

Trust, acceptance, and use of online banking services in the Philippines

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Abstract

The challenge of enhancing the overall acceptance and use of online banking in the Philippines remains to be a tough one. While there are many technological and environmental developments that should spur more and more Filipinos to finally consider online banking as a viable alternative to avail financial products and services, the fact remains that only a small portion of the country is actually going online to do their banking activities. This research, utilizing the Unified Theory of Acceptance and Use of Technology (UTAUT), explores some of the factors that influence Filipinos' behavioral intentions to use online banking. Data collected from 307 online bank customers were analyzed (1) to identify specific insights on the technical, social, and environmental factors that are important to customers, and (2) to determine which of these factors influence these behavioral intentions to use of online banking services. The results show that trust and facilitating conditions are major favorable factors, while performance expectancy, effort expectancy, and social influence must be improved. Further implications and recommendations are also included in this research.

Keywords: online banking, trust, UTAUT, Philippines

1. Introduction

The past three to five years have seen a flurry of technological developments in the Philippine banking industry. Indeed, research has shown that adopting banking technologies has considerably reduced the cost of doing business, for both banks and their customers (Baabdullah et al., 2019). Recognizing these benefits of going digital and exploiting technologies such as line-based and mobile Internet connectivity, both the public and the private sectors in the Philippine banking industry have either enhanced their already existing online presences or rolled out new ones. The Bangko Sentral ng Pilipinas (BSP), the Philippines' central bank, has been a strong supporter of the push for more Filipinos not only to be banked, but to also embrace online banking services. BSP also has a number of online facilities under its wing: PESONet ACH (Philippine Electronic Fund Transfer System and Operations Network Automated Clearing House), InstaPay and eGovPay (Lopez, 2020a, 2020c; Lucas, 2019). BSP reported that as of August 2020 (Diokno, 2020), total PESONet ACH transactions (numbering at 2.7 million transactions) were valued at PhP252.9 billion (USD5.22 billion) while total InstaPay-related transactions numbering at 29.5 million transactions) were valued at PhP141.2 billion (USD2.91 billion). Using March 2020 as the baseline, these represented a 120% increase in volume and a 70% increase in value for PESONet ACH, and a 312.2% increase in volume and a 206% increase in value for InstaPay. BSP has also committed to streamlining regulatory processes and

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issuing firm guidelines and rules governing banks in the country on how to facilitate and manage their online activities (Chipongian, 2020; Lucas, 2019). Many players providing financial information and communication technology (ICT) solutions have been ramping up their offerings to include Internet of Things (IoT), artificial intelligence (AI), and blockchain, among others, and have been rejuvenating campaigns to increase awareness and understanding on privacy and security issues related to online banking (Manila Standard, 2020; Newsbytes.PH, 2020; Piad, 2020). All of these developments pave the way for quite a number of efforts to further enhance online banking in the Philippines, and to make more Filipinos go online to do their banking activities.

This has been further made prominent by the COVID-19 pandemic. Because of the inability of individuals to go out and physically transact with their banks, or make physical face-to-face transactions altogether, the reliance on such technologies has skyrocketed. BSP reported that during the first 45 days of the enhanced community quarantine, online bank transactions went up by 25%, or by an additional 2.13 million transactions worth Php64.62 billion (USD1.33 billion) (Lopez, 2020c). During the quarantine period, over four million new digital accounts were opened (Diokno, 2020). Domestic banks such as Landbank of the Philippines (LBP) recorded a 57.7% increase in the volume of transactions from February to March of 2020 (Newsbytes.PH, 2020). Security Bank reported a 170% increase in the usage of their online banking platform within the period of March to August (Dumlao-Abadilla, 2020). In addition, all within a span of a month, Bank of the Philippine Islands (BPI) reported a 25% increase in interbank transfers, e-commerce transactions, and bills payment within the first two weeks of the quarantine, translating to 1.5 million transactions worth Php8 billion (USD165.06 million), Philippine National Bank (PNB) observed a 14% increase in enrollment to their mobile banking platform and a 13% increase in online financial transactions, Rizal Commercial Banking Corporation (RCBC) experienced a 156% surge in online transactions, and UnionBank observed a 160% growth in daily registrations to their online desktop and mobile platform, more than 500,000 credit card transactions, and over Php1 million (USD20,631) in fund transfers (Noble, 2020). Furthermore, foreign banks such as ING, which is fully online in the Philippines, is taking advantage of this development, rolling out its own e-payment services in November 2020 and announcing plans for online consumer loans on top of its existing banking services (Lopez, 2020b; Piad, 2020). All in all, there is actually much significant activity going on to enable the entire Philippine banking industry to level up and improve its presence in the online banking domain.

