

# Research Article

# Advances in Machine Learning & Artificial Intelligence

# Analysing the Digital Divide among the Demographics in the State of Telangana with Reference to the Adoption of Digital Banking Services

# Johnpaul M

Department of Management Studies, Central University of Kerala, India

### \*Corresponding Author

Johnpaul M, Department of Management Studies, Central University of Kerala. India.

**Submitted**: 03 Mar 2023; **Accepted**: 29 Mar 2023; **Published**: 10 April 2023

**Citation:** Johnpaul, M. (2023). Analysing the Digital Divide among the Demographics in the State of Telangana with Reference to the Adoption of Digital Banking Services. *Adv Mach Lear Art Inte*, 4(1), 11-22.

#### **Abstract**

The digitalisation of banking services is certainly a positive note that reduces the fatigue of the customers by operating their transactions through their mobile gadgets and other electronic instruments using the internet. However, the research literature demonstrates that Digital initiatives not only has positive connotation but has created a digital divide among the demographics across the communities the studies also show evidence that there exists a huge gap among age groups, gender, income levels and socio-cultural groups in availing digital technologies in financial, especially the banking sector [1,2]. The present study is an attempt, which focuses on understanding the changing and existing phenomenon of banking with special reference to Digitalisation and the adoption process of these new technologies by customers. The study mainly takes the constructs from Technology acceptance Models to test whether there exists any digital divide among the demographics in the study.

Keywords: Digital Banking, Customer Behaviour, TAM Model, Adoption and Digital Technologies

# Introduction

In the last few years, The Banking Industry witnessed a gigantic move towards Digitalization. The Traditional mode of banking activities is experiencing a hyper-personalised digital-first approach. The banking industry also focused on boosting return on equity and bringing down the cost-to-income ratio to keep themselves in competition. The banks have been proving to face new entrances in their business space, like google, amazon and other technology companies entering into financial service. Banks see it as a new threat to their business with these new entrants in the financial transaction space. The changing environment and other external factors have facilitated the new entrants to boost their businesses. This accelerated environment changed customer behaviour and adaptation of new tools and technologies in the banking sector.

One of the surveys (*Deloitte Insights*) in the Banking Sector revealed that customers are reluctant to visit branches and they are inclined to opt out of newer tools to make their transactions, which affects the closer of Banks outlets at an unprecedented scale. The city Bank and JP Morgan are some examples in the banking sector that shut their branches to a reduced flow of customers due to changing behaviours of Customers shifting towards Digital Banking Technologies in the US.

Banking Industry needs to replace many of its Traditional methods of existing customers' transactions and interactions with the Bank by augmenting improved use of Technologies. Banks need to strive its channels to ensure seamless and superior services across the Channels. Traditionally, Banks have had systematised channels with customised workflow and support. This mechanism, over a while, leads to inherently inefficient and broken customer and banking staff dissatisfaction and increased costs. The banks need to re-engineer their platforms to build channels through digital Technologies. Customers expect increased dynamism at the front end. The Existing Banking systems are monolithic and lead to potential delays in implementing the changes in the Banking system. The banks should focus on decoupling their existing monolithic approach to compete with Digital only Banks [3]. Banks should alter their processes through financial re-engineering through technologies.

The existing Data policies in Banking are rigid and have no access to the third party until now banks did not require any data to share with competitors or other service providers. Some banks used their data to improve their product and services. However, the Digitalisation of the Banking sector requires sharing the database with a third party in providing better Digi banking services to its

customers. The same was experienced by the European banks in data sharing with the customer's consent [4].

Technology-driven banking sector requires a "one size fits all" approach by cross-selling and recommending products to the customers on a bigger scale, financial penetration and reduced interactions by using data to provide a personalised customer experience in banking services [5]. Service providers analyse by integrating different kinds of customer data like demographic, transactions, interaction, behaviour and application usage etc. Banks can provide and create a unique experience for their customers. At the same time, customers also expect privacy, security, trust, perceived advantage, perceived use and cared interactions while dealing with digital channels.

Digital infrastructure, the internet of things, digital awareness and a model of digit framework are prerequisites for the Digitalisation of Banking services. The government policy should also facilitate promoting digital services to its customers. The services providers of Digital banking products should address risk management and provide trust and other security-related matters to their customers to adopt Digital Banking Services.

#### **Review of Literature**

The review of the literature focuses on understanding the conceptual framework and the research done in a specific area of the study. The following reviews mainly stick to perceptions of the customers and factors influencing consumer Behaviour in adopting Digital Banking services and other related areas of the study concern.

