Indian (NRI) administrations, store administrations, advanced financial administrations and shared reserves. Its depository administrations incorporate current stores, investment funds stores, term stores, repeating stores, Capital Gain Account Scheme and Gold Monetization Scheme. Its credit portfolio incorporates retail advances, horticulture advances, miniature, little and medium ventures (MSME) credits and corporate advances. Its different administrations incorporate money the executives administrations, send out/import finance, gold card conspire for exporters, doorstep banking administration and internet exchanging.

**Bank of Baroda (BOB):**

Bank of Baroda is taken part in giving banking and monetary administrations in India. Its portions incorporate Treasury, Corporate/Wholesale Banking, Retail Banking and Other Banking Operations. Its geological section incorporates Domestic Operations and Foreign Operations. It offers individual financial administrations, which incorporate investment accounts, current records, and term stores. It gives a scope of computerized items, which incorporates moment banking, for example, Internet banking, portable banking, cards, WhatsApp banking, advanced signage frameworks (DSS), self-administration passbook printers, and mechanized teller machines (ATMs). It offers a scope of credits, for example, home advance, individual credit, vehicle advance, fintech, training advance, and gold credit. It gives shipper instalment arrangements, Baroda DigiNext Cash Management Services, BarodaINSTA, SmartTrade, Bharat Bill Pay, BhimAdhaar Baroda Pay and Internet Payment Gateway. It has 8,185 branches and 11,535 ATMs and money recyclers upheld by self-administration channels.

**Profile, results, analysis and findings****Respondent profile****Gender profile of respondents:****Table 01:-** Interest income earned by the banks.

Gender	Frequency	Percentage
Male	84	56
Female	66	44
<b>Total</b>	150	100

(Source: Primary data from survey), (Table compiled by author)

The data for the study was collected from 84 male respondents and 66 female respondents who are account holders in the banks subjected for study.

**Age profile of respondents**

Age	Frequency	Percentage
18-27	54	36
28-40	96	64
<b>Total</b>	150	100

(Source: Primary data from survey), (Table compiled by author)

Among the total 150 respondents 54 belonged to the generation Z and the remaining 96 are from the generation Y.

**Education profile of respondents**

Education	Frequency	Percentage
Graduation	114	76
Post-graduation	36	24
<b>Total</b>	150	100

(Source: Primary data from survey), (Table compiled by author)

The study consisted of 114 graduates and 36 post graduate respondents.

**Occupation profile of respondents**

Occupation	Frequency	Percentage
Employment	54	36
Business	18	12
Profession	48	32
Services	30	20
<b>Total</b>	150	100

(Source: Primary data from survey), (Table compiled by author)

The study consisted of 54 employees, 18 businesspersons 48 professionals and 30 service sector personnel.

**Annual income profile of respondents**

Income in rupees	Frequency	Percentage
Below 50000	30	20
50 thousand to 1Lakh	12	8
1 Lakh to 2 Lakh	12	8
2 Lakh to 5 Lakh	30	20
5 Lakh to 10 Lakh	36	24
Above 10 Lakhs	30	20
<b>Total</b>	150	100

(Source: Primary data from survey), (Table compiled by author)

The above table indicates the annual income status of the respondents and majority of respondents are in the first, third, fourth and fifth categories.

**Profile of the nationalised banks subjected to study**

Bank	Frequency	Percentage
SBI	90	60
PNB	36	24
BOB	24	16
<b>Total</b>	150	100

(Source: Primary data from survey), (Table compiled by author)

Among the respondents 90 of them were the customers of SBI followed by 36 with PNB and 24 in BOB respectively.

**Results of the study:-**

Descriptive statistics results for perception on mobile banking:

Statements on perceptions towards mobile banking	Mean	Std. Deviation	Std. Error
Using mobile banking saves my time	4.75	.512	.043
	2.82	.982	.296
	4.61	.750	.061
Perception on banking operations using mobile banking	4.73	.597	.051
	2.91	1.136	.343
	4.60	.803	.066
Perception on user Interface of mobile banking	4.29	.847	.072
	2.45	1.036	.312
	4.16	.984	.080
Perception on network connectivity while doing a transaction using mobile banking	4.12	.671	.057
	3.00	0.000	0.000
	4.03	.709	.058
Perception on cost effectiveness of mobile banking as compared to visiting banks	4.69	.479	.041
	3.18	.603	.182
	4.58	.627	.051
Perception on mobile banking due to its 24 X 7 availability	4.73	.479	.041
	3.27	.647	.195
	4.62	.620	.051
Satisfaction level of data and information security provided by the bank with reference to mobile banking	4.24	.677	.057
	3.09	.302	.091
	4.15	.721	.059
Comfort level of customers while using new technologies like mobile banking	4.56	.526	.045
	3.27	.647	.195
	4.47	.631	.052
Awareness level of customers about all the mobile banking services	4.06	.858	.073
	2.18	.405	.122
	3.92	.966	.079
Usage level of all the mobile banking services	3.68	.965	.082
	2.18	.405	.122