However, despite these, many Filipinos are still unbanked, or have not fully embraced online banking services (Lopez, 2020a). It is unfortunate that it took a pandemic for many – both banks and customers – to realize the benefits of online banking. This leaves little doubt that going online is becoming more and more embedded in banking activities. However, if the different players within the banking industry wish to have some more headway in making this sustainable, they must take the time and the effort to periodically review the overall performance of their respective online channels (Baabdullah et al., 2019; Slade et al., 2015; Tarhini et al., 2016). The present COVID-19 situation has merely accelerated the plans to have more and more people to go digital in their banking activities.

Hence, the following research questions are posed:

RQ1: What factors influence Philippine online banking acceptance and use?

RQ2: What is the role of trust in Philippine online banking acceptance and use?

2. Literature review

2.1. E-banking in the Philippines

Within the Philippine context, there have been a number of interesting past researches examining offline banking and online banking from many different perspectives and dimensions. These include perceived effectiveness of service channels (Depusoy et al., 2020), customer perceptions on service quality (Mendoza et al., 2020; Talavera, 2020), customer acceptance of technology use in banking (Lim, 2013; Morales & Trinidad, 2019a, 2019b, 2019c; Quilantang, 2016), and customer satisfaction (Mendoza et al., 2020). These past researches have also observed the current and potential favorable roles of technology in their respective areas of focus.

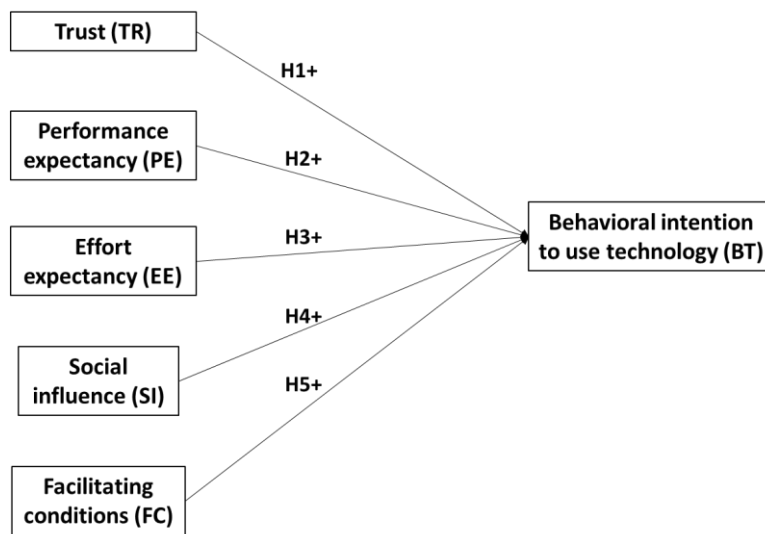
Such researches provide much empirical support for the industry side highlighting a number of considerations to improve Filipinos' perceptions towards online banking. Experts agree that to increase consumer adoption and use and customer satisfaction, banks should focus on delivering convenient, speedy, secure services (de Jesus, 2019; Publico, 2019). These should be supported by a strong ICT infrastructure that can ensure quality services and reliable protection from cyberattacks (ABS-CBN News, 2016; Manila Standard, 2020). However, all of these are still in varying stages of development, with some banks going ahead, while others are falling behind. Furthermore, the pressure to further innovate and diversify banks' revenue streams in order to increase bottom lines is also a significant consideration in the design and development of these online banking channels.

2.2. Behavioral intentions to use and online banking

Behavioral intentions to use technology describes the factors that determines if an individual will perform the action in question, under the context in question (Venkatesh et al., 2003). In other words, it is a key predictor in the analysis of whether or not individuals would eventually adopt and use a certain technology (Venkatesh et al., 2011). In this context, the action expected to be performed is the adoption and use of online banking channels (Baabdullah et al., 2019; Slade et al., 2015; Tarhini et al., 2016).

There are many different perspectives, points of view, and schools of thought regarding how can organizations encourage their customers to exhibit some form of favorable behavioral intentions to use whatever the organizations are offering. This research adopts the Unified Theory of Acceptance and Use of Technology (UTAUT) point of view. UTAUT argues that individuals' perceptions on four fundamental considerations of performance expectancy, effort expectancy, social influence, and facilitating conditions influence their dispositions to exhibit some form of behavioral intentions to use the technology is question (Baabdullah et al., 2019; Slade et al., 2015; Tarhini et al., 2016; Venkatesh et al., 2003; Venkatesh et al., 2011). But over time, other considerations relevant to the context being studied have been added to the UTAUT perspective. Specific to this research, one important addition to the UTAUT is the considerations regarding trust. In IS research, trust is a central construct influencing many types of online attitudes and behaviors (McKnight & Chervany, 2001; McKnight et al., 2002). The role of trust in online banking in particular is quite obvious at this point. For one, the banking industry deals with quite a vast amount of personal and personally-identifying information, and is quite exposed to varying degrees of security and privacy risks (Slade et al., 2015; Tarhini et al., 2016). Hence, the proposed research model is shown below (*See Figure 1: Proposed research model*).

