



Telebanking Adoption Intentions, Actions and Subjective Norms in the Context of Sri Lankan Private Commercial Banks

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Abstract – Telebanking is a service provided by a bank or other financial institution, that enables customers to perform an array of financial transactions over the telephone. Telebanking offers convenience for customers while facilitating upliftment of customer service standards from the perspective of banks. Meanwhile, subjective norms refer to an individual's perception about the particular behaviour, which is influenced by the judgment of significant others. Similarly, adoption of innovative technologies, is driven by subjective norms, ease of use, behavioural intentions, among other factors. Effect of subjective norms on telebanking adoption intentions and actions, in the context of Sri Lankan private banks is being examined in this study. Respondents were the telebanking facility using students of Uwa Wellassa University. Finally, 279 duly completed questionnaires were considered for the data analysis. Theory of reasoned action used to postulate conceptual framework and dimensions of the variables were measured by five-point Likert scale. Tests statistics of MANOVA, ANOVA with contrast tests and discriminant function analysis were used. Empirical evidence supported the significance of subjective norms towards intentions and actions on adoption of telebanking, specifying the importance of subjective norm of the friends, in particular. There were restrictions due to limitation of time and other resources and hence, future researches could be performed in different contexts with improved representation of the tele banking population of private commercial banks. Nevertheless, research findings could be used to uplift the status of self-service banking technologies promoted by commercial banks in Sri Lanka although the research has been conducted with special reference to telebanking since most of such services provides almost the similar facilities with different interfaces such as ATMs, telephones, smartphones, personal computers, tabs etc. As the results has emphasized the significance of the effect of subjective norms, commercial banks could make use of social pressure by way of focusing on influencing existing customers towards making referrals to their friends, family members and relations to canvass new customers for mutually rewarding long-term relationship. Finally, practical and theoretical contribution could be recognized by referring to research method and analysis tools given the particular context of the research.

Keywords – Commercial Banks, Online Banking, Sri Lanka, Subjective Norms, Telebanking

INTRODUCTION

Despite the possession of more than two thirds of total assets of the financial sector, profitability of the banking sector has declined as a result of escalation of operating costs amidst other contributory factors. Nevertheless, service sector economic activities during the year was essentially backed by the progression of financial services activities in conjunction with the expansions of both wholesale and retail trade activities in spite of significant macro-economic setbacks along with critical market conditions (CBSL, 2018). In this context, technology transformations have contributed towards easing of financial transactions with fintech developments which offers convenience and time saving for bank customers while improving cost efficiency to

optimize resource utilization that will affect profitability of banks significantly. Process of transmitting encrypted data over telecommunications networks to a remote location for verification was a precursor to tele banking (Leech et al., 2019).

Telebanking is a service provided by a bank or other financial institution, that enables customers to perform an array of financial transactions over the telephone, without involving cash or financial instruments (such as cheques), avoiding the need to visit a bank branch or ATM (Nayanajith et al., 2019d & 2019e; Obeng & Mkhize, 2017; Shaikh & Karjaluo, 2016; Wyslocka et al., 2017). Similarly, subjective norm could be defined as an individual's perception about the particular behaviour, which is influenced by the



judgment of significant others such as parents, spouse, friends, teachers and etc. (Chung & Rimal, 2016; Ozturk et al., 2016; Alalwan et al., 2016). Several researchers investigated the factors influencing customers' intention and adoption of telebanking upon integrating perceived risk with the extended Unified Theory of Acceptance and Use of Technology. The results demonstrated that behavioral intention towards adoption is significantly influenced by performance expectancy, hedonic motivation, price, value, and perceived risk and social pressure (Alalwan et al., 2016). Intentions towards a particular behaviour could be predicted by attitudes towards the behaviour, subjective norms and perception of behavioral control (Albarracin & Ajzen, 2007). Subjective norms are found to be one of the factors affecting individual's intention to use mobile/telebanking services (Bagadia & Bansal, 2016). Studies on information-systems constructs related to telebanking and online banking, have found that subjective norms or social influence as a determinant of adoption of such technologies (Nayanajith & Damunupola, 2019b).

