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## Antecedents of Customer Adoption on Digital Banking with Special Reference to Non-Banking Financial Institutes in Sri Lanka

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### ABSTRACT

**Purpose:** The principal destinations of this examination are to contemplate and recognize the variables affecting the appropriation of digital banking among non-bank clients in Sri Lanka.

**Design:** A survey was carried out by using structured self-administered questionnaire. As the study is mainly focused on exploring the antecedents of adopting to the digital banking of non-banking organizations of the country, the target population were all the customers who are using digital banking services provided by non-banking organizations in the Sri Lankan context. Accordingly, the sample was based on 300 customers of the digital banking services provided by main players of the industry. The data was analyzed by using descriptive and inferential statistical tools and PLS based SEM was adopted to test the hypotheses.

**Findings:** The researcher has identified the factors; perceived usefulness, perceived ease of use, perceived risk, customer trust, compatibility and information quality affect customer adoption on digital banking among non-bank clients.

**Originality:** The study attempts to distinguish and examine the most significant and practical predecessors that can impact the advanced financial appropriation of non-monetary establishments considering the client's perspective. The study has chosen the TAM model for examining exact discoveries due to its nearby pertinence to the examination question. In view of the chosen model (TAM), however, numerous studies demonstrate that web ease of use, security, data quality, trust, administration quality, comfort, and protection are the main components in the reception of advanced banking by clients.

### KEYWORDS

Digital Banking,  
Customer Adoption, Non-Bank Financial  
Institutions, Sri Lanka,  
TAM model

### JEL

### CLASSIFICATION

G23, M15, M31

## I. Introduction

Digital banking is acceptably a novel thought. It is a help, delivered by various banks and moreover, money related associations that grant driving monetary trades through the Web in which those monetary systems are called advanced banking (Fonseka, Aluthgamage & Wickramaarachchi, 2018), characterized as banks that do not have an actual region, yet offer organizations right through the internet. As shown by Kumari (2013b) digital banking is a predominant game plan with a wide extent of contraptions available to firms as a

self-help development. As demonstrated by Kumari (2013a), and Flavián, Guinalú, and Torres (2006), advanced financial activities are more target arranged. Further, those researchers noted that computerized banking

activities have made many changes to the regular banking with opening new channel for customers to access the formal banking services. Digital banking organizations made another profitable and brisk transport channel for customers to value banking organizations from wherever they are, at whatever point (Juwaheer, Pudaruth, & Ramdin, 2012). Web banking implies the application and use of

banking and financial organizations through framework empowered devices, for instance, web-related PC, PDAs, or tablets. The most benefitted perspectives are its productivity and ease of getting (Harrison, Onyia, & Tagg, 2014). In light of the great test in the monetary division, most expert communities relegate gigantic spending plans towards making advanced financial organizations. Sri Lankan monetary customers are reluctant to use computerized banking, and just 1% of customers, all things considered, utilize advanced banking and other portion entries, which makes a basic qualification from the world (Ngoc Phan & Ghantous, 2013).

The Central Bank of Sri Lanka (CBSL) is the fundamental monetary foundation that controls and screens the entire monetary framework in the nation through different banking and non-banking monetary establishments. As indicated by the Central Bank yearly report (CBSL) in 2019, the Sri Lankan monetary framework can be sorted as the Banking area and non-Banking area like Finance and Leasing Sector, Primary Dealers, Microfinance Sector, and Money Broking Industry (Inoue, 2018). The Non-Banking Financial Industry of a nation assumes an essential part in the economy. It empowers the monetary intermediation measure before the banks. Moreover, it encourages the progression of assets among savers and borrowers. Dissimilar to the banks, it gives exceptional yields to savers and obliges marginal borrowers who are not greeted by the banks. There was no devoted performing for financial institutions other than the Companies Act. The Finance Companies Act No. 27 of 1979, brought account organizations heavily influenced by the Central Bank of Sri Lanka (CBSL) with the due controls appropriated in that period. Through this demonstration, it was made required for all money organizations to enlist under the CBSL. Money Leasing Act No 56 was presented in 2000. LFCs have been permitted to acknowledge fixed deposits from the overall population. From 2005 onwards, they were permitted to acknowledge savings deposits additionally

from the overall population. Industry is having around 7,000,000 clients as 57-60% borrowers and 40-43% contributors. It has housed 32,000 workers. The normal size of a monetary office is just Rs. 500,000. The business is supported principally through open stores (45%-56%), bank borrowings (32%-35%), and investor's capital mixture (8%-12%) (Daily FT, 2020).

The primary objective behind this examination is to recognize and study the antecedents which influence client digital banking adoption in Sri Lankan internet banking users. Less understandings of past researchers and inadequate confirmations in this field in Sri Lankan setting have been examined and thus the researchers paid attention on this. Accordingly, this study intends to fill this paucity by analysing the methodology of customary banks in tolerating web-based financial administrations. From the researchers' point of view, bankers and financial companies can use the findings of this study to develop a new approach for their future studies. Further findings will be immensely useful to develop a new guideline for the financial organizations to formulate new strategies to popularize the digital banking among the customers in domestic market.

In this paper, the researchers will first discuss the current situation of digital banking application in the financial sector and the literature of related concepts to justify the research model. Then, will continue by presenting the hypotheses and methodology. Discussion of the results will be presented in section five, followed by the conclusion in the final section.

## II. Literature Review

Internet banking has many names such as online banking, electronic banking, e-banking, virtual banking etc. The empirical studies relating to the online banking and digital banking clearly explore that the technology adaptation on the banking provides remarkable benefits to both customers and financial service providers

(Lee, 2009). Further Tarhini, El-Masri, Ali, and Serrano (2016) noted that digital banking helps to develop entire banking industry in remarkable growth (Hasim & Salman, 2010). In this section, authors attempt to discuss the conceptual background of digital banking and customer adaptation towards the digital banking. Further literature will be provided to identify the antecedents of digital banking used with the purpose of justifying the conceptual framework and the hypotheses (Rexha, Kingshott, & Shang, 2003).