Figure 1: Proposed research model



2.3. Trust and online banking use

Trust, most especially in the banking industry, is a very critical consideration (Slade et al., 2015). And this is further emphasized by the fact that the banking industry is always beset with issues pertaining to risks and security, privacy concerns, and credibility (ABS-CBN News, 2016; Manila Standard, 2020; Publico, 2019; Slade et al., 2015; Tarhini et al., 2016).

Theoretically, one way to entice more individuals to adopt and use technologies is to build and develop trust at the beginning (Venkatesh et al., 2011) – or what is known in research as initial trust (McKnight & Chervany, 2001; McKnight et al., 2002). Many banks attempt to build trust through multiple approaches and tactics in the hopes that they can leverage their brand image to entice more of their customers to avail more of their services, including their online banking channels (de Jesus, 2019; Dumlao-Abadilla, 2020; Lopez, 2020a, 2020b, 2020c; Manila Standard, 2020; Newsbytes.PH, 2020; Noble, 2020; Piad, 2020; Publico, 2019).

H1: Customer trust in online banking positively influences their behavioral intentions to use online banking

2.4. Performance expectations and online banking use

Performance expectancy is the belief that using the technology being employed to carry out a task will help in attaining performance gains in more convenient and productive ways (Venkatesh et al., 2003). In other words, this is about the overall perceived usefulness of the technology from a rational point of view (Venkatesh et al., 2011). Both academics and experts have pointed out in order for online Philippine banking to flourish, this should provide better and more useful services compared to its offline counterparts (de Jesus, 2019; Manila Standard, 2020; Morales & Trinidad, 2019a, 2019b, 2019c; Publico, 2019). In this regard, this research hypothesizes that favorably delivering on these performance expectations leads to favorable increases in bank customers' behavioral intentions to use online banking platforms (Baabdullah et al., 2019; Slade et al., 2015; Tarhini et al., 2016).

H2: Customers' performance expectations on online banking positively influences their behavioral intentions to use online banking

2.5. Effort expectations and online banking use

Effort expectancy describes the ease of use of the technology employed to accomplish a task (Venkatesh et al., 2003). This means that, compared to the other alternatives to perform the task, the technology must be simpler, easier, and requiring less effort and less assistance, if any at all, to use (Venkatesh et al., 2011). This is also consistent with what Philippine online banking channels should endeavor regarding that critical dimension on convenience to further encourage more Filipinos to use them (de Jesus, 2019; Manila Standard, 2020; Morales & Trinidad, 2019a, 2019b, 2019c; Publico, 2019). As such, this research hypothesizes that working towards addressing these effort expectations leads to bank customers having increased favorable behavioral intentions to use online banking platforms (Baabdullah et al., 2019; Slade et al., 2015; Tarhini et al., 2016).

H3: Customers' effort expectations on online banking positively influences their behavioral intentions to use online banking

2.6. Social influence and online banking use

Social influence describes the individual's perceptions towards what others say regarding the technology being used to accomplish a task (Venkatesh et al., 2003). This variable takes into consideration that some technologies are being pushed as "the next big thing" that will make users attain some form of social status, and that individuals are sometimes being subjected to some degree of "peer pressure" to start using the technology (Venkatesh et al., 2011). Based on the arguments of many academic studies and on the impressions derived from industry reports, this particular variable can be a very powerful one to persuade individuals to use online banking (de Jesus, 2019; Morales & Trinidad, 2019a, 2019b, 2019c; Publico, 2019). In fact, many have touted online banking indeed as the next big thing for Philippine banking, rolling out all sorts of different services offerings and features (Lopez, 2020b; Manila Standard, 2020; Piad, 2020). Hence, this research hypothesizes that creating favorable social influences leads to favorable increases in bank customers' behavioral intentions to use online banking platforms (Baabdullah et al., 2019; Slade et al., 2015; Tarhini et al., 2016).

H4: Customers' views on social influences positively influences their behavioral intentions to use online banking

2.7. Facilitating conditions and online banking use

Facilitating conditions covers the individuals' beliefs that there is adequate organizational and infrastructure support to effectively and efficiently use the technology being employed to accomplish the tasks it is supposed to do (Venkatesh et al., 2003). This is also colloquially referred to as the favorable external environmental conditions that empower and enable users to exert considerable control over the technology that they are using (Venkatesh et al., 2011). Previous researchers and industry reports have also stressed the need for the right environmental, organizational, and technological conditions to entice more Filipinos to avail of such technologies available to them to become banked, and to subscribe and patronize online banking channels (ABS-CBN News, 2016; de Jesus, 2019; Lopez, 2020a; Manila Standard, 2020; Morales & Trinidad, 2019a, 2019b, 2019c; Publico, 2019). Therefore, this research hypothesizes that better and more favorable facilitating conditions would lead to increased behavioral intentions to use online banking channels (Baabdullah et al., 2019; Slade et al., 2015; Tarhini et al., 2016).