Telephone banking became commercially available in the 1980s, which was first introduced by Girobank in the United Kingdom, by establishing a dedicated telephone banking service in 1984 (Iberahim et al., 2016; Oliveira & Hippel, 2011). Amongst the self-service technology applications that are widely adopted in the banking industry, telebanking has been increasing as an integral banking service amidst internet banking, ATM operations, and mobile banking services (Alalwan et al., 2016; El Aziz et al., 2014). This acceleration in telebanking technology worldwide could be attributed to a technological breakthrough in mobile and telecommunication technology, as well as the availability of technical infrastructures necessary to successfully implement the particular technology (Laukkanen & Cruz, 2009; Wessels & Drennan, 2010). Another motivator behind telebanking innovation is concerned with the ability of this technology to provide customers with a higher service quality, friendly and cost-effective service with innovation from the perspective of customers (Wang et al., 2006). The IVR instrument is different (which is being used for telebanking) from operator assisted banking service. This mode of telebanking is a cost-effective self-service banking channel that assists customers to execute non-financial and financial transactions in their own (e.g., balance enquiry, paying bills, fund transfers, exchange rate inquiries) by way of calling the automated call center

in the bank (Dawson, 2007; Wolf, 2019). This study encompasses the electronic type of telephone banking (IVR) as a self-service banking delivery channel attributed with novelty and innovativeness in the context of Sri Lanka.

In contrast to agent banking, point of sales operation (POS) or social network banking, telebanking offers customers a wide array of transactions including both financial and non-financial transactions. Telebanking services have now been extended in view of uplifting the customer service standards which signifies the strategic importance of this specific banking service. Telebanking services nowadays offer facilities to obtain current exchange and interest rates, Execution of MasterCard / Visa card payment, Order new cheque books, inquiry of balance, Transfer of funds, Transfer funds to predefined accounts in other banks, Obtain account statement by fax or mail, Stop payment of a cheques, Inquire into the status of a cheques, Utility bill payments, Activation of debit cards, Mobile Cash transactions, Card-less Cash transactions, with a view to offer utmost convenience to customers. Similarly, banks are benefitted from managing operational expenses effectively by curtailing transaction costs in the long run alongside upgrading service quality together with greater convenience to customers as a means of securing the competitive advantage (Alalwan et al., 2016; Omotoso et al., 2012). Similarly, telebanking services offer higher ease of use, greater time saving despite lower subscription fees levied for this service (Shaikh & Karjaluto, 2015). At the same time telebanking delivers secured service as the customers are given away with personal identification numbers (PIN) while ensuring changing of same according to the wish of the customers upon proper authentication. Meanwhile telebanking could be used to uplift the unbanked and underbanked segment of the society as this does not require higher technology or computer efficacy aspects unlike internet banking facilities highlighting the societal and economic aspect of popularizing this service among the masses with a view to achieve greater financial inclusion (Alalwan, et al., 2016; Wei et al., 2013).

Subjective norms are also one of the key determinants of behavioral intention and refer to the way perceptions of relevant groups or individuals such as family members, friends, and peers may affect one's performance of the behavior. Ajzen defines subjective norms as the "perceived social pressure to perform or not

perform the behavior" (Albarracin & Ajzen, 2007). According to TRA, people develop certain beliefs or normative beliefs as to whether or not certain behaviors are acceptable. These beliefs shape one's perception of the behavior and determine one's intention to perform or not perform the behavior. For example, if one believes that recreational drug use (the behavior) is acceptable within one's social group, one will more likely be willing to engage in the activity. Alternatively, if one's friends groups perceive that the behavior is bad, one will be less likely to engage in recreational drug use. However, subjective norms also take into account people's motivation to comply with their social circle's views and perceptions, which vary depending on the situation and the individual's motivations (Nayanajith & Damunupola, 2019b). Normative beliefs touch on whether or not referent relevant groups approve of the action. There exists a direct correlation between normative beliefs and performance of the behavior. Usually, the more likely the referent groups will approve of the action, the more likely the individual perform the act. Conversely, the less likely the referent groups will approve of the action, the less likely the individual will perform the act. Motivation to comply addresses the fact that individuals may or may not comply with social norms of the referent groups surrounding the act. Depending on the individual's motivations in terms of adhering to social pressures, the individual will either succumb to the social pressures of performing the act if it is deemed acceptable, or alternatively will refuse if seemed unacceptable.

