

## **BIBLIOGRAPHY**

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## APPENDICES

### APPENDIX - I

#### Questionnaire

##### I Personal Profile

1. Age
  - a. 25-35 years
  - b. 36-50 years
  - c. Above 50 years
2. Gender
  - a. Male
  - b. Female
3. Education
  - a. Under Graduate
  - b. Post Graduate
  - c. Diploma
4. Monthly income
  - a. Below 25000
  - b. 25000-75000
  - c. Above 75000
5. Marital status
  - a. Married
  - b. Unmarried
6. Designation
  - a. Entry Level
  - b. Middle Level
  - c. Managerial Level

##### II Banking practices of the respondents:

7. Name of your Bank:
  - a. HDFC
  - b. ICICI
  - c. AXIS Bank
  - d. IndusInd Bank
  - e. YES Bank
  - f. Kotak Mahindra
8. Type of account:
  - a. Savings a/c
  - b. Current a/c
9. Which mode of e-banking services you are using?
  - a. Mobile banking
  - b. Internet banking
  - c. Debit cards
  - d. Credit card
  - e. Others
10. Year of experience in the Bank:
  - a. Less than 2year
  - b. 2-5 years
  - c. More than 5 years
11. Which of the following e- services you are using
  - a. Fund transfer
  - b. Utility bill payment
  - c. Investment
  - d. Online shopping

- e. Account summary                       f. Loan repayment
- g. Credit card bill payment                       h. Online request
- i. Forex services                       g. Others

12. What is the reason for using bank's e- services (Please rank the following)

	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
Low service charge					
Safety					
Save time					
Curiosity					
Easy handling of money					
Convenience					

**III. Give your opinion about E-Service Quality of Bank as per your EXPECTATION  
(Tick to the appropriate statements)**

Statements of E-S-QUAL Dimensions		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree
<b>Ease of Use</b>							
EU1	e-Banking services are comfortable to use						
EU2	Clear user instructions available						
EU3	Easy service request processing						
EU4	Easy website navigation						
EU5	User friendly website						
EU6	Good visual appeal and dynamic website						
<b>Efficiency</b>							
EF1	24*7 accessibility						
EF2	Uninterrupted access to e- services						
EF3	Perfect site organization						
EF4	Website enables speedy transaction						
EF5	Efficient queue management system						
EF6	Prompt website interface						
EF7	Complete task with minimal effort						
<b>Safety</b>							
SF1	Ensured security to personal information						
SF2	Ensured e-service privacy policy						

SF3	Website is secure for providing credential information						
SF4	Safe to do e-banking services						
<b>Reliability</b>							
RL1	Website information fit to task						
RL2	Ensured seamless transaction processing						
RL3	Website information on benefits and offers						
RL4	Highly confident in the e-banking services						
RL5	Problem-free links and easy page downloads						
RL6	Updated technology for e-banking services						
RL7	Rely on website functioning						
<b>Responsiveness</b>							
RP1	Willing to help customers						
RP2	Prompt responses to requests by e-mail or other means						
RP3	Website facilitates online interaction						
RP4	Feedback and complaint management system						
RP5	Preferential treatment to customers						
RP6	Availability of contact details of banks						
<b>Interoperability</b>							
INT1	Bank's e-services be accessed from the third-party digital platforms						
INT2	Third-party e-services are accessed from bank's digital platforms						
INT3	Third party transaction through bank's digital platform is easy and faster						

Statements on Bank Service Quality Dimensions		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree
<b>Service charges</b>							
SC1	Reasonable charges on e-banking services						
SC2	Transparent and understandable disclosure of service charges						
SC3	Banks' service charges are competitive compared to other banks						
<b>Service Portfolio</b>							
SP1	Varied financial services through e-banking						

SP2	Multiple services available on bank's digital platform						
SP3	Consistently updates with newer e-services						
<b>Personalised Services</b>							
PC1	Facilitates live assistance						
PC2	Reward system and Referral point						
PC3	Proper Feedback system						

**IV. Give your opinion about bank's E-Service Quality as per your EXPERIENCE  
(Tick to the appropriate statements)**

Statements of E-S-QUAL Dimensions		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree
<b>Ease of Use</b>							
EU1	e-Banking services are comfortable to use						
EU2	Clear user instructions available						
EU3	Easy service request processing						
EU4	Easy website navigation						
EU5	User friendly website						
EU6	Good visual appeal and innovative website						
<b>Efficiency</b>							
EF1	24*7 accessibility						
EF2	Uninterrupted access to e- services						
EF3	Perfect site organization						
EF4	Website enables speedy transaction						
EF5	Efficient queue management system						
EF6	Prompt website interface						
EF7	Complete task with minimal effort						
<b>Safety</b>							
SF1	Ensured security to personal information						
SF2	Ensured e-service privacy policy						
SF3	Website is secure for providing credential information						
SF4	Safe to do e-banking services						

<b>Reliability</b>							
RL1	Website information fit to task						
RL2	Ensured seamless transaction processing						
RL3	Website information on benefits and offers						
RL4	Highly confident in the e-banking services						
RL5	Problem-free links and easy page downloads						
RL6	Updated technology for e-services						
RL7	Rely on website functioning						
<b>Responsiveness</b>							
RP1	Willing to help customers						
RP2	Prompt responses to requests by e-mail or other means						
RP3	Website facilitates online interaction						
RP4	Feedback and complaint management system						
RP5	Preferential treatment to customers						
RP6	Availability of contact details of banks						
<b>Interoperability</b>							
INT1	Bank's e-services be accessed from the third-party digital platforms.						
INT2	Third-party e-services are accessed from bank's digital platforms						
INT3	Third party transaction through bank's digital platform is easy and faster						

<b>Statements on Bank Service Quality Dimensions</b>		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree
<b>Service charges</b>							
SC1	Reasonable charges on banking services						
SC2	Transparent and understandable disclosure of service charges						
SC3	Banks' service charges are competitive compared to other banks						
<b>Service Portfolio</b>							
SP1	Varied financial services through e-banking						

SP2	Multiple services available on bank's digital platform						
SP3	Consistently updates with newer e-services						
<b>Personalised Services</b>							
PC1	Facilitates live assistance						
PC2	Reward system and Referral point						
PC3	Proper Feedback system						