Bailey AA, et al. conducted a study focusing on factors influencing the use of tap-and-go payment technology by US millennial consumers [6]. The study found that the use of mobile phones has increased tremendously and found that perceived risk, sociocultural influence and System risk may be affecting mobile payment adoptions among US millennial customers.

BezaMucheTeka and David McMillan adopted Structural Equation Model (SEM) to understand the factors influencing the usage of electronic banking in Ethiopia [7]. The results of the study revealed that perceived behavioural control, subjective norms, behavioural intention attitude towards perceived usefulness, perceived ease of use and awareness, and internet connections have a significant positive effect on customers' behaviour in the adoption of e-Banking, while perceived risk has a negative influence.

Vinitha K, et al. analysed three variables like Perceived Benefits, perceived enjoyment and perceived credibility, where the first variable perceived benefit has a positive impact leading to the other two Variables. The perceived benefit has a greater emphasis on study leading to the biggest contribution in influencing the intention of the customers in adopting Digital Payment.

Barkhordari M, et al. emphasised the influence of Internet Technology on enhancing the operational performance of Banking Sector capabilities [8]. The major concern of the internet banking system is the perceived risk and trust of Costumers.

Yadav R, et al. research posits that Subjective Norms, Attitude, Perceived Usefulness and Perceived Behavioural Control have a significant influence on the intention of customers in adopting Internet Banking services among the Youth in India.

Barquin S & Hv V in their survey found that most of the customers in Developed Asia are seeking specific features like Loyalty programmes, and discounts offered through mobile devices while selecting their portfolios using Digital Banking Services.

Ansong A, et al. investigated the perceptions of the customers in Ghana towards the adoption of innovative banking products in their Banks [9]. The study focused on a sample of 288 students for the survey and revealed that convenience, security and Reliability, Flexibility, Ease of Use, and Timesaving have an impact on customers' perception of adopting Innovative products in Banking. The demographic variable like females dominates males in the usage of Innovative products in Ghana.

Vasanthakumari H, et al. examined Customer perception by considering 304 respondents to measure service quality in the Banking Sector [10]. The study mainly focused on analysing five factors namely, "Service", "Tangibles", "Reliability", "Time Duration" and "Growth", considering the demographic variables of customers.

Tat HH, et al. analysed data collected from 204 respondents in Malaysia and found that factors like Trust, perceived ease of use and perceived usefulness have a considerable effect in predicting the intentions of Customers in Malaysia in adapting Internet Banking [11].

Chau PY, et al. investigated the factors influencing the acceptance of Internet Banking in Hong Kong. The study considered 167 respondents and analysed Perceived Usefulness and Perceived Ease of Use towards acceptance of Internet Banking [12].

Tan & Teo have discussed factors Influencing Internet Banking and opined that there required Internet connectivity to connect Customers with banks in delivering digital financial services effectively [13].

# **Objectives of the Study**

The main objectives of the present study are

- 1. To analyse the factors influencing the adoption of Digital Banking services concerning demographic variables.
- 2. To understand the importance of Digital Banking services in this Technology driven Scenario.

#### **Statement of the Problem**

Research about the Banking sector in adopting Digital Banking services is significant but when focused on the Geographic boundaries of Telangana State the study is minimal. The literature and the research about Developed and Developing countries have identified Digital Divide among the customers in usage of Digital Technologies. The studies suggest that there should be a systematic and systematic approach to adopting Digitisation to implement effectively by Cornford J et al, especially in remote rural areas [14]. It is also evident that income, social status and digital infrastructure by Flensburg S & Lai SS, and policies play a vital role in the implementation of Digital Financial Services from the supply point of view. This study is an attempt to understand different factors influencing digital financial services among customers in the State of Telangana.

# Research Methodology

**Source of Data:** The Data is Collected from both Primary and secondary sources. A questionnaire is designed to collect data from respondents directly, using constructs from Technology Acceptance Model (TAM) by considering variables like Relative advantage, perceived ease of use, complexity, trial ability, perceived usefulness, Social norms, Security &trust and awareness to understand perceptions of the respondents towards adoption of Digital Banking services. The Secondary source of data from various research works collected to understand the conceptual framework, identify the research gap, and analyse factors influencing the adoption of digital financial products and services.

**Sample Size:** A sample of 107 respondents is collected randomly through an online survey as well as distributing the questionnaires to the respondents. The data is filtered using imputation analysis to validate missing data.