H5: Customers' views on facilitating conditions on online banking positively influences their behavioral intentions to use online banking

3. Methods

A combination of paper-based and online seven-point Likert-scale survey (1=very much disagree to 7=very much agree) was used for the data collection. The adopted question items were based on the original UTAUT model and were revised accordingly to suit the context based on the cited previous studies on the similar contexts of banking services. Convenience sampling was employed, and quotas were set for the type of channel (website vs. mobile app) and the type of device (desktop/laptop vs. tablet/smartphone). This is to ensure that there is some degree of equitable representation to improve the accuracy of the data set with the prevailing realities of Philippine online banking use. The target respondents surveyed had at least some experience repeatedly transacting with a bank through its website and/or its mobile app. This also means that the respondents own at least a desktop or laptop computer and/or a mobile device (tablet or smartphone). This is all consistent with previous research arguing that experienced users can provide much more valuable and actionable insights, comments, and feedback regarding technology use (Venkatesh et al., 2011). Accordingly, a total of 307 usable responses were collected and used for the analysis of this research.

4. Analysis and results

4.1. Respondent profiles

Of the 307 respondents, a little over 60% use smartphones or tablets more often to conduct their banking activities. A little over half of the respondents are from 24 to 35 years old. The respondent sample also included another 13% aged 56 years or older. Females comprise 61% of the sample, while singles represent almost 62% of the respondents. Most of the respondents have at least a college undergraduate degree.

Table 1: Respondent demographics (N=307)

	N	%
Device used		
PC or laptop	122	39.74
Smartphone or tablet	185	60.26
Age group		
24 to 35 years old	159	51.79
36 to 45 years old	29	9.45
46 to 55 years old	79	25.73
56 years old and above	40	13.03
Gender at birth		
Male	119	38.76
Female	188	61.24
Marital status		
Single	190	61.89
Married	105	34.20
Separated	9	2.93
Widowed	3	0.98
Highest educational attainment		
High school graduate	2	0.65
Some college	9	2.93

	N	%
College graduate	217	70.68
Some post-college	30	9.77
Post-college	49	15.96
Average time spent on online banking		
5 to 10 minutes	120	39.09
11 to 15 minutes	59	19.22
16 to 20 minutes	47	15.31
21 to 25 minutes	19	6.19
26 to 30 minutes	31	10.10
More than 30 minutes	31	10.10
Number of online banking accounts		
1 to 3 accounts	176	57.33
3 to 5 accounts	75	24.43
5 to 7 accounts	36	11.73
More than 7 accounts	20	6.51
Years using online banking		
Less than 1 year	19	6.19
1 to 2 years	69	22.48
2 to 3 years	69	22.48
3 to 4 years	47	15.31
4 to 5 years	25	8.14
More than 5 years	78	25.41

Almost 40% of the respondents disclosed that they are averaging some 5 to 10 minutes per session on online banking. Some 57% shared that they have one to three online banking accounts. Furthermore, a fourth of the sample said that they have been using online banking for more than five years already. Another 22% said that they have been using online banking for two to three years, while another 22% were engaged in online banking for one to two years.

4.2. Descriptive, validity, and reliability statistics

The descriptive analyses were done via SPSS 21 statistical software, while the validity and reliability analyses were done using confirmatory factor analysis (CFA) via AMOS 16 statistical software. Question items with standardized loadings below the recommended threshold of 0.700 were dropped from the final measurement model. The resulting numbers proved to be in compliances with the CFA rules-of-thumb evaluating the model fit. Furthermore, the generated average variance extracted (AVE) numbers for each research variable confirmed good convergent validity, while the resulting composite reliability (CR) and Cronbach Alpha numbers all show good reliability. All in all, based on these statistical tests, the data is deemed fit to be used for hypotheses testing.