**V. Give your opinion about trust, satisfaction and continued usage intention on bank's E-Service (Tick to the appropriate statements)**

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<b>Customer Trust</b>						
TR1	I trust the banks' e-services					
TR2	I feel secure using banks e-services					
TR3	I trust the bank for safety of savings					
<b>E-service Satisfaction</b>						
ES1	Satisfied with the types of e-services offered by the bank					
ES2	Satisfied with the quality of e-services provided by the bank					
ES3	Satisfied with bank's customer relationships management					
ES4	Overall, satisfied with e-service usage.					
<b>Continued Usage Intention</b>						
CUI1	Use e-services on regular basis in the future					
CUI2	Strongly recommend others to use e-services					
CUI3	Intend to stay with the bank as the bank provide quality services					
CUI4	Positive experience on e-service usage and intent to stay					

## APPENDIX – II

## Approval of Institutional Human Ethical committee

## INSTITUTIONAL HUMAN ETHICS COMMITTEE

*Avinashilingam*

Institute for Home Science and Higher Education for Women  
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3  
of UGC Act 1956) Re-accredited with 'A++' Grade by  
NAAC. Recognised by UGC Under Section 12 B  
Coimbatore-641 043, Tamil Nadu, India

**Chairman**

Dr.Sudha Ramalingam  
Director-Research & Innovation,  
Professor-Community Medicine,  
PSG Institute of Medical Sciences  
& Research, Coimbatore

**Member Secretary**

Dr.S.Uma Mageshwari  
Professor and Head,  
Department of Food Service  
Management & Dietetics

**Members**

Mr.K.Arunmoli (Legal Expert)  
Dr.Subhashini K. Sripathi  
Dr.A.Saraswathy (Medical Officer)  
Ms.D.Kavitha  
Dr.A.R.Sudamani Ramasamy  
Dr.G.Victoria Naomi  
Dr. Judith Justin  
Dr.Anitha Subash

08<sup>th</sup> July 2022

To  
Ms.Fathimah Thasleena.K  
Department of Commerce  
Avinashilingam Institute for Home Science and  
Higher Education for Women  
Coimbatore – 641 043

Dear Fathimah Thasleena.K,

Ref: Your proposal No. IHEC/21-22/COM-01 entitled  
“Effect of E-Service Quality on Customer Retention with Reference  
to New Generation Banks in Kerala” resubmitted for approval to  
IHEC on 06.05.2022.

The Institutional Human Ethics Committee of our University  
hereby grants approval to your research proposal No. IHEC/21-22/  
COM-01 entitled “Effect of E-Service Quality on Customer  
Retention with Reference to New Generation Banks in Kerala”  
resubmitted by you. The Approval number for the same is  
AUW/IHEC/COM -21-22/XPD-01.

We wish you all the best in your research endeavours.

Regards,

*S. Uma Mageshwari*  
Dr.S.Uma Mageshwari  
Member Secretary



**Avinashilingam Institute for Home Science and Higher Education for Women**

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD  
Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC  
Coimbatore - 641 043, Tamil Nadu, India

**Appendix L2**

**(Item No 5 of  
Check List) Details of Research  
Publications**

*Verified mam*

S.No	Article	Journal	Other Details Vol/No/Page No/ Year	Published in UGC- CARE / Scopus Indexed/ Web of Science
1	Unveiling The Blue Print for Stellar Banking Experience! SEAUPERF Analysis and customer Effort score Mapping	Journal of Services Research	24(2) October 2024 - March 2025	UGC CARE
2	Generational Divide in Digital Banking: Comparing Experience and Expectation Across Generations X, Y and Z.	Indian Journal of Information Sources and Services	June 2025	Scopus Indexed (Accepted)

\*Proof of list of Journals from Internet to be attached along with copies of reprints.

Scholar : *[Signature]*

Supervisor : *[Signature]*  
21/5/25

Dr. P. SATHI

Checked By: *[Signature]*  
21/5/2025  
HoD/Dean of Respective School

The scholar Miss. Fathimath Thasleena, K (19PH COPCOH) has published her research articles in the following journals:

1. Journal of Services Research - indexed in UGC Care Grp. I from June 2019 to present,
2. Indian Journal of Information Sources and Services - indexed in Scopus from 2019 to present.

This may be considered.

J. Jh. 10/11  
21.05.25  
Asst. Librarian.







the effect created by customer to other customer service efforts that perceived as quality of service (Baskerville, 2012). Customer satisfaction is defined as service quality (Parasuraman et al., 1985) and there are a direct and significant relationship between the two variables (Yu, 2010). Service quality has been considered as affecting more customer compared to public funds (Baskerville, 2012). Service quality supports public funds in providing superior service to customer in service aspects, with resulting satisfaction through the product quality (Parasuraman, 2012). The researchers prefer private sector funds due to their emphasis on building strong relationships with customers and their better effectiveness compared to public funds (Baskerville et al., 2012).

Customer experience is the emotional and cognitive evaluation of customer interaction with the company, both direct and indirect, that is associated with providing services (Santibañez, 2012). Customer experience, seen as an act, and the service quality provided are all aspects of the banking experience. Customers assess the quality of services they receive by integrating perceptions of service quality together (customer customer experience) that is based on service, service supplied, and equity. Customer satisfaction survey are essential tool for measuring customer experience (customer satisfaction) and the other service quality is primarily perceived. Customers that want to enhance the customer experience must increase customer satisfaction.

Customer effectiveness is one way to assess customer satisfaction (Santibañez, 2012) because they represent a set of products or services of banks and products are seen affect the customer journey is affected. The study intends to perform an empirical analysis of perceived service quality service efforts they contribute through their actions.

The present relationship between service quality, as measured by customer and business effectiveness (Santibañez, 2012) and customer satisfaction requires further research attention, despite the abundance of studies on the subject. The current study fills the knowledge gap by determining the aspects of customer effort satisfaction quality within the framework of particular private banks. The value for a more thorough understanding of customer satisfaction and perceptions.

### 2.1. Objectives of the study

This study objectives are further study to assess the extent of effort required by customer to engage with the bank and the impact of the effort on their overall

overall satisfaction. Finally, to find out how students perceive the level of career preparedness, a series of pretests and pilot tests were conducted.