Although prominent licensed commercial banks boast of achieving higher level of electronic banking growth which includes telebanking services, in practical scenario usage of electronic banking, telebanking, debit and credit card usage for online payments are not at a higher level (Hootesuite, 2019; Sampath Bank, 2019; Commercial Bank, 2019; HNB, 2019). Similarly, effect of subjective norms towards adoption of new technology is contextual (Manning, 2009; Nayanajith & Damunupola., 2019a). Hence, depending on the country and social contexts, finding of the studies prone to change. Therefore, this research study examines the effect of subjective norms influenced by different pressure groups towards telebanking adoptions intentions and actions in Sri Lankan private banking context using a multivariate analysis in addressing practice and methodological gaps.

OBJECTIVES OF THE STUDY

Primarily, postulated to identify the significance of subjective norm (SN) towards user intentions and actions on adoption of telebanking (AoTB). Secondly, it was determined to examine the differences or similarities in between three SN groups viz. SN-friends (SNFR), SN-family (SNFA) and control group with no subjective norms (CTRL) towards intentions and actions on AoTB.

MATERIALS AND METHODS

According to ontological and epistemological directions, deductive methodology and quantitative method have been followed (Nayanajith, 2019; Nayanajith & Damunupola, 2019a). Students of Uwa Wellassa University (UWU) those who are using telebanking facilities of private commercial banks were selected as the respondents. Respondents were selected on random sampling method as per registration numbers. Although initially 400 questionnaires were distributed only 279 duly completed questionnaires were considered for the final data analysis.

Conceptual Framework

Theory of reasoned action (TRA) has been derived with the findings of the previous researches in the fields of social-psychology, persuasion models and attitude related theories (Fishbein, 1967; Fishbein & Ajzen, 1975). TRA is being used to explain the user behavior in different scenarios such as health behavior and consumer behavior explanations in different fields (Albarracin & Ajzen, 2007; Safeena, Kammani & Date, 2018). Alongside some modifications to TRA, the concept of theory of planned behaviour was proposed by Icek Ajzen to improve on the predictive power of the TRA by including perceived behavioural control (Ajzen, 1991). However, there are claims that the theory of planned behaviour is based on cognitive processing and criticized the theory on those grounds and TPB ignores one's needs prior to engaging in a certain action/s. Nevertheless, TPB has been used in examining the health-related behaviours, sports related behavioral actions (Sheeran & Taylor, 1999; Sussman & Giffors, 2019).

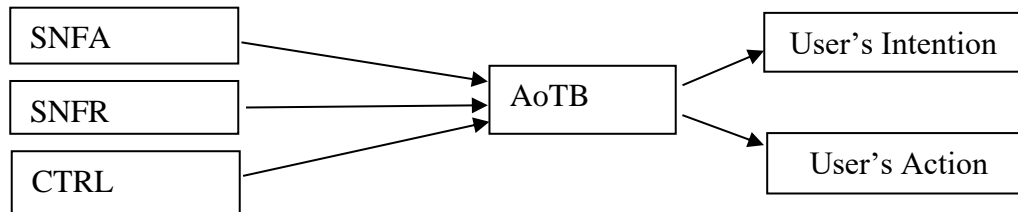
Another theory named as Diffusion of innovations (DOI) seeks to explain how, why and at what rate new ideas and technology spread. DOI argues that diffusion is the process by which an innovation is

communicated over time among the participants in a social system. The origins of the diffusion of innovations theory are varied and span multiple disciplines (Rogers, 1962). Rogers proposes that four main elements influence the spread of a new idea: the innovation itself, communication channels, time, and a social system. This process relies heavily on human capital. Innovation must be widely adopted in order to self-sustain. Within the rate of adoption, there is a point at which an innovation reaches critical mass. However, there is criticism such as diffusion is the process of the market penetration of new products and services that is driven by social influences (Meseguer, 2005). Another researcher argued that technology is information, and exists only to the degree that people can put it into practice and use it to achieve values (Peres et al., 2010).