Table 2: Descriptive, validity, and reliability statistics

Variable	Question Item	Mean	Std. Dev.	Std. Loading	AVE	CR	Cron. α
Trust (TR)	(Slade et al., 2015; Venkatesh et al., 2011)				0.707	0.828	0.825

Variable	Question Item	Mean	Std. Dev.	Std. Loading	AVE	CR	Cron. α
TR4	I believe that the bank will do everything to secure the online transactions for users.	5.681	1.445	0.877			
TR2	I believe that the bank keeps customers' interests in mind.	5.557	1.381	0.803			
TR1	I believe that the bank keeps their promise/s.	5.459	1.403	Deleted			
TR3	I believe that the bank is trustworthy.	5.450	1.416	Deleted			
Performance expectancy (PE) (Venkatesh et al., 2011)					0.813	0.897	0.895
PE2	Using this online banking channel enables me to avail of banking services more quickly.	6.068	1.428	0.930			
PE3	Using this online banking channel increases my efficiency in transacting with the bank.	5.873	1.504	0.877			
PE1	I find this online banking channel useful in my daily life.	6.283	1.189	Deleted			
Effort expectancy (EE) (Venkatesh et al., 2011)					0.858	0.924	0.924
EE1	Navigating through this online banking channel avail of banking services is clear and understandable.	5.870	1.332	0.934			
EE3	I find this online banking channel easy to use to avail of banking services.	5.974	1.321	0.919			
EE2	It is easy for me to master using this online banking channel to avail of banking services.	5.964	1.322	Deleted			
Social influence (SI) (Venkatesh et al., 2011)					0.871	0.953	0.953
SI2	People who are close to me think that I should use this online banking channel to avail of banking services.	5.326	1.535	0.954			
SI1	People who are important to me think that I should use this online banking channel to avail of banking services.	5.375	1.497	0.930			
SI3	People whose opinions I value prefer that I should use this online banking channel to avail of banking services.	5.420	1.492	0.916			
Facilitating conditions (FC) (Venkatesh et al., 2011)					0.657	0.790	0.771

Variable	Question Item	Mean	Std. Dev.	Std. Loading	AVE	CR	Cron. α
FC1	I have the knowledge necessary to use this online banking channel to avail of banking services.	6.176	1.192	0.909			
FC2	This online banking channel to avail of banking services is compatible across the different devices that I use.	5.977	1.380	0.698			
FC3	Help services are available for assistance for difficulties with this online banking channel to avail of banking services.	5.508	1.485	Deleted			
Behavioral intention to use technology (BT) (Venkatesh et al., 2011)					0.712	0.881	0.875
BT2	I plan to use this online banking channel avail of banking services more frequently in the next few months.	5.850	1.447	0.880			
BT1	I intend to continue using this banking online channel to avail of banking services in the next few months.	6.094	1.268	0.868			
BT3	I intend to continue using this online banking channel avail of banking services rather than do it offline.	5.664	1.532	0.779			

Model fit: CMIN=140.568; CMIN/DF=2.267; GFI=0.941; AGFI=0.900; RMR=0.056; NFI=0.961; TLI=0.967; CFI=0.978; RMSEA=0.064

The CFA results show the following insights for each research variable as stated by customers of Philippine online banking. Trust is all about the belief that the banks will do everything to secure customers transactions. For performance expectancy, it is the ability of the online banking channel to enable customers to accomplish their transactions. For effort expectancy, what customers perceive the most is the clear and understandable navigation through the online banking channel. Social influence is all about the inputs from the people that customers think they are close to. Facilitating conditions is all about the necessary knowledge that is needed to use the online banking channel. Lastly, the variable on behavioral intentions is about the customers planning to use online banking more frequently within the immediate foreseeable future.

In addition, a correlation matrix with the square root of the AVE in the diagonal was generated. This is to further test the discriminant validity of the collected data. The results show that there are no discriminant validity issues, as all the square root of the AVE numbers are higher than all the other numbers in the correlation matrix.

Table 3: Correlation matrix with the square of the AVE in the diagonal

	TR	PE	EE	SI	FC	BT
TR	0.841					
PE	0.544	0.901				
EE	0.597	0.740	0.927			
SI	0.566	0.572	0.649	0.933		
FC	0.638	0.617	0.691	0.567	0.810	
BT	0.679	0.581	0.660	0.555	0.731	0.844

4.3. Structural equation modeling (SEM)

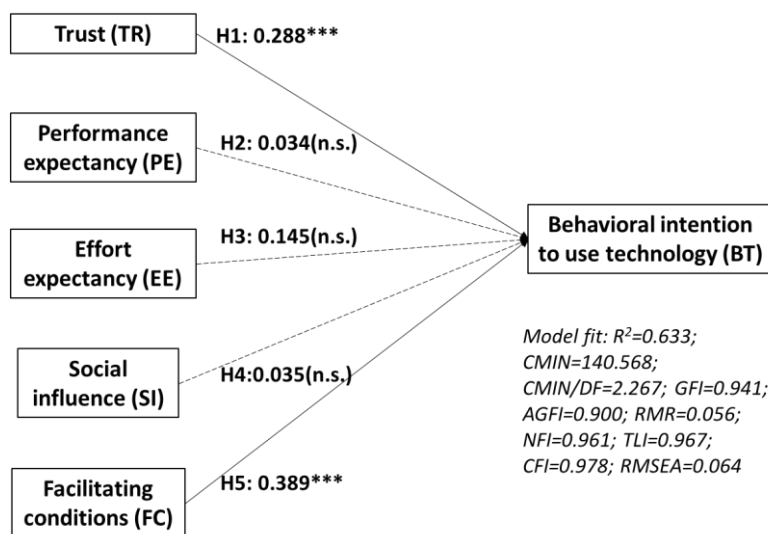
SEM using AMOS 16 statistical software was employed to test this research's proposed hypotheses. After running the necessary analyses and generating the rules-of-thumb figures evaluating model fit, the resulting structural model was deemed viable for both the theoretical and practical interpretations.