### 10. Research Methodology

An exploratory quantitative research design was used in this study. The focus of research is statistical in nature in the sense of Cohen, Manaster, and McWhorter (1998): "Statistical design is concerned with the choice of the sample and the choice of the tests of those tests involves the population of the study. The researcher conducts the tests based on prior or a priori knowledge of the nature of the study, and to test differences, the researcher often is willing to provide time and perhaps the interview were selected as the sample respondents. The final sample consisted with National Aeronautics and Space Administration (NASA) employees (50%), military (25%), and business (25%) employees (2000) total. The researchers also conducted a pilot sample consisting of 100.

A structured interview schedule was prepared with items on: teaching, learning, business, management, quality, and satisfaction. Incorporating the past item with the data with regard to age, sex, income and education level of the interviewees are also included. The sampling instrument was pre-tested for validity before applying in the study. In addition to the semi-structured interview schedule, a series of pretests and pilot tests were used to determine the reliability of the instrument. The instrument was tested through the use of various career measures. It is achieved by adding partial responses with the total responses and through re-administering the test to find the percentage score. The Cronbach alpha was 0.78 which denoting reliability of the instrument.

### 11. Data Collection

#### 11.1. Demographic Features of the Respondents

The data were gathered from 100 respondents in terms of distribution of demographic variables are given in Table 1. Regarding the age distribution, 60% respondents were categorized the category of 20-30 years old, approximately 15% in the 31-40 age category, 15% in the 41-50 age category, 10% of the respondents were the age category of 51-60 years, while 10% were above 60 years old. There were 60% male respondents and 40% female respondents. Regarding the respondents' occupations, the majority (60%) were employed while 40% were engaged in business activities. Moreover, 60% of the sample followed by students at 20% and retired at 20%. Regarding monthly income, the highest proportion (60%) fall into the below \$1000 category, while 10% had a monthly



consistently demonstrate according to the most recent of audits for the frequency, thoroughness and a standard deviation of 0.0000.

With a mean score of 0.0000 and a standard deviation of 0.0000, reliability shows that consistent future audits can follow on this process with a high degree of dependability.

The assessment for the respondents demonstrates a 0.00 with a standard deviation of 0.0000. This implies that responses are only consistent selected with the same responses that imply consistent their requirements. Auditors score a high degree of trust, confidence, and accuracy that have cost, which reflects in conducting future responses, according to literature, which has a mean score of 0.0000 and a standard deviation of 0.0000. The company respondent has a mean score of 0.00 and a standard deviation of 0.0000.

The suggests that auditors provide a comprehensive of perceived attitudes and how their behavior changes, including costs for improvement in the area. These descriptive statistics provide a better understanding of the dimensions of service quality perceived among the respondents. This finding will be further explored and compared to the subsequent section in order to gain a better understanding of their attitudes and proposed areas where better future developments/development.

#### **Table 8. Statistical perspective towards quality of external audits**

Dimension	Mean	SD
Reliability	0.0000	0.0000
Accuracy	0.0000	0.0000
Thoroughness	0.00	0.0000
Frequency	0.0000	0.0000
Timeliness	0.0000	0.0000

#### **Table 9. Respondent data**

#### **3.2. Factors influencing service quality of external audits**

The statistical regression model consists of 10 factors of service factors that identify the underlying factors influencing service quality and presented in table number 10.

the total value of the relationship with equity and financial investments. The quality of the service is not necessarily significant between the quality and the financial. The communication, especially economic and technical services are important.

Factor 1, called "Business Reliability," represents issues associated with customer attitudes, customer service level, understanding specific needs of customer, safety, responsibility, customer service and the capacity to meet customer specific needs. The factor highlights the importance of personalization and communication in enhancing service quality. These dimensions have high factor loadings, following that is the overall perception of service quality. 57% percentage of the influence is caused by Business Reliability.

Factor 2, called "Flexibility," represents customer satisfaction in the bank service process, staff being ready to solve problems consistently, maintaining correct attitude, and consistently engaged. These dimensions reflect the customer' perception of the bank' ability to enhance services and influence its perceived service quality.

Factor 3, called "Flexibility," represents customer interest in the physical environment and facilities provided by the bank. It includes customer service, pricing policy, access, waiting and service queue management systems, and operations of staff and the facility. In the overall perception of service quality, 18% percentage of the influence is caused by convenience and flexibility dimensions influence quality.

Factor 4, called "Responsiveness," refers to customer relationship communication, information exchange between branch and customer. It encompasses good response, answering phone calls promptly, referring when services will be performed, and ensuring understandable communication. These dimensions highlight the importance of effective communication in service quality with 17% percentage influence on service quality in factor Responsiveness.

These results highlight the four factors contributing major influence on service quality. The identified factors provide valuable insights for bank management to practice more the improvement and enhance overall service quality based on customer expectations and preferences.





These calculations result in the three ratios. By comparing the 1998 ratios calculated with each firm's 1997 ratios, each management can identify areas of strength and areas that require improvement. An extreme ratio, either positive or negative, indicates unusual conditions. Increasing current liabilities and decreasing working capital may result from allowing the accounts receivable to grow, thereby lowering the balance sheet's liquidity component.