As against the TPB and DOI, TRA is being used in communication discourse as a theory of understanding (Gillmore et al., 2002). The primary purpose of the TRA is to understand an individual's voluntary behavior by

examining the underlying basic motivation to perform an action (Doswell et al., 2011). TRA states that a person's intention to perform a behavior is the main predictor of whether or not they actually perform that behavior (Montano & Kasprzyk, 2015). Additionally, the normative component (social norms) also contributes to whether or not the person will actually perform the behavior. According to the theory, intention to perform a certain behavior precedes the actual behavior (Ajzen & Madden, 1986). This intention is known as behavioral intention and comes as a result of a belief that performing the behavior will lead to a specific outcome. Behavioral intention is important to the theory because these intentions "are determined by attitudes to behaviors and subjective norms" (Colman, 2015). TRA suggests that stronger intentions lead to increased effort to perform the behavior, which also increases the likelihood for the behavior to be performed. Similarly, TRA is parsimonious in explaining adoption of technology when there are effects of subjective norms (Plouffe, 2001). Accordingly, following conceptual model was proposed.

Figure 1: Conceptual model



Hypotheses

Empirical evidences noted that subjective norms have a significant impact on intention to use online banking (Nayanajith & Damunupola, 2019b & 2019c). SN have been discussed in tele-banking and online banking contexts (Sundarraaj & Wu, 2005). Another research on understanding the antecedents of intention to use mobile internet banking in India, also has discussed significance of subjective norms (Bryson et al., 2015). Importance of SN in relation to acceptance of telebanking has been identified in several researchers in different country perspectives (Alalwan et al., 2016; Brown et al., 2003; Bryson et al., 2015). Another study in examining the effect of subjective norms and compatibility as external variables on TAM: mobile

banking acceptance in Yemen, identified that SN affect users' intention via perceived usefulness and perceived ease of use factors (Mutahar et al., 2017). A conceptual model for mobile banking adoption has depicted the importance of SN in accepting mobile bank technology (Illia, Ngriatedema & Huang, 2015). As per the above-mentioned facts following hypotheses were proposed,

H₁- SN significantly affect intentions and actions on AoTB

Recommendations of friends have been significant in electronic banking adoption and customer satisfactions as identified by the researchers in Turkey and Kenya (Özer & Gürel, 2017; Simon & Thomas, 2016). Influence of both

family and friends plays a major role in adopting various banking products and banks as noted in the results of research studies (Tucker & Jubb, 2018; Ozatac et al., 2016). Hence, following hypothesis is formulated,

H₁₂- There are significant differences in SN influenced by friends, as against family

RESULTS AND DISCUSSION

Personal and social characteristics of the population is mostly replicated by the designated sample of the research study and the data analysis proceeded with SPSS package to address the research questions.

According to descriptive statistics (Table 1), it was noted by the means that respondents had comparatively more telebanking adoption related intentions, than adoption actions.

Table 1-Descriptive Statistics

	SN	Mean	Std. Deviation	N
Action	Family	3.2860	.27715	81
	Friends	3.9483	.62791	141
	No SN	3.6849	.58498	57
	Total	3.7022	.60896	279
Intention	Family	3.9679	.60432	81
	Friends	4.5220	.43311	141
	No SN	4.1035	.46559	57
	Total	4.2756	.55469	279

Table 2 demonstrates that, Pillai's trace ($p < .05$), Wilks's lambda ($p < .05$), Hotelling's trace ($p < .05$) and Roy's largest root ($p < .05$), all statistics are significance at .05 significance. In accordance with the results it could be noted that the type of SN had a significant effect on the adoption of telebanking. The nature of the effect is not clear from the multivariate test statistic. First, the

results show nothing about which groups differed from which, and secondly it states nothing about whether the effect of SN was on the AoTB-related thoughts, the AoTB-related behaviors, or a combination (Nayanajith et al., 2019a). In order to determine the nature of the effect, univariate tests will be referred.