Table 4: Summary of hypotheses testing results

	Hypothesis	Std. Estimate	Remarks
H1	<i>Customer trust in online banking positively influences their behavioral intentions to use online banking</i>	0.288***	Supported
H2	<i>Customers' performance expectations on online banking positively influences their behavioral intentions to use online banking</i>	0.034(n.s.)	Not supported
H3	<i>Customers' effort expectations on online banking positively influences their behavioral intentions to use online banking</i>	0.145(n.s.)	Not supported
H4	<i>Customers' views on social influences positively influences their behavioral intentions to use online banking</i>	0.035(n.s.)	Not supported
H5	<i>Customers' views on facilitating conditions on online banking positively influences their behavioral intentions to use online banking</i>	0.389***	Supported

Significance levels: ***= p -value<0.001; **= p -value<0.01; * p -value<0.05; n.s.=not significant
Model fit: $R^2=0.633$; $CMIN=140.568$; $CMIN/DF=2.267$; $GFI=0.941$; $AGFI=0.900$; $RMR=0.056$; $NFI=0.961$;
 $TLI=0.967$; $CFI=0.978$; $RMSEA=0.064$

Figure 2: SEM results



Based on the SEM results, only two of the five hypotheses are supported. The other three exerted statistically weak influence towards the research’s final dependent variable. Of the statistically significant effects, facilitating conditions exert the stronger influence compared to trust. On the other hand, performance expectancy has the weakest influence, followed by social influence, and then by effort expectancy.

5. Conclusions

5.1. Discussions

This research posed two questions to be analyzed and answered. To reiterate, this research focuses on how to improve the overall acceptance and use of online banking services in the Philippines. There is already much headway done as far as online banking is concerned, but banks can obviously do so much more. Under this, the more immediate concern is to entice more Filipinos to get banked, and to get banked online. Each is now discussed below as follows.

RQ1: What factors influence Philippine online banking acceptance and use?

For the case of Philippine online banking, facilitating conditions, especially in terms of gaining the necessary knowledge needed to use a bank’s website or mobile app, stands out as the most influential factor towards online banking acceptance and use. This means that they are looking for effective and efficient ways and means for them to continuously learn how to use their bank’s website or mobile apps for them to make transactions. However, another facilitating condition, the issue on compatibility with different devices, is also very important to them. Curiously, availability of assistance is of least concern.

While the research results show that they are not statistically significant, this does not mean that the other UTAUT factors of performance expectations, effort expectations, and social influence should not be considered. The results do show favorable influences, indicating that it is also a good thing to look into these other factors to further enhance customer acceptance and use of these online banking channels.

In summary, specific considerations regarding facilitating conditions as indicated in this research is an area of strength, and therefore an area for enhancement. On the other hand, specific

considerations on performance expectancy, effort expectancy, and social influence are areas for concern that should not be ignored, and therefore must be perceived as areas for improvement. Overall, the banks are doing quite well as far as customer acceptance and use of their online banking channels are concerned, but they can obviously do much better.

RQ2: What is the role of trust in Philippine online banking acceptance and use?

The research results show that trust, defined as the trustworthiness of the service provider employing website and mobile app technologies, in this case the bank, is an important factor in cultivating the acceptance and use of online banking. Trust enhances the chances that customers will accept and use these online banking services, also echoing what industry experts are advocating. More specifically, customers believe that their bank will do everything to secure the online transactions that they make. This is the most important trust-related consideration that banks should keep in mind if they want their customers to use and continue using their online channels. In line with this, customers also believe that the bank keeps their interests in mind. Hence, any technological developments that the bank does, especially in terms of serving their customers like managing and maintaining websites and mobile apps for banking purposes, are expected to be customer-centric.

5.2. Implications

This research presents a number of suggestions that would aid the banking industry in their efforts to improve the customer utilization of their online banking channels, be it a website, a mobile app, or both.

From the technical perspective, it is recommended that banks focus on improving the interfaces of their respective online banking presences to make it easier for their customers to navigate through the website or the mobile app. It is also recommended that banks look into further improving the functionalities to enhance the customer convenience. For the immediate term, these improvements should aim to (1) enhance the ability of the customers to transact more quickly and more efficiently online, and (2) provide clear and easy to understand directions while using the website or mobile app. In fact, this research echoes what many third-party reviews and expert commentaries have pointed out that are needed to entice more Filipinos to use online banking as far as making it user-friendly, convenient, and accessible is concerned.