**Table 16. Measurement of Current Liabilities as a Share of Total Assets**

Firm	Current Liabilities	Total Assets			
		1997	1998	1999	2000
101	100000000	100000000	100000000	100000000	100000000
102	100000000	100000000	100000000	100000000	100000000
103	100000000	100000000	100000000	100000000	100000000
104	100000000	100000000	100000000	100000000	100000000
105	100000000	100000000	100000000	100000000	100000000
106	100000000	100000000	100000000	100000000	100000000
107	100000000	100000000	100000000	100000000	100000000
108	100000000	100000000	100000000	100000000	100000000
109	100000000	100000000	100000000	100000000	100000000
110	100000000	100000000	100000000	100000000	100000000
111	100000000	100000000	100000000	100000000	100000000
112	100000000	100000000	100000000	100000000	100000000
113	100000000	100000000	100000000	100000000	100000000
114	100000000	100000000	100000000	100000000	100000000
115	100000000	100000000	100000000	100000000	100000000
116	100000000	100000000	100000000	100000000	100000000
117	100000000	100000000	100000000	100000000	100000000
118	100000000	100000000	100000000	100000000	100000000
119	100000000	100000000	100000000	100000000	100000000
120	100000000	100000000	100000000	100000000	100000000
121	100000000	100000000	100000000	100000000	100000000
122	100000000	100000000	100000000	100000000	100000000
123	100000000	100000000	100000000	100000000	100000000
124	100000000	100000000	100000000	100000000	100000000
125	100000000	100000000	100000000	100000000	100000000
126	100000000	100000000	100000000	100000000	100000000
127	100000000	100000000	100000000	100000000	100000000
128	100000000	100000000	100000000	100000000	100000000
129	100000000	100000000	100000000	100000000	100000000
130	100000000	100000000	100000000	100000000	100000000
131	100000000	100000000	100000000	100000000	100000000
132	100000000	100000000	100000000	100000000	100000000
133	100000000	100000000	100000000	100000000	100000000
134	100000000	100000000	100000000	100000000	100000000
135	100000000	100000000	100000000	100000000	100000000
136	100000000	100000000	100000000	100000000	100000000
137	100000000	100000000	100000000	100000000	100000000
138	100000000	100000000	100000000	100000000	100000000
139	100000000	100000000	100000000	100000000	100000000
140	100000000	100000000	100000000	100000000	100000000
141	100000000	100000000	100000000	100000000	100000000
142	100000000	100000000	100000000	100000000	100000000
143	100000000	100000000	100000000	100000000	100000000
144	100000000	100000000	100000000	100000000	100000000
145	100000000	100000000	100000000	100000000	100000000
146	100000000	100000000	100000000	100000000	100000000
147	100000000	100000000	100000000	100000000	100000000
148	100000000	100000000	100000000	100000000	100000000
149	100000000	100000000	100000000	100000000	100000000
150	100000000	100000000	100000000	100000000	100000000
151	100000000	100000000	100000000	100000000	100000000
152	100000000	100000000	100000000	100000000	100000000
153	100000000	100000000	100000000	100000000	100000000
154	100000000	100000000	100000000	100000000	100000000
155	100000000	100000000	100000000	100000000	100000000
156	100000000	100000000	100000000	100000000	100000000
157	100000000	100000000	100000000	100000000	100000000
158	100000000	100000000	100000000	100000000	100000000
159	100000000	100000000	100000000	100000000	100000000
160	100000000	100000000	100000000	100000000	100000000
161	100000000	100000000	100000000	100000000	100000000
162	100000000	100000000	100000000	100000000	100000000
163	100000000	100000000	100000000	100000000	100000000
164	100000000	100000000	100000000	100000000	100000000
165	100000000	100000000	100000000	100000000	100000000
166	100000000	100000000	100000000	100000000	100000000
167	100000000	100000000	100000000	100000000	100000000
168	100000000	100000000	100000000	100000000	100000000
169	100000000	100000000	100000000	100000000	100000000
170	100000000	100000000	100000000	100000000	100000000
171	100000000	100000000	100000000	100000000	100000000
172	100000000	100000000	100000000	100000000	100000000
173	100000000	100000000	100000000	100000000	100000000
174	100000000	100000000	100000000	100000000	100000000
175	100000000	100000000	100000000	100000000	100000000
176	100000000	100000000	100000000	100000000	100000000
177	100000000	100000000	100000000	100000000	100000000
178	100000000	100000000	100000000	100000000	100000000
179	100000000	100000000	100000000	100000000	100000000
180	100000000	100000000	100000000	100000000	100000000
181	100000000	100000000	100000000	100000000	100000000
182	100000000	100000000	100000000	100000000	100000000
183	100000000	100000000	100000000	100000000	100000000
184	100000000	100000000	100000000	100000000	100000000
185	100000000	100000000	100000000	100000000	100000000
186	100000000	100000000	100000000	100000000	100000000
187	100000000	100000000	100000000	100000000	100000000
188	100000000	100000000	100000000	100000000	100000000
189	100000000	100000000	100000000	100000000	100000000
190	100000000	100000000	100000000	100000000	100000000
191	100000000	100000000	100000000	100000000	100000000
192	100000000	100000000	100000000	100000000	100000000
193	100000000	100000000	100000000	100000000	100000000
194	100000000	100000000	100000000	100000000	100000000
195	100000000	100000000	100000000	100000000	100000000
196	100000000	100000000	100000000	100000000	100000000
197	100000000	100000000	100000000	100000000	100000000
198	100000000	100000000	100000000	100000000	100000000
199	100000000	100000000	100000000	100000000	100000000
200	100000000	100000000	100000000	100000000	100000000

Source: Adapted from Table 15.

**Figure 1** Mapping of business effectiveness



Figure 1 provides insight into the effects put in by business to meet the various objectives, and indicates the results relative to the percentage of business effect from (only) internal factors. Moreover, the findings reveal that various dimensions of business quality, namely high efficiency, affecting a higher degree of customer satisfaction and retention, the increased loyalty of the banks' customer portfolio, which has a strong focus on retaining their customers that is key to success in the bank's process. The majority of in-branch banking usage, information about service performance, social banking, convenient banking hours, and overall customer satisfaction average score of 78%, demonstrating a high level of customer satisfaction of all the banks' branches. Furthermore, a mixture of traditional equipment and new equipment of staff are better in 2013 than in 2012, based on compared to other bank brands, while score of customer satisfaction management is high for the bank's head and city level, all these indicating a strong position of customer satisfaction. In the other hand, some dimensions further indicates the scores suggesting the need for improvement in service customer satisfaction. Such banking process, staff readiness to solve problems immediately, quick response and service efficiency, all principally affect within the category. These dimensions allow collected for improvement to meet customer expectations more effectively. Indeed, the analysis reveals a relative success

regarding the physical features affecting the results as it concerns a clear difference of less than 10 percent. The evidence that customers are dissatisfied with the available physical features, emphasizing the importance of addressing the needs without financial customer satisfaction.

Second, the analysis of the data in [Figure 1](#) highlights the strong evidence for satisfaction in the group of women (mostly) in the hardware. By comparing the evidence that covers both the survey items and customer satisfaction and customer customer satisfaction in these areas. Additionally, the differences will indicate areas that will be opportunities for the hardware manufacturer necessary improvements, while the poor performance in the physical features require immediate attention. By addressing these problems, firms may strengthen their relationships with their most customers. The overall customer experience.