Table 2-Multivariate Statistics

Effect	Value	F	Hypothesis df	Error df	Sig.	
Intercept	Pillai's Trace	.985	8778.717 ^b	2.000	275.000	.000
	Wilks' Lambda	.015	8778.717 ^b	2.000	275.000	.000
	Hotelling's Trace	63.845	8778.717 ^b	2.000	275.000	.000
	Roy's Largest Root	63.845	8778.717 ^b	2.000	275.000	.000
SN	Pillai's Trace	.285	22.924	4.000	552.000	.000
	Wilks' Lambda	.727	23.769 ^b	4.000	550.000	.000
	Hotelling's Trace	.359	24.613	4.000	548.000	.000

Roy's Largest Root .306 42.237^c 2.000 276.000 .000

According to Table 3, values of *p* indicate that there is a significant difference between SN groups in terms of both AoTB-related thoughts (*p* < .05) and AoTB-related actions (*p* < .05). These two results lead to conclude that the type of SN has had

a significant effect on the levels of AoTB experienced by respondents. Hence both multivariate and univariate test statistics were significant on AoTB,

Table 3-Univariate Statistics for dependent variables

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Action	22.586 ^a	2	11.293	38.716	.000
	Intention	17.917 ^b	2	8.958	36.566	.000
Intercept	Action	3224.016	1	3224.016	11052.972	.000
	Intention	4288.431	1	4288.431	17504.398	.000
SN	Action	22.586	2	11.293	38.716	.000
	Intention	17.917	2	8.958	36.566	.000
Error	Action	80.506	276	.292		
	Intention	67.618	276	.245		
Total	Action	3927.167	279			
	Intention	5185.930	279			
Corrected Total	Action	103.092	278			
	Intention	85.534	278			

As the univariate ANOVAs were significant, it is possible to interpret the contrasts shown in table 4. These contrasts represent SNFA vs. CTRL and SNFR vs. CTRL, respectively. When it compares SNFR to CTRL there are significant differences in intentions (*p* = .000) or actions (*p* = .002) because

both values are below the .05 threshold. Nevertheless, comparing SNFA to CTRL, there is no significant difference in thoughts (*p* = .114) but there is a significant difference in behaviors between the groups (*p* = .000).

Table 4-Contrast Results (K Matrix)

SN Simple Contrast ^a		Dependent Variable	
		Action	Intention
Level 1 vs. Level 3	Contrast Estimate	-.399	-.136
	Hypothesized Value	0	0
	Difference (Estimate - Hypothesized)	-.399	-.136
	Std. Error	.093	.086
	Sig.	.000	.114
	Lower Bound	-.583	-.304

	95% Confidence Interval for Difference	Upper Bound	-.215	.033
	Contrast Estimate		.263	.418
	Hypothesized Value		0	0
	Difference (Estimate - Hypothesized)		.263	.418
Level 2 vs. Level 3	Std. Error		.085	.078
	Sig.		.002	.000
	95% Confidence Interval for Difference	Lower Bound	.096	.266
		Upper Bound	.430	.571

a. Reference category = 3

Similarly, MANOVA was followed by a discriminant function analysis. Results shown that, in all three groups intentions and actions are positively related, so as the number of intentions decreases, so does the number of actions, for the reason that, the covariance is positive. However, these figures don't illustrate about the substantive importance of the relationships because they are unstandardized and merely give only a basic indication.

Table 5 displays the initial statistics from the discriminant analysis. At first, shows the eigenvalues for each variate. These eigenvalues are converted into percentage of variance accounted for, and the first variate accounts for 85.2% of variance compared to the second variate, which accounts for only 14.8%. This the canonical correlation shown in the table, could square to use as an effect size.

Table 5-Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.306 ^a	85.2	85.2	.484
2	.053 ^a	14.8	100.0	.225

a. First 2 canonical discriminant functions were used in the analysis.