### *Customer Adoption to Digital- Banking*

In early eras, people used a couple of detached and traditional trade systems for their monetary activities. As a general rule, banking was the most regular platform to fulfil their worth-based necessities (Lee, 2009). With the headway of present-day advancement, all strategies are overhauled to electronic and online virtual interfaces based on the needs of dynamic customers. The technological improvements of banking practices help to modernize the online trade methods with an imaginative interface (Hasim & Salman, 2010). Web banking is such a trade office that showed utilizing the World Wide Web to complete the cash related trades in a non-actual space (Malhotra and Singh, 2010). Accordingly, the modern customers can access to the information in the web space and perform their transactions on time without physically gather into the financial service encounters (Weerasekara & Abeygunawardhana, 2011). A couple of zones are describing web banking as electronic banking or e-banking. When it compares with the traditional banking system, it gives the latest and easiest way to associate with banking activities without any hassles relating to the physical banking process (Flavián, Guinalú & Torres, 2006). Digital based banking organizations are progressively improving the performances based on perseverance of the financial fragment in the domain of online business (Rexha, Kingshott, & Shang, 2003). However, the main benefits of internet banking to banks are cost saving, reaching

new segments of the population, efficiency, enhancement of the bank's reputation and better customer service and satisfaction (Flavián et al., 2006). Internet banking is extremely beneficial to customers because of the saving in costs, time and space it offers, its quick response to complaints, and its delivery of improved services, all of which benefits make easier banking (Turban, 2000).

Even though digital banking has been provided variety of benefits to the customers as well as banking organizations, many researchers argue that customer adaptation to the digital banking is relatively low. Tarhini et al. (2016) noted that tendency of customers to adopt the digital banking mainly depend on the customers perceived benefits in the process of satisfying their financial needs. In the Sri Lankan context, all commercial banks have been adopted to the digital banking services. However non-banking organizations of financial sector also adopted to the digital platform to carry out the banking services to their clients. But the dark side of the internet banking in Sri Lanka is, even though majority of the customers in the country were aware about e-banking facilities, most of them had not been tried those facilities by themselves (Suraweera et al., 2011). Jayasiri and Weerathunga (2008) argue that most of the customers still pay their bills, withdraw money, check balances, and deposit cheques at their bank counters much as the traditional way. Therefore, all the financial service providers in Sri Lanka have not achieved the expected level of customer adaptation to the digital banking services (Weerasekara & Abeygunawardhana, 2011).

### *Antecedents Affecting Customer Digital-Banking Usage*

Banking over the digital has pulled in expanding consideration all-inclusive since the late 1990s from banks, financier houses, and insurance agencies, just as the business press, controllers, and legislators (Lin & Hsieh, 2011). This consideration has been expected, to some extent, to the fast and

noteworthy development in electronic trade (web-based business) and the thought that electronic banking and instalments are probably going to propel pretty much planned with a web-based business (Lee, 2009). Industry examinations sketching out the potential effect of the Internet depending on cost investment funds, income development, and expanded client accommodation have created significant premium and hypothesis (Pikkarainen, Pikkarainen, Karjaluoto, & Pahnla 2004).

Chong, Ooi, Lin, and Tan (2010) argue that customer adaptation towards the utilisation of digital banking system mainly depend on the different situational factors. Malhotra and Singh (2007) found that ease of use, government backing and trust can be considered as the key antecedents of digital banking adaptation of customers. Furthermore, Wang and Li (2012) argue that more customers are considering the obvious benefits and security of transactions in performing the financial transactions in online services. On the other hand, Tan and Teo (2000) noted that individuals who perceive internet banking as advantageous would also be likely to adopt the service. Further, Tan and Teo (2000) argue that compatibility of customers with the digital environment, trial ability, risk and subjective norms etc. can be considered as an important factor affecting to the adaptation of online banking in many socio-cultural contexts.

As developing country, digital banking has not been broadly embraced by Sri Lankan customers. Therefore, identifying appropriate factors affecting to the digital marketing become important matter to further investigate (Broderick & Vachirapornpuk, 2002). Low utilization of digital banking becomes common trend of many part of the world (Flavián et al., 2006). Wang and Li (2012) noted that customers should be knowledgeable on the process of online banking to motivate to do their banking activities in the digital platform. Further Wang and Li (2012) point out that nonusers regularly whine that digital banking has no social measurement. Further according to

Weerasekara and Abeygunawardhana (2011), most of Sri Lankan customers have been apprehensive about security issues of digital banking services. Malhotra and Singh (2010) encapsulated several factors such as sexual orientation, age, and their impact on innovative acknowledgment and use which have become key antecedents of digital adaptation. Waite and Harrison (2002) noted that worldwide network, convenience, ease of execution and anticipations are important factors considered by the customers in adopting to online banking services. on the other hand, task achievement, is probably going to be remarkable elements influencing digital banking use (Chong et al., 2010).

### *Research Hypotheses*

As indicated in the literature review, the previous researchers have identified many factors affecting the customer adaptation towards e-banking services of different contexts. Some of those factors are used with the helpfulness of computerized banking, advanced financial convenience, advanced financial security, computerized banking data quality, and computerized banking similarity to test speculation connections. However, this exploration of the study exercises to evaluate the connection between six antecedents and usage of Digital Banking services offered by the non-banking financial service providers in the local context. Those are perceived usefulness, perceived ease of use, perceived risk, perceived trust, information quality and compatibility. Accordingly, six hypotheses were developed for the present study.