**3.2. Satisfaction of physical features of product** In the survey domain, of several items have been investigated. The groups between the customer effect have (90% overall). These groups include items of physical space, items between 10-15 and 16-20 for the groups provide insight into the level of customer effect on services and highlights the importance.

The analysis of [Table 1](#) shows that a majority of the variables fall into the category of items above 15. This indicates an improvement of satisfaction in these dimensions, which items are related to items of customer delight. These dimensions include physical features (ergonomics), and also customer needs, customer support, a fast response of employees, and an 80% rating. Additionally, however, items in 10-15, such as customer needs, clearly indicating a customer experience, which represents the best case, the dimensions of responsiveness, however, accordingly, identified by factors the customer experience that the best rating. Respondents indicating customer experience and customer satisfaction, and some items above 15. The last three items in these 10-15 dimensions is related to physical customer satisfaction, as they were a strong predictor of customer loyalty and repeat business.

Overall, there are variables that follow the category of items between 10-15. This suggests that there is less the improvement in these dimensions to meet customer expectations and achieve satisfaction. These dimensions include customer needs in usability, such as fast loading process and staff





institutions, and the ease of conducting business with private sector banks in their strategies for supporting various quality and efficiency related objectives.

The younger age group of respondents predominantly use the services of private sector banks. The banks are expected to be able towards the changing requirements of the young generation. The views of respondents revealed and revealed that selected major factors that measure cost-effectiveness of the bank were well perceived by the customer, whereby the selected objectives to customer's ability to meet specific needs of customers are to be perceived as significant experiences of bank customer. The reliability dimension reported the objective of the bank by improving the capacity of the bank staff to handle customer's queries and issues. However, all of them are. The satisfaction survey generally in the bank would be perceived with the proper facilities, services and the overall features should provide the information about all objectives to customer. A well defined structure, exchange network must be created between bank and customer which would demonstrate a comprehensive understanding of the customer.

The customer which were in majority, however suggest that the customer are highly focusing on experiencing the location of the bank, friendly customer atmosphere with the excellent appearance of staff and the facilities. The reliability of the bank could be strengthened by the bank staff attending to the customer queries timely and meeting their commitment to customer. The customer appreciating the bank's use of social media services and digitalized profile. The request banks to provide detailed attention, if any required by the customer. Their capacity towards customer. The respondents however were satisfied that bank's request need to characterize the choice of good and prompt response to the customer queries, answering queries with well covering the time required to perform duty.

Ultimately, the bank must retain the customer through the experience they provide and the returns they offered to keep the customer engaged and satisfied by providing customer-centric strategies. The bank would improve the quality of its total services to meet and exceed their expectations in today's customer-facing market. Private banks are expected to be more customer-centric, customer loyalty and satisfaction growth by incorporating and adhering to the demand and preferences of the customer.



Sharma, S. S., & Gupta, N. S. (2000). Measurement methodology: a re-examination and proposed standard. *International Journal of HRM*.

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# Generational Divide in Digital Banking: Comparing Experience and Expectation across Generations X, Y, and Z

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**Abstract** - Digital banking has become a crucial component of today's financial environment with its ease of use and accessibility. How Generation X, Generation Y, and Generation Z have embraced and changed digital banking is distinct. The demands, tastes, and experiences of these generational groups with digital banking services differ. This study aims to examine digital banking experience and expectations of customers among generations X, Y, and Z in the Malabar region of Kerala, which has a rich and diverse cultural heritage. A comprehensive interview was conducted with digital banking customers, representing a comparable proportion of each generation. The result of the Tukey HSD Post Hoc test indicates that the experience and expectations of Generation X, Y, and Z differ about digital banking. Digital banking is seen as complex by Generation X, but it is preferred for quick transactions by Generation Y, and more personalised care is desired by Generation Z. This study provides banks with a thorough strategic foundation for adapting to changing customer expectations across generations.

**Keyword:** Digital Banking, Customer Experience, Customer Expectation, Customer Perception, Generation X, Y, and Z

## I. INTRODUCTION

Technological advancement has caused tremendous change in the operations of the banks. The use of technology in banks will have a significant effect on the expansion of the economy. Digital banking is one of the greatest innovations in the history of the banking industry (Rasanjani et al., 2023). Digital banking is the delivery of banking services through electronic means. The most recent digital banking products and services are electronic payment services, online investment, branch networking, debit cards, credit cards, mobile applications, and wallets (Blazic et al., 2023). Consumers' expectations for online banking vary based on advancements in technology (Komulainen & Makkonen, 2018). As a result, banks use the most modern, cutting-edge technology to customise services to their clients' changing needs and to deploy more sophisticated technology to offer customised services (Kaur et al., 2021).

Since digital banking is one of the most practical and accessible solutions to banking problems, it can be claimed

that the transition in technology paradigm made it possible for a wide audience, including different generations, to accept it (Shams et al., 2020). More underserved and difficult-to-reach populations now have more affordable, low-risk access to financial services due to the growth of information technology in the financial sector. The Union Government launched the "Digital India" programme in recent years to enable India to become a cashless, digitally enabled economy (Sharma et al., 2018). These advancements in the digital and financial domains are connected by the advent of "Digital Financial Services" in India, which also signifies a vibrant time of innovation for the sector (Thomas et al., 2019). Because of its convenience and novel approaches, digital banking draws clients from traditional banking (Desai & Iyer, 2024). Digital banking provides internet-based services that are time-efficient, easily accessible, and come with low transaction costs (Pavithra, 2021).

## II. REVIEW OF LITERATURE

The review of previous studies is discussed in the headings below.

### *Generation Theory and Digital Banking Usage*

A generation is characterised as a collection of related historical occurrences and events that result in discernible variations between generations (Parry & Urwin, 2011). Generation X, or Xers, are people who were born between 1965 and 1980 in the age range of 40 years to 55 years at the moment (Goessling, 2017). They used internet banking in order to pay bills, check balances, and carry out simple transactions. While Gen X may still prefer in-person banking for more complicated financial transactions, they feel more at ease utilising digital tools for routine banking. (Wey Smola & Sutton, 2002).