**Testing of the Questionnaire:** Cronbach Alpha calculated to measure the reliability rating of the questionnaire. The questionnaire has nine broad categories to test factors influencing the adoption of digital banking other than demographic variables, another descriptive variable for the study. To reduce the number of questions computation analysis used by employing the SPSS programme. The details of Cronbach Alpha are as follows.

#### **Reliability Statistics**

Cronbach's Alpha	N of Items
.837	9

The reliability statistics value shows 0.837 for the number of Items 9 under the study. the General Thumb rule is that a Cronbach's Alpha of 0.70 and above is Good and 0.80 is Better, and 0.90 and above is best. The value of the Questionnaire under the Study is 0.837. Hence, the reliability of the questionnaire is valid and considered better.

### **Hypothesis**

- 1. H<sub>01</sub>: There is no significant difference in factors influencing customers' behaviour in adopting Digital banking based on Gender.
- 2.  $H_{02}$ : There is no significant difference in factors influencing customers' adoption of Digital banking based on Age.
- 3.  $H_{03}$ : There is no significant difference in factors influencing perceptions of customers in the adoption of Digital banking based on Education.
- **4. H**<sub>04</sub>: There is no significant difference in factors influencing perceptions of customers in the adoption of Digital banking based on Employment Status
- 5. H<sub>05</sub>: There is no significant difference in factors influencing perceptions of customers in the adoption of Digital banking among the existing users and Non-users of Digital Banking services.

#### **Data Analysis Tools and Techniques**

The valid percentages calculated with the help of descriptive statistics to explain Demographic variables and other related variables collected in the questionnaire. Since the questionnaire employed has Liker Scale in collecting customers' responses, the ANOVA test conducted using the SPSS programme to test factors influencing the adoption of Digital Banking.

#### **Analysis of Data**

The Table 1 of the study explains the Demographic variables considered in the study. The Demographic variables include Gender, Age, Education and Employment Status. 107 responses received by distributing a questionnaire to study the factors influencing the adoption of Digital Banking services.

Table 1: Showing Demographic Variables and their Percentages

Variables		Non-ad	opters	Adopte	ers	Total Valid	
		N	%	N	%	N	%
Gender	Female	22	20.6	29	27.1	51	47.7
	Male	14	13.1	42	39.3	56	52.3
Age	18-27	24	22.4	33	30.8	57	53.3
	28-37	4	3.7	17	15.9	21	19.6
	38-47	4	3.7	14	13.1	18	16.8
	above 48	4	3.7	7	6.5	11	10.3
Education	Degree	12	11.2	8	7.5	20	18.7
	Diploma	3	2.8	2	1.9	5	4.7
	Master	13	12.1	40	37.4	53	51.4
	PHD	7	6.5	21	19.6	28	26.2
<b>Employment Status</b>	Student	25	23.4	33	30.8	58	54.2
	Self Employed	2	1.9	5	4.7	7	6.5
	Salaried	5	4.7	31	29.0	36	33.6
	Retirees	4	3.7	1	0.9	5	4.7
	Others		0.0	1	0.9	1	0.9
	Total	36	33.6	71	66.4	107	100.0

Based on Gender 47.7% are Female and 52.3% are Male respondents given their responses. When comparing data on Age wise composition 53.3% are of 18-27 years, 19.6% are 28-37 years age, 16.8% are 38-47 years age group and 10.3% are above 48 years. Education Qualifications ranging from Degree to PhD considered under the study. The majority of the respondents are

having the educational qualification of a Master with 51.4%, 26.2% with a PhD, 18.7% with Degree and 4.7% are having diploma degree as an educational qualification. When Employment status is considered the student group is predominant with 54.2%, salaried is 33.6%, self-employed are 6.7%, Retirees and others comprise 4.7% and 0.9% respectively.

Table 2: Opinion of the Respondents on Digital Banking as a New System of Delivering Banking Services

	Non-Adopters		Adopter	S	Valid		
	N	%	N	%	Total	%	
Cannot say exactly	8	7	3	3	11	10%	
Desirable	7	7	8	7	15	14%	
Essential	21	20	41	38	62	58%	
Vital		0	19	18	19	18%	
Total	36	34	71	66	107	100%	

**Source:** Primary Data

Table 2 indicates the opinion of the respondents when asked about the importance of the essentiality of new digital banking services that are advancing due to rapid change in Technologies and their application in the Banking Sector. The Majority, 58%, said that the new digital technologies are essential and 18% opined that New

Technologies in Banking System are Vital while 14% expressed as Desirable. In comparison, 10% of the respondents said they could not say exactly. The overall opinion of the respondents supports that new technologies and innovations resulting in Digital Banking services are essential in the present lifestyle.