Numerous researchers have demonstrated that apparent helpfulness have huge and colossal effect on client mentalities towards the web-based banking appropriation (Polasik and Wisniewski, 2009). Seen handiness is regular acknowledgment of client that utilize the web-based banking for their exchanges and advantages towards commitment with the service providers (Lee, 2009). They expect such valuable activities as opposed to the conventional exchange methods through the web-based banking. It



was featured that simple to finish clients' assignment rapidly and accomplish the valuable advantages to the client. (Juwaheer, Pudaruth & Ramdin, 2012). Based on the given literature, first hypothesis was developed as:

*Hypothesis 1: There is a significant impact of perceived usefulness on the use of digital banking facilities in non-banking financial institutes in Sri Lanka.*

As per the innovative acknowledgment model, digital banking usability is a significant factor that influences the acknowledgment of data framework (Weerasekara & Abeygunawardhana, 2011). Perceived ease of use is an attitudinal influencing factor that clients may accept on the application of the digital banking as a valuable method (Juwaheer, Pudaruth & Ramdin, 2012). It was limited to the time exertion of clients that spent on their financial exercises as opposed to the traditional banking techniques (Wang, Cho & Denton, 2017). Therefore, ease of use and convenience are the most important factors to determine the customer willingness for adopting the online banking (Tam, 2012). An application said to be simpler to learn and simpler to be dealt with the exchanges can be recognized as convenience in a site (Chong et al., 2010). Further, apparent convenience has direct sway on client selection of the digital platform to perform their financial transactions (Eriksson et al., 2005). Furthermore Santos (2003) noted that apparent usability as an inspiring variable on client selection in the field of web banking. Based on the above discussion second hypothesis was formulated as:

*Hypothesis 2: There is a significant impact of perceived ease of use on the use of digital banking facilities in non-banking financial institutes in Sri Lanka.*

Web based banking have high vulnerability level as opposed to the conventional banking, since it works on the virtual stage and customers may have emotional barrier to accept the digital banking services (Tam,

2012). In relation to the hazard factor, various types of dangers can be recognized that legitimately influenced to the web based financial reception, for example, execution chance, social hazard, time chance, budgetary hazard, and security chance. Each hazard has diverse effect on web banking adaptation (Flavián, Guinalú & Torres, 2006). Thus, consumer loyalty and faithfulness have been recognized as a significant factor in building and keeping up the association with their client so as to decrease the apparent danger of utilizing web banking (Hernández, Jiménez & Martín, 2011). Based on the above discussion third hypothesis was formulated as:

*Hypothesis 3: There is a significant impact of perceived risk on the use of digital banking facilities in non-banking financial institutes in Sri Lanka.*

Trust is a most significant recognition that built up at the forefront of client's thoughts important to the achievement of online exchange (Pikkarainen et al., 2004). Customers are always willing to do their transaction through a trusted internet source while physically doing it. So significance of trust and security to the utilization of Internet banking has been noted in many previous studies (Zhou, 2014). Most of the previous studies demonstrated that the purchasers' trust is rely upon the protection and security elements of the digital platform (Chong et al., 2010). Further digital banking security is an important factor in the local context in the customers adaptation towards the digital banking (Weerasekara & Abeygunawardhana, 2011). To be increasingly exact, the security is seen as progressively noteworthy snag to web-based financial use (Pikkarainen et al., 2004). Based on the above discussion fourth hypothesis was formulated as:

*Hypothesis 4: There is a significant impact of perceived trust on the use of digital banking facilities in non-banking financial institutes in Sri Lanka.*

According to Malhotra and Singh (2007), digital banking data quality influences digital banking utilization altogether. For instance, if digital banking is non-concurring with different methods of banking, data quality may likewise influence the apparent utility of digital banking. Users need quality data to lead exchanges, which improves their living and working exhibition and adequacy (Polasik & Wisniewski, 2009). As demonstrated by (Devi Juwaheer et al., 2012), the quality of information was checked under the meaning of the information, reasonableness, and exactness of the information. Further, considering the information quality, it should apply to customer essential, and it should give exact information to build a trust at the bleeding edge of customer's contemplations. Besides, the information will be given at whatever point and wherever the fruitful affiliations were made with the clients (Hasim & Salman, 2010). Wrong information, mishandled information or polluted information could be impact on cash related mishap and it would be harmfully impact on the interaction of institutional objective as well. Data quality has highlighted the importance and estimation of data and it was really associating with the closeness in addition. Thus, giving quality data to the client is a central point that relies upon the web reception by clients (Wang et al., 2017). Based on the above conversation fifth hypothesis was formed as:

*Hypothesis 5: There is a significant impact of information quality on the use of digital banking facilities in non-banking financial institutes in Sri Lanka.*

According to Pikkarainen et al., (2004) web banking reception not generally rely upon the innovation driven perspectives. Albert, Goes and Gupta (2004) noted that choosing an innovation driven methodology must comprehend the client needs, thought processes and practices concerning the online stage clients who are looking for the assortment of inclinations from the administration experience (Tarhini et al.,

2016). Therefore, client understanding was a significant criterion that plan an important stage with a web banking appropriation. Further, most of the researchers demonstrated that there are very little good financial sites to make the client inclinations and client thought processes (Authors, 2015) Moreover, comparability is realized as a tremendous factor affecting advanced financial usage. In view of the above conversation sixth hypothesis was formed as:

*Hypothesis 6: There is a significant impact of compatibility on the use of digital banking facilities in non-banking financial institutes in Sri Lanka.*