	3.57	1.013	.083
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(Source: Primary data from survey and analysed using SPSS), (Table compiled by author)

Descriptive statistics results for perception on internet banking:

<b>Statements on perceptions towards internet banking</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error</b>
Using internet banking saves my time	4.74	.440	.037
	4.09	.302	.091
	4.69	.463	.038
Perception on banking operations using internet banking	4.45	.724	.061
	3.09	.302	.091
	4.35	.786	.064
Perception on user Interface of internet banking	4.40	.728	.062
	3.18	.405	.122
	4.31	.777	.063
Perception on network connectivity while doing a transaction using internet banking	4.12	.671	.057
	3.00	0.000	0.000
	4.03	.709	.058
Perception on cost effectiveness of internet banking as compared to visiting banks	4.57	.590	.050
	3.09	.302	.091
	4.46	.692	.056
Perception on internet banking because of its 24 X 7 availability	4.68	.673	.057
	2.82	.982	.296
	4.54	.848	.069
Satisfaction level of data and information security provided by the bank with reference to internet banking	4.28	.742	.063
	3.00	0.000	0.000
	4.19	.789	.064
Comfort level of customers while using new technologies like internet banking	4.42	.712	.060
	2.55	.688	.207
	4.29	.862	.070
Awareness level of customers about all the internet banking services	4.09	.959	.081
	2.27	.647	.195
	3.95	1.051	.086
Usage level of all the internet banking services	4.06	1.058	.090
	2.09	.302	.091
	3.92	1.144	.093
	3.57	1.013	.083

(Source: Primary data from survey and analysed using SPSS), (Table compiled by author)

#### Analysis of the study using ANOVA:

Analysis on perception towards mobile banking:

<b>Analysis of perception towards mobile banking</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
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Using mobile banking saves my time	Between Groups	37.970	1	37.970	122.635	.000
	Within Groups	45.823	148	.310		
	Total	83.793	149			
Perception on banking operations using mobile banking	Between Groups	33.940	1	33.940	80.939	.000
	Within Groups	62.060	148	.419		
	Total	96.000	149			
Perception on user Interface of mobile banking	Between Groups	34.526	1	34.526	46.609	.000
	Within Groups	109.634	148	.741		
	Total	144.160	149			
Perception on network connectivity while doing a transaction using mobile banking	Between Groups	12.675	1	12.675	30.180	.000
	Within Groups	62.158	148	.420		
	Total	74.833	149			
Perception on cost effectiveness of mobile banking as compared to visiting banks	Between Groups	23.206	1	23.206	97.199	.000
	Within Groups	35.334	148	.239		
	Total	58.540	149			
Perception on mobile banking due to its 24 X 7 availability	Between Groups	21.547	1	21.547	89.092	.000
	Within Groups	35.793	148	.242		
	Total	57.340	149			
Satisfaction level of data and information security provided by the bank with reference to mobile banking	Between Groups	13.399	1	13.399	30.949	.000
	Within Groups	64.075	148	.433		
	Total	77.473	149			
Comfort level of customers while using new technologies like mobile banking	Between Groups	16.921	1	16.921	59.048	.000
	Within Groups	42.412	148	.287		
	Total	59.333	149			
Awareness level of customers about all the mobile banking services	Between Groups	35.864	1	35.864	51.445	.000
	Within Groups	103.176	148	.697		
	Total	139.040	149			
Usage level of all the mobile banking services	Between Groups	22.765	1	22.765	25.904	.000
	Within Groups	130.068	148	.879		
	Total	152.833	149			

(Source: Primary data from survey and analysed using SPSS), (Table compiled by author)

Analysis on perception towards internet banking:

<b>Analysis of perception towards internet banking</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Using internet banking saves my time	Between Groups	4.308	1	4.308	23.113	.000
	Within Groups	27.585	148	.186		
	Total	31.893	149			
Perception on banking operations using internet banking	Between Groups	18.719	1	18.719	37.819	.000
	Within Groups	73.254	148	.495		
	Total	91.973	149			
Perception on user Interface of internet banking	Between Groups	15.020	1	15.020	29.689	.000
	Within Groups	74.874	148	.506		
	Total	89.893	149			
Perception on network connectivity while doing a transaction using internet banking	Between Groups	12.675	1	12.675	30.180	.000
	Within Groups	62.158	148	.420		
	Total	74.833	149			
Perception on cost effectiveness of internet banking as compared to visiting banks	Between Groups	22.250	1	22.250	67.191	.000
	Within Groups	49.010	148	.331		
	Total	71.260	149			
Perception on internet banking because of its 24 X 7 availability	Between Groups	35.192	1	35.192	72.271	.000
	Within Groups	72.068	148	.487		
	Total	107.260	149			
Satisfaction level of data and information security provided by the bank with reference to internet banking	Between Groups	16.716	1	16.716	32.527	.000
	Within Groups	76.058	148	.514		
	Total	92.773	149			
Comfort level of customers while using new technologies like internet banking	Between Groups	35.989	1	35.989	71.319	.000
	Within Groups	74.684	148	.505		
	Total	110.673	149			
Awareness level of customers about all the internet banking services	Between Groups	33.527	1	33.527	37.836	.000
	Within Groups	131.146	148	.886		
	Total	164.673	149			
Usage level of all the internet banking services	Between Groups	39.714	1	39.714	37.840	.000
	Within Groups	155.326	148	1.050		
	Total	195.040	149			

	Total	195.040	149			
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(Source: Primary data from survey and analysed using SPSS), (Table compiled by author)

### Findings:

The study has thrown light on some of the following aspects of online banking:

1. There is a significant difference between the banking service usage by generation Y and generation Z customers in nationalised banks.
2. Both the generations perceive that usage of online banking reduces time.
3. Conducting online banking through mobile banking is much easier when compared to internet banking conducted through computers for both generations.
4. User interface in mobile banking is highly significant when compared to internet banking due to easy availability of smart phones rather than computers or laptops which was accepted by both the generations.
5. Both the generations have the same opinion about the network issues on banking through mobile and internet banking.
6. Both generation Y and Z opined that online banking is cost effective when compared to personally visiting the banks.
7. Mobile banking is the most preferred way banking when compare to internet banking due to anytime and anywhere accessibility.
8. Both generations agree that the data and information security provided by mobile banking is much safer than internet banking.
9. Both the generation are much more comfortable using new technologies in mobile banking rather than internet banking.
10. Generation Y customers are much more tech savvy than generation Z customers and prefer to explore new developments both in mobile and internet banking.

### Suggestions:-

Based on the study conducted on online banking perception the following suggestions have been made:

1. Banks have to make efforts in creating awareness about benefits of using online banking for customers.
2. Special offers like cash back, loyalty points and other discounts can be offered to customers to promote loyalty and satisfaction.
3. Effective redressal mechanism have to be installed to hear grievances of customers and timely solving of problems associated with online banking.
4. Online banking soft wares have to be regularly updated and the same have to be brought to the notice of customers and employees.
5. Efforts have to be made in reducing risks involved in banking and create awareness about safe banking habits among all generations of customers.
6. The banks can also conduct free demo sessions on safe banking practices and also host informative videos and posters about online banking.
7. Information about new developments in banking have to be informed through SMSs, mails and WhatsApp chats.
8. Installation of chatbots can also be considered along with IVRS methods so that it will be more attractive for younger generation.
9. Bank employees also have to be motivated to encourage customers in creating awareness about the possible benefits of online banking.
10. Phishing, mobile frauds and cybercrimes are on rise today, therefore a robust and safe online banking system needs to be put into place to build confidence in banking customers.

### Directions for further research:

This study covers perceptions of online banking services given by nationalised banks in our country and can be extended to the private banking sector as well. Indian private sector banking is equally competitive with nationalised banks, and a study on customer perception in these banks will give a better picture of the status of online banking in India in general and in the city of Bangalore in particular.

### Conclusion:-

According to (World bank, 2020) report there are an estimated 14.7 bank branches in India for every 100,000

adults providing this population with an efficient banking system is indeed a challenge. The Indian banking system is a confluence of both public and private banking companies which have contributed to the development of the country and its citizens. This can be further improved and maintained by bringing in new technologies like artificial intelligence, branchless banking, neo banking etc. Further banks also need to create awareness about safe banking practices among customers so that they can conduct their banking activities without fear.

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