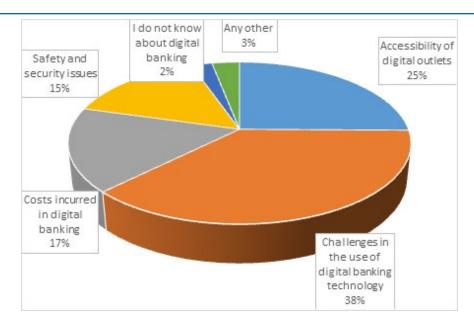


Figure: Reasons and Difficulties Related to Usages of Digital Banking by Both Adopters and Non-Adopters

The Figure of this study explains different reasons the respondents are finding it difficult to use digital banking services. The majority, 37%, have digital banking services that are challenging while using the technologies and 25% of the respondents expressed that there is no accessibility of outlets to avail digital banking services. It is a notable point that there should be enough digital infrastructure facility in both customer's point as well as the agents of service providers. Only 15% have said safety and security issues using digital financial services.

The Table 3 shows the number of products and digital banking services the respondents are availing of. The wide number of respondents ranging to 58% are using at least two products, and 37% are using online banking, ATM, Mobile Banking, and Agency banking 28%, 23% and 6% respectively.

Table 3: Usage of Digital Banking Modes by Respondents like Mobile banking, Online Banking, ATM banking, Agency Banking, Client Contact Centre and Mobile Applications

	N	Valid %
At least One Product	26	24
Two Products	62	58
Three or more Products	19	18
Total	107	100

Source: Primary Data

Modes of Digital Banking used	N	Valid %
Mobile banking	48	23%
Online Banking	78	37%
ATM banking	60	28%
Agency Banking	13	6%
Client Contact Centre	4	2%
<b>Mobile Applications</b>	8	4%
Grand Total	211	100%

Source: Primary Data

Table 4 of the analysis represents the opinion of the respondents seeking provisions to utilise digital-related services. The majority expressed that the cheaper cost of using Digital banking technologies, greater security and safety and free training are the aspects that customers are seeking in adopting Digital Banking

services. If provided the above provisions, the customers will have effective utilisation of Digital Banking services to opt for and can expect growth of Digital services reaching a wide range of customers across the State.

Table 4: Opening of Respondents seeking to Adopt Digital Banking if the Following Provisions made

Provisions Respondents seeking	N	Valid %
a) Free training on the use of digital banking	47	29%
b) Cheaper costs of using digital banking technologies	60	37%
c) Greater security and assurance of the safety of digital banking technologies	55	34%
d) Other	2	1%
Total Responses	164	100%

Source: Primary Data

# **Analysing the Factors Influencing Digital Banking Services Discussion**

The analysis of the study from Table 5.1 to Table 5.5 explains different factors influencing customers' behaviour on the adoption of Digital Banking Services concerning Demographic variables like Gender, Age, Education and Employment status. ANOVA test conducted to analyse factors like Relative Advantage, Compatibility, Complexity, Triable, Perceived ease of Use, Perceived Usefulness, Social Norms, Security & Trust and Awareness, which are tested with Demographic Variables.

ANOVA test is executed by formulating a null Hypothesis based

on the objectives of the study at a 95% level of significance. The rule for accepting the Null Hypothesis is that the "p" value or "Sig" value should be >0.05 at a 95% level of significance. If the Sig value results in less than 0.05 then reject H0: Null Hypothesis. In Table 5.1 the factors are tested with Gender and all the factors resulted in >0.05 except for factor Complexity. This means that there is a significant difference when referring to complexity among males and females in adopting Digital Banking Products and services. The complexity factor explains that there is a mean difference concerning the opinion of the respondents expressing that there is a lot of thinking involved and requires a lot of mental stress in using Digital Banking products and services.