### **III. Methodology**

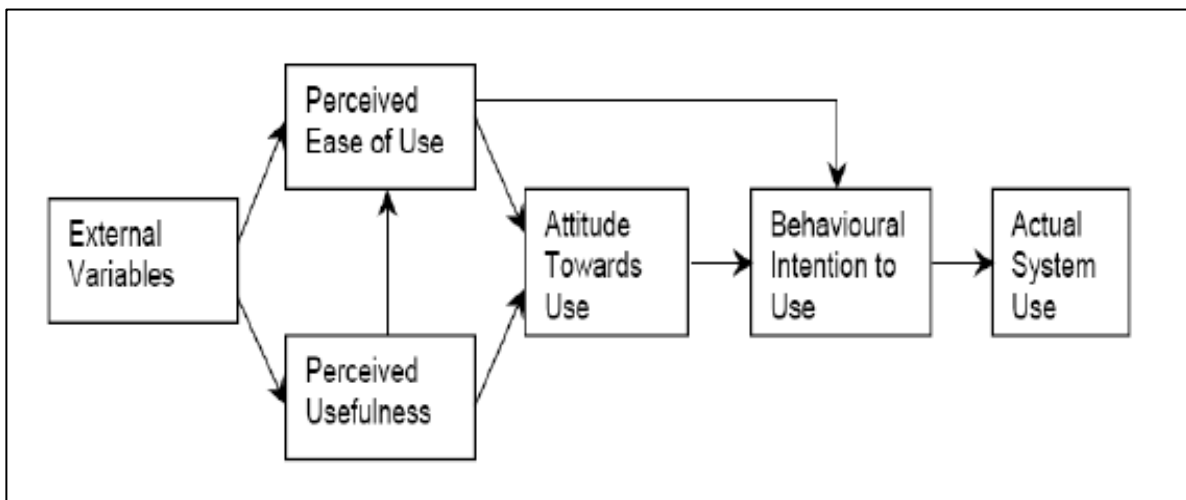
As the empirical nature of the present study, the positivism based deductive approach was selected as the research philosophy. Accordingly, quantitative research method was adopted as the research strategy. Sample survey was carried out by using structured self-administered questionnaire. The questionnaire was developed by using the appropriate measurement indicators identified in the intensive literature review and the selected response format was five-point Likert scales ranging from strongly agree to strongly disagree. The research was designed as a cross sectional study based on the individual level sample units. As the study is mainly focused on exploring the antecedents of adopting to the digital banking of non-banking organizations of the country, the researchers defined the target population as all the customers who are using digital banking services provided by non-banking organizations in the Sri Lankan context. Accordingly, 300 customers of the digital banking services provided by main players of the industry such as LOLC Finance, Commercial Leasing Company, LB Finance etc. were selected to the sample. Sample were selected based on multistage mix sampling method. The questionnaire was administered by using the e-mail campaign among the selected customers of the customer data base of aforementioned financial companies. The data was analysed by using descriptive and

inferential statistical tools after testing the validity and reliability. Further PLS based SEM was adopted to test the hypotheses and structural model was tested by using SmartPLS 3.0. Other statistical analysis was done by using IBM SPSS 23.0. All the assumptions were tested and assured all the requirements are fulfilled to estimate the structural model by using PLS based SEM.

### *Conceptual Framework*

The conceptual framework was developed by using theoretical model and the literature review (Figure 2). The Technology Acceptance Model (TAM) was adopted as main model and antecedents were identified based on the variable emphasis in the TAM (Figure 1). Each variable was further justified by the empirical results of the previous

researchers. TAM proposed by Davis, Bagozzi, and Warshaw (1989), to clarify PC utilization conduct, is one of the most-broadly utilized models in this issue of innovation reception (Tarhini et al., 2016). It was adjusted from the Theory of Reasoned Action (TRA) which was created by Ajzen and Fishbein (1980) which is general. TRA is "intended to clarify for all intents and purposes any human conduct" (Malhotra & Singh, 2007) and comprise of two factors that influence social aims; demeanour towards conduct and emotional standards (Lee, 2009). TAM created by Davis (1989) is utilized in this exploration. A thorough report on TAM reasoned that general TAM has demonstrated to be a valuable hypothetical model in comprehension and clarify client conduct in data frameworks execution.

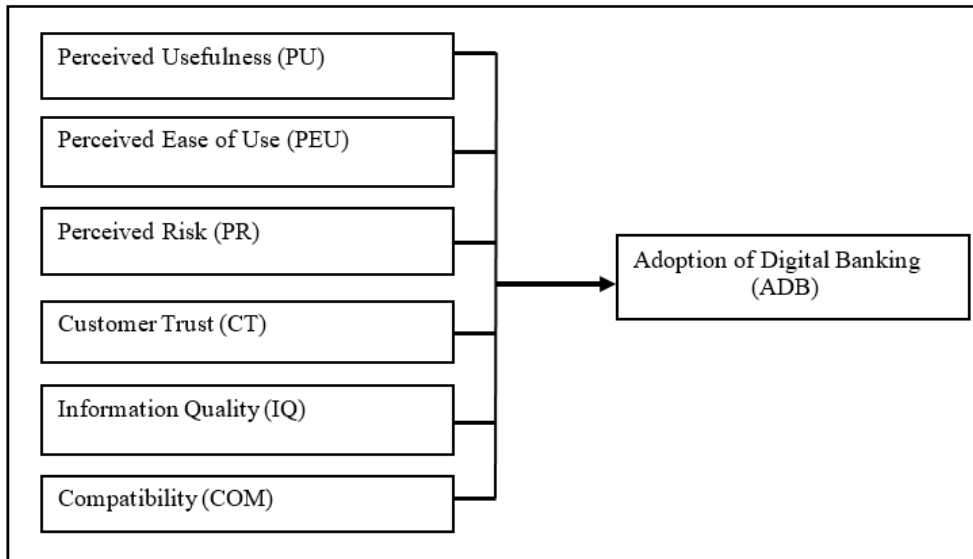


**Figure 1.** TAM Model, Source: Davis, Bagozzi, and Warshaw (1989)

Accordingly, conceptual framework adopted to the study is given in figure 1 given below. Based on the hypotheses developed above, the

conceptual framework was developed with the identification of independent and dependent variables as follows (See figure 2).