Those who were born between 1981 and 1995 and are currently between the ages of 25 years and 39 years make up the Net Gen generation, termed as Generation Y (Seaton & Boyd, 2007). They are accustomed to using mobile banking apps and online platforms for a variety of financial activities,

such as checking accounts, making transfers of money, and monitoring investments. They grew up with the internet and were quick to adopt digital banking solutions and are more likely to use fintech services and apps, like robo-advisors and peer-to-peer payment platforms (Colombini & Colella, 2012).

Generation Z are the people born after 1996 and between 11 and 25 years old (Töröcsik et al., 2014). Generation Z is the first to have lived exclusively in the digital era (Turner, 2015). They are comfortable utilising internet platforms and gadgets and are quite tech-savvy (Kolnhofer et al., 2017). They rely heavily on mobile banking apps for their financial needs, and they anticipate a flawless, user-friendly interface (Agárdi & Alt, 2024). Gen Z is open to investigating new banking technologies, such as cryptocurrencies and decentralised finance (DeFi) platforms. They are more inclined to utilise digital wallets, such as Apple Pay and Google Pay, for payments (Daqar, 2020).

#### *Adoption of Technology in the Developing Region*

The relevance of digital banking in India is increasing due to the Digital India project and the development of digital means and know-how. The goals of digital financial inclusion were successfully attained due to the central government's initiatives, which included the Digital India programme, Direct Benefit Transfer, Retail Banking, PMJBY, Mudra Bank, etc. Interaction, time and effort savings, perceived risk, perceived uncertainty, security and privacy, perceived financial cost, perceived utility, ease of use, credibility, self-efficacy, perceived system quality, experience, and information quality are some of the factors influencing the adoption of digital banking. The digital transformations are particularly beneficial as they allow for easier adaptation, quicker response time, work optimisation, and transparency in all transactions. The elements that affect digital banking transactions are affordability, ease of use, security, and convenience (Shafeer, 2019).

#### *Digital Banking Experience of Customers*

Customer experience is the internal, subjective response that a customer has when they engage with a business, whether directly or indirectly (Meyer & Schwager, 2007). According to Chauhan et al., (2022), the elements that impact the digital banking customer experience are: Mechanic cues, which include website qualities, design, and perceived usability; Humanic clues, which include customer complaint handling; and Functional clues, which include functional quality, convenience, and trust. Convenience is found to be the critical factor influencing the digital banking experience, followed by the nature of employees, customer interaction, core services, speed, servicescape, online service elements, value addition, online aesthetics, and presence of other customers (Windasari et al., 2022). It is discovered that online hedonic elements, customization, and the marketing mix are relatively relevant (Garg et al., 2014). Technology advancements have always placed a stronger emphasis on making consumers' lives easier (Indriasari et al, 2019).

Similar to this, digital banking services have improved the banking user experience by offering hassle-free services, the opportunity to pay through digital banking whenever it's convenient, and the absence of lines. Solutions that are life-compatible and have significant components of trust are being provided by digital banking (Singh & Kumar, 2024).

#### *Digital Banking Expectations of Customers*

Customer expectations are defined as what clients anticipate receiving in exchange for using a certain service (Rahi et. Al., 2023; Franque, 2021). Security, interface, process, and functional expectancy are the key expectations of customers with regard to digital banking (Shams et al., 2020). Customers now expect instantaneous, easily available digital solutions that offer convenience and safety (Kasturi, 2023).

#### *Research Gap*

Numerous researchers examined the elements that influence digital banking (Mbama & Ezepue, 2018; Nguyen et al., 2022); however, only scant studies examined the expectations and experiences of customers across various Generations of customers. This study looks at different generations of customers' digital banking experiences and brings out inherent differences in their experiences and expectations among the customers of representing varied Generations.

### **III. OBJECTIVES OF THE STUDY**

To fill the research gap, the following objectives were framed.

1. To analyse how different generations perceive digital banking acceptance.
2. To identify the key variables affecting their experience with digital banking and
3. To ascertain their expectations of digital banking services.

### **IV. SIGNIFICANCE OF THE STUDY**

The advancements and breakthroughs in digital finance have the potential to change the nation's population and economy. When a citizen uses cutting-edge digital technology or switches from the conventional cash payment method to any other kind of less expensive payment, their socioeconomic status rises. An undiscovered research field is the socio-economic shift that citizens have experienced as an outcome of the growth of digital banking technology (Rastogi, 2018). Therefore, it would seem to be pertinent to evaluate consumers' expectations and experiences with digital banking, particularly across different age groups of customers across generations. The study extended to uncover the experience and expectations on digital banking among the customers representing various Generations.

**V. METHODOLOGY**

The locale of the study, Malabar region, situated in Kerala in the southwest of India, was purposefully chosen as the study's location due to its distinct cultural, historical, and geographical significance. The digital banking users across three generations among these districts constitute the population of the study. A comprehensive interview was carried out with customers of digital banking from various generational backgrounds among the five districts in the Malabar area. A sample of 150 users was chosen, equally distributed throughout the Generations X, Y, and Z. Based on

the emphasis of various statements precisely revealed in interviews, one-way ANOVA and Tukey HSD Post Hoc analysis were used to recognize differences in experience and expectations of digital banking users across three generations.

**VI. RESULTS AND DISCUSSIONS**

*Demographic Profile of the Customers*

The demographic features of the respondents are presented in the table

TABLE I SOCIO-ECONOMIC BACKGROUND OF THE RESPONDENTS

Attributes	Generation X		Generation Y		Generation Z	
	n=50	Percentage	n=50	Percentage	n=50	Percentage
<b>Gender</b>						
Male	42	84	38	76	34	68
Female	8	16	12	24	16	32
<b>Age in years</b>						
20-25	0		0		50	100
26-39			50	100		
40-55	50	100				
<b>Education level</b>						
Diploma	23	46	19	38	17	34
Undergraduate	18	36	20	40	15	30
Postgraduate	9	18	11	22	18	36
<b>Year of Experience in using Digital Banking</b>						
Less than 1 Year	5	10	8	16	9	18
1-3 Years	35	70	22	44	36	72
More than 3 Years	10	20	20	40	5	10
<b>Annual Income (in Rupees)</b>						
Less than 50000	7	14	8	16	11	22
50000-100000	34	68	25	50	24	48
Above 100000	9	18	17	34	15	30

Source: Compiled data

Table I presents the socioeconomic profile of the respondents. Males make up the majority of digital banking customers across all generations. The majority of the within the income bracket of Rs. 50000-100000, the bulk of respondents in Generation X are diploma holders with 1-3 years of experience in digital banking. Regarding Generation Y, the majority of responders are graduates in the revenue range of Rs. 50000–100,000, and have fewer than three years of bank experience. In contrast, most of the respondents in Generation Z are postgraduates with over three years of expertise in digital banking and with an income between Rs. 50000 and Rs. 100000.