What is further interesting in this research is that the effects of social influence proved to be statistically not significant. This means that Filipino online banking customers do not heavily consider the feedback from the people around them when making decisions to go online for their banking needs. At present, they only consider them to a much lesser degree compared to the other considerations as stated in this research. This has some marketing-related implications. One of the biggest of these implications is the promotions strategies on using these websites and mobile apps. Based on the research results, it seems that thinking and rethinking about doing word-of-mouth promotions, through closely-knit customer networks, would work better, rather than spending for online and offline advertisement campaigns. And speaking of marketing strategies and campaigns, banks would also do well to allocate some of these resources in enhancing customer trust. In other words, the website and mobile apps must also reflect and communicate the same degree of trustworthiness that the banks have developed through the years via their offline services. In addition, another part of these marketing strategies and campaigns must be geared towards providing more and better information and instructions to make customers better educated and better equipped in the use of online banking channels. Making them confident and well-informed

about the use of these online banking channels would go a long way for their continued acceptance and use.

5.3. Limitations and directions for future research

Aside from the factors discussed in this research, there are many others that can and should be considered in the discourse of what drives people to use such technologies for their banking needs. This includes perceptions and attitudes on privacy and security, feelings of enjoyment and anxiety, and the need to be “in”, among others. Future research can deal with these other factors and determine which ones truly influence behavioral intentions to use online banking.

Also, this research recognizes that the entire technological infrastructure required to ensure very favorable performance and delivery of services are not entirely under the banks’ control. The online banking landscape, and even the entire e-commerce landscape, is an ecosystem comprised of multiple players. Therefore, other external factors such as technology integrity and reliability provided by other companies such as the telecommunications providers and the electronic device manufacturers should also be taken into account in future research when evaluating customer feedback regarding the banks’ online presences.

Lastly, even though the banking industry is one of the biggest players in offering financial products and services, there are many others that should also be subjected to this type of research. This is mainly because of the bigger phenomenon of fintech. The emergence of fintech is gradually redefining the way normal individuals are accessing and patronizing financial products and services. Therefore, one of the more obvious directions for future research is to apply an approach similar to this present discourse to digital payment channels, such as GCash, PayMaya, Alipay, GrabPay, Apple Pay, Samsung Pay, and others, which can facilitate an entire spectrum from large to micro transactions. Later on, other theoretical foundations prominent in the IS field of research can also be employed to further examine such growing phenomenon. This is an important consideration if both academia and industry want to make the development and application these technologies sustainable.

References

- ABS-CBN News. (2016). Online banking threats rising in Philippines: Study. *ABS-CBN News*.
<https://news.abs-cbn.com/business/07/02/16/online-banking-threats-rising-in-philippines-study>
- Baabdullah, A. M., Alalwan, A. A., Rana, N. P., Hatice Kizgin, & Patil, P. (2019). Consumer use of mobile banking (M-Banking) in Saudi Arabia: Towards an integrated model. *International Journal of Information Management*, 44(1), 38-52.
- Chipongian, L. C. (2020). BSP to issue digital banking rules this month. *Manila Bulletin*.
<https://mb.com.ph/2020/11/23/bsp-to-issue-digital-banking-rules-this-month/>
- de Jesus, M. (2019). 10 online services to try for a cashless existence. *spot.ph*.
<https://www.spot.ph/newsfeatures/the-latest-news-features/79881/online-bank-wallet-services-guide-philippines-a4362-20191125-lfrm2>
- Depusoy, J. L., Romuar, F. B., & Nartea, M. A. (2020). e-banking facility services in the Philippines. *International Journal of Disaster Recovery and Business Continuity*, 11(2), 166-178.
- Diokno, B. E. (2020). *Philippine banking system - forging path towards sustainable economic recovery* IBC Business Webinar Series. <https://www.bis.org/review/r201005c.htm>
- Dumlao-Abadilla, D. (2020). Security Bank reports surge in online banking transactions. *Philippine Daily Inquirer*. <https://business.inquirer.net/307252/security-bank-reports-surge-in-online-banking-transactions>