**Figure 2.** Conceptual Framework

#### IV. Empirical results

##### *Analysis of Validity and Reliability*

##### *Validity of the Variables*

As shown by (Zhou, 2014), validity can be described as how much insights contrast with the form that ought to be assessed. The authenticity of factor examination was coordinated on the things including Digital Banking handiness, Digital Banking ease of use, Digital Banking security, likeness, and information quality. Factor examination was driven using varimax turn as an extraction procedure as such authenticity of the construction is another critical verifiable instrument in separating associations among

factors (Pikkarainen et al., 2004). Authenticity checks how much the researcher gauges what he expected to measure. Campbell and Stanley (1963) describe inside authenticity as the fundamental requirement for an examination to be interpretable.

In this part, the researcher has looked at how consistent the results are for different things for a comparable improvement inside the action. There is a wide variety of internal consistency checks that can be used. Cronbach Alpha moreover an astounding test to measure the inward consistency. Besides, composite faithful quality is another helpful resource for check the steadfastness of a turn of events.

**Table 1.** Rotated Component Matrix

	Rotated Component Matrix					
	Component					
	1	2	3	4	5	6
PU1		0.706				
PU2		0.858				
PU4		0.784				
PU3		0.699				
PEU1	0.724					
PEU2	0.787					
PEU4	0.856					
CT2			0.766			
CT3			0.854			

CT4	0.841		
PR1			
PR2		0.699	
PR3		0.714	
COM1	0.862		
COM2	0.842		
IQ1			0.733
IQ3			0.711
IQ4			0.812

Extraction Method: Principal Component Analysis.  
Rotation Method: Varimax with Kaiser Normalization

The test results revealed that the construct validity of the above said questions are higher than 0.7 (Refer Table 1). The above result suggested that the questions are loaded with higher construct validity and besides the above two factors of digital banking, researcher willing to reveal Perceived Risk

(PRI, PR2, PR3), Compatibility (COM1, COM2) and finally Information Quality (IQ1, IQ3, IQ4) which also have higher construct validity. Moreover, all the components are approximately above 0.7 acceptance rate of Cronbach Alpha.

### *Test of Validity*

#### *Convergent Validity*

**Table 2.** Summarized Validity

Variables	No of Items	Cronbach's alpha Value	KMO	Bartlett's Test Chi-square	Sig.	AVE	CR
Perceived Usefulness	4	0.771	0.776		0	0.592	0.701
Perceived ease of Use	4	0.804	0.792		0	0.637	0.734
Customer Trust	6	0.842	0.847		0	0.561	0.729
Perceived Risk	4	0.717	0.739		0	0.553	0.718
Compatibility	2	0.719	0.5		0	0.78	0.758
Information Quality	5	0.809	0.805		0	0.573	0.711
Adoption of Digital Banking	4	0.749	0.684		0	0.571	0.716

The results of the convergent validity tests are depicted in Table 2 and all KMO, Bartlett's, AVE, CR and Cronbach's alpha conditions satisfied and it can be concluded that convergent validity is established. KMO value of six dimensions were greater than 0.5, Significant value of the respected dimensions were less than 0.05, AVE values were greater than 0.5 and CR values were greater than 0.7.

Therefore, convergent validity of respective dimensions was satisfied.

#### *Discriminant Validity*

According to table 3, the discriminant validity, which is assessed by comparing the shared variances among constructs with the AVE (average variance extracted) the individual constructs were evaluated. As explained in

(Validity & Validity, 2006), the shared variance of each variable, calculated by Pearson correlation test among constructs were lower than the AVE on the individual constructs and thus the variables are satisfying discriminant validity. According to

the test standard,  $r^2$  should be less than or equal to AVE value.

(Standard-  $r^2$  should be less than or equal to AVE Value)

**Table 3.** Discriminant Validity Table

	PU	PEU	CT	PR	COM	IQ	ADB
PU	<b>0.592</b>						
PEU	0.399	<b>0.637</b>					
CT	0.297	0.413	<b>0.561</b>				
PR	0.241	0.366	0.419	<b>0.553</b>			
COM	0.354	0.235	0.242	0.384	<b>0.780</b>		
IQ	0.326	0.454	0.306	0.369	0.323	<b>0.573</b>	
ADB	0.273	0.272	0.267	0.255	0.331	0.502	<b>0.571</b>

### *Reliability Test*

Reliability is measured by Cronbach's alpha which is an outstanding method for assessing the reliability of a coefficient. In other words, Cronbach's alpha measures how well a set of viewed variables describe a latent structure. Table 4 emphasized that Cronbach's alpha is high for all the factors (higher than 0.7). This indicates that the questions posed in each part

of the questionnaire satisfactorily meet Cronbach's required reliability and are suitable for measuring the factors. In addition, the composite reliability index, is also higher than 0.7 for all factors. Composite reliability indicates how well each structure has been described by the viewed and observed variables. In view of these results, the reliability of the data is confirmed.

**Table 4.** Reliability Test Analysis

Scale	Number of items	Cronbach's Alpha
Perceived Usefulness	4	0.771
Perceived Ease of Use	4	0.804
Customer Trust	6	0.842
Perceived Risk	4	0.717
Compatibility	2	0.719
Information Quality	5	0.809
Adoption of Digital Banking	4	0.749

### *Test of Normality*

This test empowers a direct reliable rule to be applied. Applying the overall rule of dividing every motivator by its standard bungle (Std. Goof), table 5 gives skewness and kurtosis for the portions. This is a genuinely crude test as it is affected by the size of the model (for greater models, an edge of  $\pm 2.58$  can be used).