Table 5.1: H<sub>01</sub>There is No Significant Difference in Factors Influencing Customers' Behaviour in the Adoption of Digital Banking Based on Gender

	ANOVA											
		Sum of Squares	df	Mean Square	F	Sig.	H <sub>0</sub> Accept/Reject					
Relative Advantage	Between Groups	1.402	1	1.402	1.151	.286	Accept					
	Within Groups	127.865	105	1.218								
	Total	129.266	106									
Compatibility	Between Groups	1.101	1	1.101	.893	.347	Accept					
	Within Groups	129.371	105	1.232			]					
	Total	130.472	106									
Complexity	Between Groups	1.284	1	1.284	4.244	.042	Reject					
	Within Groups	31.776	105	.303								
	Total	33.061	106									
Triability	Between Groups	1.262	1	1.262	.807	.371	Accept					
	Within Groups	164.159	105	1.563								
	Total	165.421	106									
Perceived Ease of	Between Groups	.034	1	.034	.135	.714	Accept					
Use	Within Groups	26.755	105	.255								

	Total	26.790	106				
<b>Perceived Usefulness</b>	Between Groups	2.115	1	2.115	2.144	.146	Accept
	Within Groups	103.584	105	.987			
	Total	105.699	106				
Social Norms	Between Groups	.152	1	.152	.116	.734	Accept
	Within Groups	137.410	105	1.309			
	Total	137.562	106				
Security and Trust	Between Groups	1.905	1	1.905	1.512	.222	Accept
	Within Groups	132.282	105	1.260			
	Total	134.187	106				
Awareness	Between Groups	3.677	1	3.677	3.381	.069	Accept
	Within Groups	114.174	105	1.087			
	Total	117.850	106				

Table 5.2 describes and tests Null Hypothesis H02 assuming that there is no significant difference in factors influencing customers in the adoption of Digital banking based on Age. The null hypothesis is accepted for all the variables. The "Sig" value for all

the Tested variables is>0.05 at a 95% level of significance. There is no significant difference in factors influencing when compared between age groups.

Table 5.2:  $H_{02}$  There is No Significant Difference in Factors Influencing Customers in the Adoption of Digital Banking Based on Age

	ANOVA											
		Sum of Squares	df	Mean Square	F	Sig.	H <sub>0</sub> Accept/Reject					
Relative Advantage	Between Groups	3.098	3	1.033	.843	.473	Accept					
	Within Groups	126.168	103	1.225								
	Total	129.266	106									
Compatibility	Between Groups	7.434	3	2.478	2.074	.108	Accept					
	Within Groups	123.038	103	1.195								
	Total	130.472	106									
Complexity	Between Groups	1.132	3	.377	1.217	.307	Accept					
	Within Groups	31.929	103	.310								
	Total	33.061	106									
Triability	Between Groups	1.071	3	.357	.224	.880	Accept					
	Within Groups	164.350	103	1.596								
	Total	165.421	106									
Perceived Ease of Use	Between Groups	.189	3	.063	.244	.866	Accept					
	Within Groups	26.601	103	.258								
	Total	26.790	106									
Perceived Usefulness	Between Groups	2.124	3	.708	.704	.552	Accept					
	Within Groups	103.575	103	1.006								
	Total	105.699	106									

Social Norms	Between Groups	3.241	3	1.080	.828	.481	Accept
	Within Groups	134.321	103	1.304			
	Total	137.562	106				
Security and Trust	Between Groups	1.106	3	.369	.285	.836	Accept
	Within Groups	133.081	103	1.292			
	Total	134.187	106				
Awareness	Between Groups	.771	3	.257	.226	.878	Accept
	Within Groups	117.080	103	1.137			
	Total	117.850	106				

Above Table 5.3 tests Null hypothesis H03 that there is no significant difference in factors influencing perceptions of customers in the adoption of Digital banking based on Education. The derived "p" value or "Sig" values are >0.05 except for *Compatibility*. We accept all other Null Hypothesis factors except for Compatibility. This

means that Customers with different Educational qualifications have opined that the existing Digital Banking services' suitability varies with their lifestyle and customisation is required to fit well to manage their finances.

Table 5.3:  $H_{03}$  There is No Significant Difference in Factors Influencing Perceptions of Customers in the Adoption of Digital Banking Based on Education

	ANOVA										
		Sum of Squares	df	Mean Square	F	Sig.	H <sub>0</sub> Accept/Reject				
Relative Advantage	Between Groups	6.658	4	1.664	1.385	.245	Accept				
	Within Groups	122.609	102	1.202							
	Total	129.266	106								
Compatibility	Between Groups	17.992	4	4.498	4.079	.004	Reject				
	Within Groups	112.480	102	1.103							
	Total	130.472	106								
Complexity	Between Groups	.750	4	.187	.592	.669	Accept				
	Within Groups	32.311	102	.317							
	Total	33.061	106								
Triability	Between Groups	7.680	4	1.920	1.242	.298	Accept				
	Within Groups	157.740	102	1.546							
	Total	165.421	106								
Perceived Ease of Use	Between Groups	.474	4	.119	.460	.765	Accept				
	Within Groups	26.315	102	.258							
	Total	26.790	106								
Perceived Usefulness	Between Groups	6.441	4	1.610	1.655	.166	Accept				
	Within Groups	99.258	102	.973							
	Total	105.699	106								
Social Norms	Between Groups	6.515	4	1.629	1.268	.288	Accept				
	Within Groups	131.046	102	1.285							
	Total	137.562	106								