- Lim, E. C. (2013). Adoption of online banking in Manila: What the commercial banks should learn to be competitive. *International Journal of Information Technology and Business Management*, 10(1), 1-7.
- Lopez, M. L. (2020a). E-wallets drive surge in deposit accounts, but over 51M Filipinos still unbanked – BSP. *CNN Philippines*. <https://cnnphilippines.com/business/2020/7/16/e-wallets-surge-in-accounts-majority-unbanked.html>
- Lopez, M. L. (2020b). ING Bank maps out PH retail expansion with e-payment, debit cards rollout. *CNN Philippines*. <https://www.cnn.ph/business/2020/11/24/ING-Bank-Philippines-virtual-physical-debit-card.html>
- Lopez, M. L. (2020c). Online bank transfers up 25%, ATM transactions down amid pandemic – BSP. *CNN Philippines*. <https://cnnphilippines.com/business/2020/5/7/online-bank-transfers-up-coronavirus.html?fbclid=IwAR2pla2s15yQAqpEoEgIYgaxWWIUUGNG9oCLDcH6Y17su1MJWg085z7U8-pY>
- Lucas, D. L. (2019). BSP eases rules on e-banking services. *Philippine Daily Inquirer*. <https://business.inquirer.net/265540/bsp-eases-rules-on-e-banking-services>
- Manila Standard. (2020). How banks and financial institutions can ‘get the edge’ with technology. *Manila Standard*. <https://manilastandard.net/tech/tech-news/340437/how-banks-and-financial-institutions-can-get-the-edge-with-technology.html>
- McKnight, D. H., & Chervany, N. L. (2001). What trust means in e-commerce customer relationships: An interdisciplinary conceptual typology. *International Journal of Electronic Commerce*, 6(2), 35-59. <https://doi.org/https://doi.org/10.1080/10864415.2001.11044235>
- McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). The impact of initial consumer trust on intentions to transact with a web site: A trust building model. *The Journal of Strategic Information Systems*, 11(3-4), 297-323. [https://doi.org/https://doi.org/10.1016/S0963-8687\(02\)00020-3](https://doi.org/https://doi.org/10.1016/S0963-8687(02)00020-3)
- Mendoza, M. C. O., Santos, R. R. C., & Magdaraog, J. E. H. (2020). Assessment of e-service quality dimensions and its influence on customer satisfaction: A study on the online banking services in the Philippines. 2020 IEEE 7th International Conference on Industrial Engineering and Applications, Bangkok, Thailand.
- Morales, D. T., & Trinidad, F. L. (2019a). Digital mortgage banking acceptability in Philippine universal banks: Evidence from UTAUT model. *Journal of Information Systems and Technology Management*, 4(15), 1-15.
- Morales, D. T., & Trinidad, F. L. (2019b). Digitization of mortgage banking among selected universal banks in the Philippines: Towards a model of acceptance of digital mortgage service. *Review of Integrative Business & Economics*, 8(4), 401-411.
- Morales, D. T., & Trinidad, F. L. (2019c). Predictors of acceptability of digital mortgage services of universal banks in the Philippines: An empirical study. *International Journal of Modern Trends in Business Research*, 2(8), 79-92.
- Newsbytes.PH. (2020). Landbank posts record use of e-banking channels in March. *Newsbytes.PH*. <https://newsbytes.ph/2020/04/28/landbank-posts-record-use-of-e-banking-channels-in-march/>
- Noble, L. W. T. (2020). Filipinos shift to e-payments, online banking amid lockdown. *BusinessWorld*. <https://www.bworldonline.com/filipinos-shift-to-e-payments-online-banking-amid-lockdown/>
- Piad, T. J. C. (2020). Dutch bank’s PHL office launches digital pay solution. *BusinessMirror*. <https://businessmirror.com.ph/2020/11/24/dutch-banks-phl-office-launches-digital-pay-solution/>
- Publico, R. (2019). Online banking in the Philippines: The benefits of going cashless. *MoneyMax*. <https://www.moneymax.ph/personal-finance/articles/online-banking-pros-cons>
- Quilantang, J. J. (2016). Characterizing of internet banking users in Davao City, Philippines. *University of Mindanao International Multidisciplinary Research Journal*, 1(1), 40-47.

- Slade, E. L., Dwivedi, Y. K., Piercy, N. C., & Williams, M. D. (2015). Modeling consumers' adoption intentions of remote mobile payments in the United Kingdom: Extending UTAUT with innovativeness, risk, and trust. *Psychology & Marketing, 32*(8), 860-873.
- Talavera, M. G. V. (2020). Measuring service quality in Philippine banks: An exploratory study using SERVQUAL and Q-Methodology. *Philippine Management Review, 27*(1), 37-56.
- Tarhini, A., El-Masri, M., Ali, M., & Serrano, A. (2016). Extending the UTAUT model to understand the customers' acceptance and use of Internet banking in Lebanon: A structural equation modeling approach. *Information Technology & People, 29*(4), 830-849.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425-478.
- Venkatesh, V., Thong, J. Y. L., Chan, F. K. Y., Hu, P. J. H., & Brown, S. A. (2011). Extending the two-stage information systems continuance model: Incorporating UTAUT predictors and the role of context. *Information Systems Journal, 21*(6), 527-555.