(Rose, Spinks, & Canhoto, 2015), tests for the notion that a variable is normally scattered. As demonstrated by table 5, Skewness and Kurtosis esteems are in the reach between +2 to - 2. So, in general, it will be assumed that data is routinely scattered and thus, it might be applied as one model t-test and various backslide assessment to test the investigation objectives and examination speculation.

**Table 5.** Test of Normality

	N	Minimum	Maximum	Mean	Std.Dev.	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std.Err.	Statistic	Std.Error
PU_mean	300	1.75	5	4.073	0.48985	-1.199	0.163	4.219	0.324
PEU_mean	300	1.50	5	3.872	0.59377	-1.289	0.163	2.599	0.324
CT_mean	300	1.83	5	4.003	0.54607	-1.116	0.163	2.563	0.324
PR_mean	300	1.75	5	3.854	0.52792	-1.515	0.163	4.494	0.324
COM_mea	300	1.50	5	3.942	0.61828	-1.084	0.163	2.441	0.324
n									
IQ_mean	300	2.40	5	3.932	0.51353	-0.580	0.163	0.739	0.324
ADB_mean	300	2.00	5	4.067	0.47527	-1.034	0.163	2.896	0.324
Valid N	300								
(listwise)									

### *Objectives and Descriptive Analysis*

#### *Degree of customer Digital Banking Usage*

To check the degree of use of web banking workplaces among the web bank customers in Sri Lanka., the expert made a quantifiable test to refer the degree of huge worth. The researcher has made assessment standards to

measure the degree in Likert scale as seeks after. Inside the 0 – 1.66, markers measure the low degree of utilization of respondents' lead. The impetus among 1.67 – 3.33 shows that the moderate direct of the usage of web banking workplaces among the respondents and 3.34 – 5.00 pointers measure the high usage of web banking among the respondents' lead.

**Table 6.** Table of Scale

3.68 - 5.00	2.34 - 3.67	1.00 - 2.33
High Usage	Moderate Usage	Low Usage

Apart from the above scale, the needy variable pertaining to the Digital Banking utilization is additionally estimated through the reactions given to the 5-point Likert scale questions. To

do a quantitative investigation, the norms are weighted as follows. For positive inquiries Likert Scale.

**Table 7.** Likert Scale

Standard	Scale
Strongly Agreed	5
Agreed	4
Neutral	3
Disagree	2
Strongly Disagree	1

Thus, a movement of pointers was joined to evaluate the factors contained in the model. A large portion of these were assessed by a five-point Likert type scales, likewise, changed dependent on past research in the imaginative affirmation field; the sole extraordinary case was the "factors impacting advanced financial use". The researchers used an outline search for getting data from an illustration of 300 respondents. They were given a standard overview. Answers ought to separate using a quantitative methodology. Expressive and inferential genuine examinations were utilized to separate the data. The undeniable estimations included repeat, rates, means, and standard deviation while the inferential estimations included immovable quality tests, enlisted strategies, and various backslides tests for a last appraisal of the survey, the investigator applied the various backslide methodology. Five-point Likert scales going from unequivocally agree to immovably disagree was used as a reason of requests. This scale has been used in numerous researches therefore, the researcher has adopted Five-point Likert scales for the present research as well.

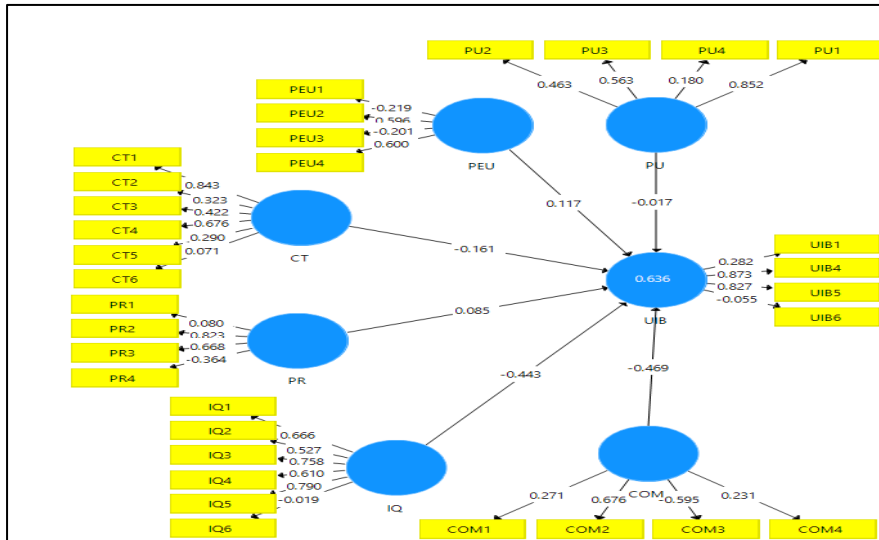
### *Research Findings and Discussion*

According to the idea of the examination, a few factual procedures were adjusted for the information investigation. At first, recurrence tallies, just as rates, were received to sum up the example results. In the distinct insights, primarily mean worth and standard deviation were determined to decide the quality of the example. All the estimation instruments' unwavering quality was tried based on the

Cronbach alpha worth and each worth ought to be more than 0.5 was considered as the satisfactory level for the information assortment. Nevertheless, that primary condition model is utilized to test the speculation separated from other pertinent estimations to accomplish the destinations. Furthermore, the latest Smart PLS 3 was employed as the software facilitator on programming all scales based on a five-point scale. As per a five-point scale unequivocally concur point was 5 and an emphatically differ point is 1 appropriately creator count was finished.