Security and Trust	Between Groups	7.398	4	1.850	1.488	.211	Accept
	Within Groups	126.789	102	1.243			
	Total	134.187	106				
Awareness	Between Groups	5.872	4	1.468	1.337	.261	Accept
	Within Groups	111.978	102	1.098			
	Total	117.850	106				

Table 5.4 explains the ANOVA test with Null Hypothesis  $H_{04}$  that there is no significant difference in factors influencing perceptions of customers in the adoption of Digital banking based on Employment Status. The derived "p" value "Sig" values are >0.05 except for *Social Norms*. This means that there is significant

variation in mean scores among the Employment Groups, showing the influence of friends, family members and colleagues in adopting Digital Banking Services among the Employment Status categories.

Table 5.4:  $H_{04}$  There is No Significant Difference in Factors Influencing Perceptions of Customers in the Adoption of Digital Banking Based on Employment Status

ANOVA							
		Sum of Squares	df	Mean Square	F	Sig.	H <sub>0</sub> Accept/Reject
Relative Advantage	Between Groups	7.457	4	1.864	1.561	.190	Accept
	Within Groups	121.809	102	1.194			
	Total	129.266	106				
Compatibility	Between Groups	8.371	4	2.093	1.748	.145	Accept
	Within Groups	122.101	102	1.197			
	Total	130.472	106				
Complexity	Between Groups	1.937	4	.484	1.587	.183	Accept
	Within Groups	31.123	102	.305			
	Total	33.061	106				
Triability	Between Groups	7.610	4	1.902	1.230	.303	Accept
	Within Groups	157.811	102	1.547			
	Total	165.421	106				
Perceived Ease of Use	Between Groups	.804	4	.201	.789	.535	Accept
	Within Groups	25.985	102	.255			
	Total	26.790	106				
Perceived Usefulness	Between Groups	5.192	4	1.298	1.317	.269	Accept
	Within Groups	100.507	102	.985			
	Total	105.699	106				
Social Norms	Between Groups	16.523	4	4.131	3.481	.010	Reject
	Within Groups	121.039	102	1.187			
	Total	137.562	106				
Security and Trust	Between Groups	4.616	4	1.154	.908	.462	Accept
	Within Groups	129.571	102	1.270			
	Total	134.187	106				

Awareness	Between Groups	6.567	4	1.642	1.505	.206	Accept
	Within Groups	111.284	102	1.091			
	Total	117.850	106				

Table 5.5 tests the Null Hypothesis considering the current Users and Non- users of Digital Banking products and Services. This analysis is made to test the overall impact of Factors restricting non-users to restrain from Digital Banking irrespective of the Demographic variables. The Null Hypothesis for all the factors is accepted, where the Statistical Sig Value is >0.05 except

for *Complexity* with a value of 0.028. This means overall the respondents expressed that the suitability of the Existing product to their lifestyle and the procedural process is a bit difficult. This may be the main reason that restrains them from opting for Digital services effectively.

Table 5.5:  $H_{05}$ There is No Significant Difference in Factors Influencing Perceptions of Customers in the Adoption of Digital Banking among the Existing Users and Non-Users of Digital Banking services