Table 6 shows the significance tests of the variates and point to note from this table is that the two variates significantly discriminate the groups in combination ($p < .05$), and also the second variate alone is also significant, ($p < .05$). Consequently, the

group differences shown by the MANOVA can be explained in terms of two underlying dimensions in combination and individually by second one, as well.

Table 6-Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 2	.727	87.857	4	.000
2	.949	14.293	1	.000

In conclusion, the relationships between the dependent variables and the group means of the

original data shows that SNFR increases both the intentions and actions towards AoTB. It was



discovered from the discriminant analysis that SNFR and SNFA can be differentiated from the control group based on variate 2 and that SNFR is

better than SNFA and no-treatment groups at increasing intentions and actions related to AoTB.

CONCLUSION AND RECOMMENDATION

Results have shown that all the multivariate tests statistics were significant; hence, the groups differ significantly with respect to the dependent variables. Since both the univariate and multivariate statistics are significant, it indicates that there is a significant difference between SN groups in terms of both AoTB-related thoughts/intentions and AoTB-related actions. These two results lead to conclude that the type of SN has had a significant effect on the levels of AoTB experienced by respondents, supporting the first hypothesis. Contrasts (K Matrix) represent SNFA vs. CTRL and SNFR vs. CTRL, respectively. When it compares SNFR to CTRL there are significant differences in both the intentions and actions as indicated by p values. Nevertheless, comparing SNFA to CTRL, there is a significant difference in behaviors between the groups in support of the second hypothesis of the study. Subsequently, conducted a discriminant function analysis (DFA) for further analyses. Results initially shown that, in all three groups intentions and actions are positively related, so as the number of intentions increases, so does the number of actions, due to positive covariance. DFA identified two variates and both the two variates were significant as per Wilks's Lambda. Thereafter, standardized canonical discriminant function coefficients were used to find out how the dependent variables contribute to the variates. In summary, it could be noted that subjective norms are significantly affect AoTB by way of adoption related intentions and actions. Further, the relationships between the dependent variables and the group means of the original data shows that SNFR increases both the intentions and actions towards AoTB. It was discovered from the discriminant analysis that SNFR and SNFA can be differentiated from the control group based on variate 2 and that SNFR is better than both SNFA and no-treatment groups at increasing intentions and

actions related to AoTB. Hence, it was observed that both the hypotheses were supported by the empirical evidences of the study.

Regardless of the rapid growth of social media and online communities, people build around shared interests, word of mouth and influence related others towards particular actions or behaviours. The main influencers are family and friends, especially when it matters most. Individuals still mainly talk to each other about products, services, behaviours and experiences in 'real-life' and in person although this does not mean that opinions on social networks, online peer reviews, blogs and all the other 'social' digital media have no impact. Moreover, the opinions and advice of friends, relatives and acquaintances have a more significant impact on consumer behaviours at large, similar to the recommendations of 'online' sources. In conclusion, it could be noted that the test statistics of MANOVA indicated that subjective norms possess a significant effect on adoption of telebanking and the significant univariate ANOVAs suggested that this may be in terms of either a combination or individual intentions or actions. According to results it was noted that SNFR is better at changing both actions and intentions on adoption of telebanking. Hence, noted that both the hypotheses have been supported by the empirical evidence of the study. Research findings could be used to uplift the status of self-service banking technologies (SSBT) promoted by commercial banks in Sri Lanka although the research has been conducted with special reference to telebanking since most of SSBT provides almost the similar facilities with different interfaces such as ATMs, telephones, smartphones, personal computers, tabs etc. As the results has emphasized the significance of the effect of subjective norms, commercial banks could make use of social pressure by way of



focusing on influencing existing customers towards making referrals to their friends, family members and relations to canvass new customers for mutually rewarding long term relationship together with enhanced income, profitability and performance indicators from the perspective of banking institutions. Respondents of the study were the students with telebanking attached to the UWU which is a limitation for generalization of the results

of the present study. In the same way, as there were restrictions due to time and other resources, future researches could be performed in different contexts with improved representation of the telebanking population of private commercial banks (Nayanajith et al., 2019a & 2019b). Practical and theoretical contribution could be recognized by referring to the particular analysis tools given the particular context and objectives of the present research.

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