The primary model will have meant the connections among the principle builds in the reasonable structure by utilizing way coefficients. In like manner, the way coefficients address the conjectured connections among the develops in the model (Lee, 2009) The incentive for the way coefficient should fall between - 1 and +1. At the point when it tends towards +1, it is deciphered as a solid positive relationship which is genuinely critical, and the other way around. Be that as it may, if the Path coefficient is largely relied upon its standard blunder which can be obtained by thinking about two kinds of measures. As bootstrap standard mistake empowers to figure the t esteems and p esteems for all underlying way coefficients, the p-worth can be considered to survey the huge degree of way coefficients (Tarhini et al., 2016). Generally, 5% huge level can be considered as the limit level of the p-esteem, appropriately, the p-esteem should be more modest than 0.05 to exhibit the huge relationship among develops.





**Figure 3.** The impact of antecedents towards adoption of digital-banking, Note:Path diagram of the Smart PLS output

Further, the separate t worth should fall in the scope of - 1.96 to +1.96 to guarantee a huge degree of way coefficients. In this way, said condition can be considered as standards 01. Besides, (Polasik & Wisniewski, 2009) propose that analysts should check the bootstrap certainty spans under the Bias-Corrected estimator (BCa) way to deal with additional test the critical degrees of way

coefficients, on account of the first rule isn't fulfilled. As needs be, if the bootstrap certainty stretch doesn't have a zero worth, the way coefficient is as yet huge. It very well may be considered as measure 02. The way graph is given in figure 3 and the rundown of the measurements taken from PLS yield are given in Table 8.

**Table 8.** The relationship between antecedents with an adoption of digital-banking

	Original Sample (β)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	2.50%	97.50%
PU -> ADB (H1)	-0.017	-0.023	0.09	0.184	0.854	-0.166	0.243
PEU -> ADB (H2)	0.117	0.105	0.084	1.392	0.164	-0.07	0.254
PR -> ADB (H3)	0.085	0.071	0.082	1.047	0.295	-0.098	0.218
CT -> ADB (H4)	-0.161	-0.167	0.079	2.03	0.042	-0.33	-0.036
IQ -> ADB (H5)	-0.443	-0.425	0.051	8.773	0.000	-0.534	-0.355
COM -> ADB (H6)	-0.469	-0.404	0.258	1.817	0.069	-0.602	0.542

The path coefficient represents the exogenous latent variables' combined effect on the endogenous latent variable (Broderick & Vachirapornpuk, 2002). The researchers should assess the  $R^2$  values of all the endogenous constructs as a measure of the model's in-sample predictive power. According to Hair et al. (2017), when  $R^2$  values become 0.25, 0.50, and 0.75, it implied that the respective endogenous variables are weak, moderate, and strong respectively. Therefore, one of the main parts of the structural model evaluation is the assessment of coefficient of determination ( $R^2$ ). In the present research, adoption of digital banking is the main construct of interest (dependent variable). As per the estimated structural model given in figure 3, the overall  $R^2$  is found to be a moderate level ( $R^2 = 0.636$ ). In this case, it suggests that the six antecedents of customer adoption to digital banking as perceived usefulness, perceived ease of use, perceived risk, customer trust, compatibility and information quality which jointly explain 63 % of the variance of the endogenous construct (of customer adoption to digital banking). The  $R^2$  value is 63.6%; it is shown inside the blue circle of the employee commitment construct in the PLS diagram (see Figure 3).

Based on the Smart PLS output, hypotheses were tested and results were summarized according to the respective hypotheses. The individual path coefficients in the structural model and the table 2 represents the standardized Beta ( $\beta$ ) coefficients in an OLS regression which express a one unit change of the exogenous construct changes the endogenous construct by the size of the path coefficient while everything remains constant. However, whether path coefficients are significant or not should be determined by testing the statistical criteria. First hypothesis H1 considered, need to test the influence made by perceived usefulness (PU) on adoption of

digital banking. According to table 2, It explained that path coefficient ( $\beta = -0.017$ ) was reported as a negative impact of adoption of digital banking in non-banking industry in Sri Lanka. Further, in terms of the other statistical values as:  $p = 0.854$ ;  $t = 0.184$ ; and BCa (Bias Corrected) confidence intervals lower =  $-0.166$  and upper =  $0.243$ , revealed that the determinant taken weak significance on the level of adoption of digital banking, the impact made by the perceived usefulness on adoption of digital banking was insignificant. Therefore, H1 was rejected.

As per the second hypothesis (H2), the influence made by perceived ease of use (PEU) and adoption of digital banking in non-banking financial customer in Sri Lanka was tested. According to the output results, it explained as: slandered  $\beta = 0.117$ , it revealed that there is a positive influence made by perceived ease of use on adoption of digital banking in non-banking financial sector in Sri Lanka;  $p = 0.164$  means, probability value is above the threshold value (0.05);  $t = 1.392$  explained weak  $t$  value less than 1.96; and BCa (Bias Corrected) confidence intervals lower =  $-0.07$  and upper =  $0.254$  (there is zero laid between two confidence intervals), it confirmed that, the perceived ease of use and adoption of digital banking in non-banking financial customer in Sri Lanka insignificantly effects on the level of adoption of digital banking. While considering the significant variables of adoption of digital banking in non-banking financial customer in Sri Lanka, perceived ease of use is also the not influential determinant of adoption of digital banking in non-banking financial customer in Sri Lanka. Therefore, H2 was rejected.

As another lower path coefficient ( $\beta = 0.085$ ), perceived risk (PR) has positive impact on adoption of digital banking in non-banking financial customer in Sri Lanka. Further it was confirmed with the other statistical tests as well as:  $p = 0.295$ ;  $t = 1.047$  explained weak  $t$  value less than

1.96; and BCa (Bias Corrected) confidential intervals lower = -0.098 and upper = 0.218 (there is a zero laid between two confidence intervals), it further confirmed that, there is an insignificant influence made by the perceived risk on adoption of digital banking in non-banking financial sector in Sri Lanka. Therefore, H3 was also rejected.