ANOVA							
		Sum of Squares	df	Mean Square	F	Sig.	H <sub>0</sub> Accept/Reject
Relative Advantage	Between Groups	.610	1	.610	.498	.482	Accept
	Within Groups	128.656	105	1.225			
	Total	129.266	106				
Compatibility	Between Groups	.250	1	.250	.202	.654	Accept
	Within Groups	130.222	105	1.240			
	Total	130.472	106				
Complexity	Between Groups	1.500	1	1.500	4.990	.028	Reject
	Within Groups	31.561	105	.301			
	Total	33.061	106				
Triability	Between Groups	.111	1	.111	.070	.791	Accept
	Within Groups	165.310	105	1.574			
	Total	165.421	106				
Perceived Ease of Use	Between Groups	.061	1	.061	.239	.626	Accept
	Within Groups	26.729	105	.255			
	Total	26.790	106				
Perceived Usefulness	Between Groups	1.822	1	1.822	1.842	.178	Accept
	Within Groups	103.876	105	.989			
	Total	105.699	106				
Social Norms	Between Groups	2.000	1	2.000	1.549	.216	Accept
	Within Groups	135.561	105	1.291			
	Total	137.562	106				
Security and Trust	Between Groups	.084	1	.084	.066	.798	Accept
	Within Groups	134.103	105	1.277			
	Total	134.187	106				
Awareness	Between Groups	.469	1	.469	.419	.519	Accept
	Within Groups	117.382	105	1.118			
	Total	117.850	106				

Source: Primary Data

#### Finding of the Study

Based on the discussion, the following major findings are revealed.

- The study shows that the majority of the factors like Relative Advantage, Compatibility, Triable, Perceived ESE of Use, Perceived Usefulness, Security & Trust and Awareness have a positive influence when compared among the Users and Nonusers of Digital Banking Services.
- The study has a difference in mean scores in response to factors influencing Digital Banking when compared with categories based on Demographic Variables
- When analysing respondents, both existing Users and Non-Users of Digital Banking, it is found that the Complex nature of Digital Banking is hindering them from adopting Digital Services. The results of the study, when compared based on Gender, the same kind of results are found. Among the Genders Group males and females, there is a difference in Complexity.
- Compatibility varies concerning demographic Factors and Educational Qualifications. The suitability or fit of digital products and Services differ among the groups of customers based on their qualifications.
- The influence of Social Norms is not the same concerning groups tested based on their Employment Status. The respondents with different professions have different means for the influence of their friends, colleagues and Family members in adopting Digital Banking services.
- The overall Respondents express that Digital Banking Services are essential and they are willing to adopt them when certain provisions provided [15-29].

# Conclusion

In general, any innovation in the market has lower penetration in the initial stage of its introduction and requires suitable strategies to implement effectively. Many times customers watch and wait for the suitability of the product or service in adopting. The study revealed that the majority of the factors influencing Digital Banking among Users and Non-Users have no significant differences and have a positive influence on customers' attitudes toward adopting Digital Banking Services. When compared among the demographic variables, there exist differences in influencing factors on the adoption of Digital Banking. It is also evident from the findings that there exist differences among the respondents in fully augmenting the Digital Banking services for Complexity. Since Digital Innovations in banking deal with financial matters, customers will have a stringent approach to augmenting Digital Innovations in Banking. Most of the Digital applications designed to ensure security features in banking have complexity in their operational procedure. This results in difficulty for many Banking customers in making digital services as an opt decision. The operators of Digital services should consider the divergence of respondents based on different segments and design customised digital services and ensure product service suitability. Reengineering or redesigning digital products to have ease of access and make Transactions without compromising security issues can reduce the operational complexity.

#### **Conflict of Interest Statement**

The authors have no conflicts of interest. I agree and declare with the contents of the manuscript and there is no financial interest to report. I certify that the submission is original work and is not under review at any other publication.

#### References

- 1. Benda, P., Havlicek, Z., Lohr, V., & Havránek, M. (2011). ICT helps to overcome disabilities. AGRIS on-line Papers in Economics and Informatics, 3(665-2016-44817), 63-69.
- 2. Upadhyaya, L., Royburman, R., Sangeetha, V., Lenin, V., Sharma, J. P., & Dash, S. (2018). Factors affecting digital divide in ICT-led agricultural information delivery: A comparative analysis.
- 3. Newman, S. (2021). Building micro services. "O'Reilly Media, Inc".
- 4. O'flaherty, K. W., Stellwagen Jr, R. G., Walter, T. A., Watts, R. M., Ramsey, D. A., et al. (2001). U.S. Patent No. 6,253,203. Washington, DC: U.S. Patent and Trademark Office.
- 5. Allen, F., Gu, X., & Jagtiani, J. (2021). A survey of fintech research and policy discussion. Review of Corporate Finance, 1, 259-339.
- Bailey, A. A., Pentina, I., Mishra, A. S., & Ben Mimoun, M. S. (2020). Exploring factors influencing US millennial consumers' use of tap-and-go payment technology. The International Review of Retail, Distribution and Consumer Research, 30(2), 143-163.
- 7. Teka, B. M. (2020). Factors affecting bank customers usage of electronic banking in Ethiopia: Application of structural equation modeling (SEM). Cogent Economics & Finance, 8(1), 1762285.
- Barkhordari, M., Nourollah, Z., Mashayekhi, H., Mashayekhi, Y., &Ahangar, M. S. (2017). Factors influencing adoption of e-payment systems: an empirical study on Iranian customers. Information systems and e-business management, 15(1), 89-116.
- 9. Ansong, A., Marfo-Yiadom, E., &Ekow-Asmah, E. (2011). The effects of financial innovation on financial savings: evidence from an economy in transition. Journal of African Business, 12(1), 93-113.
- Vasanthakumari, H., & Sheela Rani, S. (2011). Customer Perception of Service Quality in the Retail Banking Sector". European Journal of Business and Management, 3(3), 299-306.
- Tat, H. H., Nor, K. M., Yang, E. T., Hney, K. J., Ming, L. Y., & Yong, T. L. (2008). Predictors of intention to continue using internet banking services: An empirical study of current users. International Journal of Business and Information, 3(2), 233-244.
- 12. Chau, P. Y., & Lai, V. S. (2003). An empirical investigation