*Customer Digital Banking Expectations*

After a thorough analysis of the data and previous studies, the most prevalent qualities such as being ease of use, functionality, security, prompt payment, process and interoperability were identified and highlighted and the customer expectation on these digital banking qualities across three generational group were analyzed through one way ANOVA and presented in table II. For testing the significant difference between each and every pair, a post hoc analysis was carried out, and the results were described in Table III.

TABLE II ANOVA FOR TESTING THE SIGNIFICANT DIFFERENCE OF CUSTOMER EXPECTATIONS TOWARDS DIGITAL BANKING ACROSS GENERATION X, Y AND Z

Factors of customer expectations towards digital banking	Education	Mean	SD	F Value	P Value
Ease of use	Generation X	3.3246	.88685	10.154	<0.001**
	Generation Y	3.4116	.85275		
	Generation Z	3.7140	.83290		
Functionality	Generation X	3.3093	.01814	11.286	<0.001**
	Generation Y	3.4690	.83804		
	Generation Z	3.5960	1.02321		
Security	Generation X	3.4514	1.12034	8.530	<0.001**
	Generation Y	3.2424	.88198		
	Generation Z	3.5762	1.05096		

Prompt Payment	Generation X	3.4053	.83288	8.910	.46 <sup>NS</sup>
	Generation Y	3.2892	.84699		
	Generation Z	3.4983	.86546		
Process	Generation X	3.2153	1.0924	10.239	<0.001**
	Generation Y	3.3156	.71339		
	Generation Z	3.3519	.83643		
Interoperability	Generation X	3.4095	.89169	9.593	.033*
	Generation Y	3.3455	.88058		
	Generation Z	3.5823	.82709		

\*\* Significant at 1% level, \* Significant at 5% level, <sup>NS</sup> Not significant

TABLE III POST HOC ANALYSIS FOR MULTIPLE COMPARISONS OF CUSTOMER EXPECTATIONS TOWARDS DIGITAL BANKING ACROSS GENERATION X, Y AND Z

Factors of customer expectations towards digital banking	Income (I)	Income (J)	Mean difference (I-J)	Std. error	P value
Ease of use	Generation X	Generation Y	-.23703	.12441	<0.001**
		Generation Z	-.34438	.15158	<0.001**
	Generation Y	Generation Z	-.50570*	.23472	.006*
Functionality	Generation X	Generation Y	-.29702	.15341	.683 <sup>NS</sup>
		Generation Z	-.24341*	.27030	.326 <sup>NS</sup>
	Generation Y	Generation Z	-.54374*	.24651	<0.001**
Security	Generation X	Generation Y	.36338	.13447	.134 <sup>NS</sup>
		Generation Z	.61041*	.23430	.028*
	Generation Y	Generation Z	-.23033	.24614	.784 <sup>NS</sup>
Prompt Payment	Generation X	Generation Y	.58470*	.24572	.007*
		Generation Z	.53271*	.23651	<0.001**
	Generation Y	Generation Z	.22033	.23614	.988 <sup>NS</sup>
Process	Generation X	Generation Y	-.38462*	.13416	0.452 <sup>NS</sup>
		Generation Z	-.51563	.17670	<0.001**
	Generation Y	Generation Z	-.50912*	.10777	<0.001**
Interoperability	Generation X	Generation Y	.17412	.20116	.680 <sup>NS</sup>
		Generation Z	-.14375	.13417	.578 <sup>NS</sup>
	Generation Y	Generation Z	-.34017*	.23186	<0.001**

\*\* Significant at 1% level, \* Significant at 5% level, <sup>NS</sup> Not significant

Table II explains the significant difference in customer expectations about the digital banking services, and Table III shows the results of multiple comparisons of each pair of generational groups. The customer expectations regarding ease of using digital banking services differ significantly across all generations, while the younger generations expect a high level of ease of use as compared to older generations. Generation Z is expecting higher functionality as they are digital natives, and like to explore new features.

Regarding the security features of digital banking, Generation Z expects better security compared to Generation X, but not significantly different from Generation Y. The security of digital banking accounts and usage is a major concern for the older generation. Consequently, Generation X expects that a biometric check will be used to secure their financial transactions and trace their financial history. However, Generation Y also anticipates the same level of biometric security.

Generation Z and Y are expecting a prompt payment system from the digital banking platform. The use of technologically advanced financial services could result in cost savings and improved profits. There were expectations that Generation Z did not inform. That being said, there are issues that are shared by various generations. Users from Generation Y

anticipate having a higher threshold for money transfers for financial transactions. A comparable problem was discovered in generation Z. Generation X, on the other hand, anticipates a new feature that will allow them to keep track of critical due and receivable dates.

The results reveal highly significant difference between generation Z and Y with regard to digital banking process and interoperability features. As digital natives, Generation Y anticipates a single solution to address all of their financial issues given the broad scope of technology. They also anticipate having robust mechanisms in place to monitor their financial activities and transactions via digital banking. In contrast the older generation of users is accustomed to straightforward processes for completing financial transactions because they have had less exposure to this kind of technology in the past. Users of the newest generation anticipate using new technical payment methods and being able to transfer money internationally. Evidently, younger consumers are more accustomed to the cutting-edge features that the banks have included. Therefore, the interface of digital banking applications should be more aesthetically pleasing and user-friendly to meet the expectations of Generation Z. On the other hand, elderly consumers favour

an interface that is better suited for a different, more sophisticated user base.

The customers' experience with regard to digital banking was analysed using one-way ANOVA, and a Post Hoc analysis was carried out to test whether a significant difference exists among individual pair groups and presented in Table IV.