With respect to the fourth hypothesis (H4) path coefficient ( $\beta = -0.161$ ), customer trust (CT) has negative influence on adoption of digital banking in non-banking financial institutions in Sri Lanka. Significance was further, revealed by the other statistical tests as well as:  $p = 0.042$ ;  $t = 2.03$ ; and BCa (Bias Corrected) confidential intervals lower = -0.33 and upper = -0.036 (no zero laid between two confidence intervals). Therefore, it elucidated that there is a negative significant influence of customer trust with adoption of digital banking in non-banking financial customer in Sri Lanka. Hence, H4 was accepted.

According to the fifth hypothesis (H5) path coefficient ( $\beta = -0.443$ ), information quality (IQ) has negative influence on adoption of digital banking in non-banking financial institutions in Sri Lanka. Significance was further, revealed by the other statistical tests as well as:  $p = 0.000$ ;  $t = 8.773$ ; and BCa (Bias Corrected) confidential intervals lower = -0.534 and upper = -0.355 (no zero laid between two confidence intervals). Therefore, it concludes that there is a negative significant influence of information quality on the adoption of digital banking in non-banking financial customer in Sri Lanka. Further, it was discovered that, among the set of determinants, information quality, is the most significant determinant of adoption of digital banking in non-banking financial institutions in Sri Lanka. Hence, H5 was accepted.

Further, when it considers the last hypothesis (H6), the path coefficient ( $\beta = -0.469$ ) was reported in the path of compatibility (COM). That means there is a negative significant influence of compatibility on adoption of digital banking in non-banking financial customer in Sri Lanka. Further, in terms of the other statistical values as:  $p = 0.069$ ;  $t = 1.817$ ; and BCa (Bias Corrected) confidential intervals lower = -0.602 and upper = 0.542, the results further verified that there is a zero laid between lower confident interval and upper confidence interval revealed that there is a negative insignificant influence made by the compatibility and it was also the insignificant determinant of adoption of digital banking in non-banking financial customer in Sri Lanka. Therefore, H6 was rejected.

## V. Conclusion and Recommendations

According to the research analysis, the nature of the respondents in the sample in terms of demography, Majority of the internet banking users are males (54.5%) rest, (45.5%) are females. Sample analysis revealed that males are more likely to use digital banking than females. And majority of the respondents are categorized above 500,000-1,000,000 (49.6%) the income level category. To identify the established research objectives, the hypothesis tests were performed. To test the hypothesis, structural equation model was applied. The findings and conclusions of the statistical analysis are shown below under each research objective.

According to the research objectives, it is needed to examine the most significant antecedent of the adoption of digital banking in non-banking financial customers in Sri Lanka. As per the findings shared as in the above paragraph, all the respective paths' coefficient was estimated and two of them were statistically significant. Therefore, the results demonstrate that only two hypotheses were accepted and relevant objectives were

achieved, four other hypotheses were rejected and those objectives were also failed. Therefore, the overall findings imply that two antecedents are significant and positively impact on the level of adoption of digital banking in non-banking financial customer in Sri Lanka. Therefore, the results further confirmed that objectives supported through literature as well as through empirical evidence in the present research context. According to the previous literature, adoption of digital banking in banking sector customers is considered in different aspects but no one considered all the antecedents together to determine the digital banking in non-banking financial sector in Sri Lanka. Moreover, there aren't any research studies which can be seen based on the identification of the antecedents of digital banking in non-banking financial customer in local context, where non-banking customers are focused. Therefore, it can be concluded that present research is able to fill the literature gap emphasized by the researcher based on the relationship between antecedents and adoption of digital banking in non-banking financial industry in Sri Lanka.

Based on the findings, it was noted that the information quality has the highest significant contribution in developing adoption of digital banking in non-banking financial industry in Sri Lanka. The perceived usefulness is identified as the least significant determinant of adoption of digital banking in non-banking financial customers in Sri Lanka. Therefore, it is a respectable indicator for the policy makers to pay more attention on the perceived usefulness as the least significant antecedent for further improvements. It further, explained that compatibility is in some substantial level, so this antecedent could be used to motivate customers to use their mobile phone to do online transactions with the respective financial institutes for enrich their financial transactions. Especially, the attention of policy makers should be focused on perceived usefulness as the least significant factor of adoption of digital banking in non-banking financial industry in Sri Lanka to

encourage that determinant to enhance the adoption of digital banking in non-banking financial sector in Sri Lanka. As per the researcher recommendations, the government should take the supervision of the non-banking financial institutions to encourage digital transaction levels while providing digital infrastructures targeting the non-banking customers in Sri Lanka. Therefore, research findings could be useful for the policy makers of the country to enhance adoption of digital banking in non-banking financial industry in Sri Lanka. Based on research findings the policy makers could understand which aspect of determinants perform less but are important to determine the level of adoption of digital banking in non-banking financial sector in Sri Lanka. For instance, findings of the study revealed that the least significant determinants as perceived usefulness. Therefore, policy makers should focus on implementing some workshops on how to use customers' mobile phone as a commonly using equipment which could be easily used for digital banking transaction to enhance their technological skills. Further, this study provides a special contribution on existing literature and on the policy makers as findings provide a clearer understanding in significant antecedent on adoption of digital banking in non-banking financial industry in Sri Lanka. One of the main limitations in the study is, the research has only focused on the quantitative aspect. It is recommended for the future researchers to focus on qualitative data as well.

According to the assessment information, quality, in particular influence the utilization of web banking workplaces than various archetypes. It gives high importance and high impact to subordinate factors and it recognizes the elective hypotheses. Inside the Sri Lankan setting, information act and other enlightening resources were directly affected by such an advancement like information. An enormous segment of the normal individuals has coordinated the informational need than their crucial necessities. As shown by the examiner, information quality was

coordinated than various components inside the setting of online banking.

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