- of the determinants of user acceptance of internet banking. Journal of organizational computing and electronic commerce, 13(2), 123-145.
- 13. Tan, M., & Teo, T. S. (2000). Factors influencing the adoption of Internet banking. Journal of the Association for information Systems, 1(1), 5.
- 14. Graham, S., Cornford, J., & Marvin, S. (1996). The socioeconomic benefits of a universal telephone network: A demand-side view of universal service. Telecommunications Policy, 20(1), 3-10.
- 15. Arnum, E., & Conti, S. (1998, July). Internet development worldwide: The new superhighway follows the old wires, rails, and roads. In INET'98, 21-24.
- 16. Awamleh, R., & Fernandes, C. (2006). Diffusion of internet banking amongst educated consumers in a high-income non-OECD country. Journal of Internet Banking and Commerce, 11(3), 2.
- Banga, K., &te Velde, D. W. (2018). Digitalisation and the Future of Manufacturing in Africa. Overseas Development Institute, London.
- 18. Banga, R. (2019). Is India Digitally Prepared for International Trade? Economic and Political Weekly, 54(5), 2.
- Chawla, D., & Joshi, H. (2017). Consumer perspectives about mobile banking adoption in India–a cluster analysis. International Journal of Bank Marketing.
- 20. Chen, M. C., Chen, S. S., Yeh, H. M., &Tsaur, W. G. (2016). The key factors influencing internet finances services satisfaction: An empirical study in Taiwan. American journal of industrial and business management, 6(6), 748-762.
- 21. Cheng, T. E., Lam, D. Y., & Yeung, A. C. (2006). Adoption of internet banking: an empirical study in Hong Kong. Decision support systems, 42(3), 1558-1572.

- 22. Chiu, J. L., Bool, N. C., & Chiu, C. L. (2017). Challenges and factors influencing initial trust and behavioral intention to use mobile banking services in the Philippines. Asia Pacific Journal of Innovation and Entrepreneurship, 11(2), 246-278.
- 23. Dash, M., Bhusan, P. B., &Samal, S. (1970). Determinants of CustomersâÂÂAdoption of Mobile Banking: An Empirical Study by Integrating Diffusion of Innovation with Attitude. The Journal of Internet Banking and Commerce, 19(3), 1-21.
- 24. Demirdogen, O., Yaprakli, S., Yilmaz, M. K., & Husain, J. (2010). Customer risk perceptions of internet banking—A study in Turkey. Journal of Applied Business Research (JABR), 26(6).
- 25. Dermine, J. (2016). Digital banking and market disruption: a sense of déjà vu?. Financial Stability Review, 20, 17-23.
- Singhal, D., & Padhmanabhan, V. (2008). A study on customer perception towards internet banking: Identifying major contributing factors. Journal of Nepalese business studies, 5(1), 101-111.
- 27. Nguyen, T., & Phuong Dang, T. (2018). Digital banking in Vietnam's current situation and recommendations. International Journal of Innovation and Research in Educational Sciences, 5(4), 418-420.
- 28. Nyangosi, R., & Arora, J. S. (2011). Antecedents and obstacles to e-banking adoption: a comparative study of India and Kenya. International Journal of Indian Culture and Business Management, 4(2), 123-137.
- Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. Computers in Human Behavior, 61, 404-414.

**Copyright:** ©2023 Johnpaul M. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.