*Customer Digital Banking Experiences*

TABLE IV ANOVA FOR TESTING THE SIGNIFICANT DIFFERENCE OF CUSTOMER EXPERIENCE TOWARDS DIGITAL BANKING ACROSS GENERATION X, Y AND Z

Factors of customer experience towards digital banking	Education	Mean	SD	F Value	P Value
Ease of use	Generation X	3.4586	.98785	11.166	<0.001**
	Generation Y	3.3116	.86275		
	Generation Z	3.8130	.84590		
Functionality	Generation X	3.4083	1.01914	10.396	0.506 <sup>NS</sup>
	Generation Y	3.1599	.94804		
	Generation Z	3.6760	1.01821		
Security	Generation X	3.5142	1.12034	7.640	<0.001**
	Generation Y	3.3424	.98178		
	Generation Z	3.8720	1.03096		
Prompt Payment	Generation X	3.4053	.93889	7.800	<0.001**
	Generation Y	3.1925	.84699		
	Generation Z	3.5993	.76746		
Process	Generation X	3.3144	1.00240	11.339	<0.001**
	Generation Y	3.2156	.91639		
	Generation Z	3.4919	.92643		
Interoperability	Generation X	3.3995	.90169	11.293	.043*
	Generation Y	3.2355	.88058		
	Generation Z	3.6423	.91709		

\*\* Significant at 1% level, \* Significant at 5% level, <sup>NS</sup> Not significant

TABLE V POST HOC ANALYSIS FOR MULTIPLE COMPARISON OF CUSTOMER EXPERIENCE TOWARDS DIGITAL BANKING ACROSS GENERATION X, Y AND Z

Factors of customer experience towards digital banking	Income (I)	Income (J)	Mean difference (I-J)	Std. error	P value
Ease of use	Generation X	Generation Y	-.14703	.11441	<0.001**
		Generation Z	-.35438	.15147	<0.001**
	Generation Y	Generation Z	-.47470*	.13572	0.007*
Functionality	Generation X	Generation Y	-.14703	.11441	.793 <sup>NS</sup>
		Generation Z	-.50141*	.16030	.432 <sup>NS</sup>
	Generation Y	Generation Z	-.62174*	.14551	<0.001**
Security	Generation X	Generation Y	.35438	.15147	.181 <sup>NS</sup>
		Generation Z	.50141*	.16030	.023*
	Generation Y	Generation Z	-.12033	.17614	.984 <sup>NS</sup>
Prompt Payment	Generation X	Generation Y	.47470*	.13572	.007*
		Generation Z	.62174*	.14551	<0.001**
	Generation Y	Generation Z	.12033	.17614	.984 <sup>NS</sup>
Process	Generation X	Generation Y	-.68162*	.15516	0.532 <sup>NS</sup>
		Generation Z	-.51233	.18270	<0.001**
	Generation Y	Generation Z	-.49912*	.10677	<0.001**
Interoperability	Generation X	Generation Y	.16402	.11116	.680 <sup>NS</sup>
		Generation Z	-.24275	.14717	.566 <sup>NS</sup>
	Generation Y	Generation Z	-.57017*	.13186	<0.001**

\*\* Significant at 1% level, \* Significant at 5% level, <sup>NS</sup> Not significant

The table V represents the pairwise comparison of mean difference across three generations for six factors of digital banking experience, namely ease of use, functionality, security, prompt payment, process, and interoperability. The result reveals that there is a significant difference between the experience of all the generations with regard to ease of using digital banking services, and Generation Z experiencing better ease of use as compared to the other two generations. Generation Z is experiencing better functionality from digital banking compared to the other group, and there is a

significant difference between Generation X and Y in experiencing of functionality.

All generations are concerned about security features, although older generations are particularly worried about the safety and security of online financial transactions. Hence, more emphasis given to communicate security measures to older groups and maintain transparent and stronger security tools to retain the younger group. Regarding the prompt payment features, the younger generation (Z) appreciated

being able to pay for a lengthy list of bills instantly, anywhere, at any time. In contrast, generation X and Y finds speedy payments to be more convenient because they have already had to wait in queue for lengthy periods of time at banks to pay their utility bills. Generation X and Y experiencing that the bank's digital banking services are interoperable as it is able to transact with other digital platforms. While, interoperability experience of generation Z is statistically highly significant from that of generation X and Y. In short, generation Z tends to evaluate all the digital banking features critically compared to older generations. Hence, the bank should tailor features and interfaces per generational preferences.

## VII. DISCUSSION

The study's overall conclusions show that the expectations and experiences of three different client groups differ. Similarities and contrasts occur in the context of digital banking in the Malabar region due to its diverse culture, which is mostly shaped by generational cohorts. According to the study's findings, ease of use, spontaneous availability and prompt payment were the key variables affecting digital banking experience of respondents. Among these characteristics, ease of use was found to be the one with significant variations between different generational groups.

The primary factors influencing respondents' expectations for digital banking are security, interoperability, workflow, and functional expectancy. Customers' expectations about security and processes demonstrate significant generational variances. While younger generations are not concerned about security, Generations X and Y are increasingly anxious about it. In terms of process expectations, generation X and Y anticipate tighter money transfer regulations, whereas all generations call for incentives for financial transactions. The results of this investigation align with those of previous studies (Shams et al., 2019).

In general, there is a tendency towards more usage and reliance on digital tools across all generations, despite the fact that each has varied degrees of familiarity with digital banking. With the changing demands and tastes of various age groups, fintech and digital banking services will probably continue to evolve. Additionally, in response to these shifting patterns, financial institutions are providing their clients with a wider range of feature-rich, safe, and user-friendly digital banking options.

## VIII. MANAGERIAL IMPLICATIONS OF THE STUDY

The results of this study gave practical significance for service providers to target their operations based on different generational cohorts. According to this research, banks can now clearly see how consumer expectations and experiences affect digital banking's relative success and long-term viability. The research findings provide multiple ideas for managing digital banking according to each generation (X, Y, and Z) and for marketing digital banking. The outcomes of this research could potentially assist bank managers and

banking executives in identifying and meeting the demands of those digital banking clients. Many options for enhancing Malabar's customers' digital banking experiences were made possible by the study's findings. The bank emphasizes different values to different age groups. That is, maintain and build on features to attract tech-savvy groups; tailored communication onboarding and usability improvements for Gen Y; emphasize visible security practices, reassurance mechanisms and fraud prevention communications for Gen X and Y. In short, bank managers that oversee digital banking are able to customise digital banking means to enhance the consumer experience while also taking into account the differences across generations.

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