

## **Factors Affecting Internet Banking Usage Behaviour of Urban Youth in Kandy Factors Affecting**

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### **Abstract**

After the internet revolution, commercial banks in Sri Lanka introduced online banking services in 1998 for their customers. Now both private and state banks provide a greater service through internet banking facilities. Internet banking has been evolved very recently and it has a problem of usage and adaption to it by customers. Even though various strategies were used by financial institutions to promote internet banking with the hope of increasing the number of usages, internet banking is facing a situation of lack of usage. Therefore, the main objective of the study is to identify the factors affecting internet banking usage behaviour of the young customers in Kandy urban area. As population, youth in Kandy urban area was taken. A structured questionnaire with five-point Likert scale was used to collect data. The independent variables are self-efficacy, perceived risk, social influence, attitude towards the use of internet banking usage and the dependent variable was internet banking behaviour. Descriptive and inferential statistics were used in the data analysis with multiple regression model under 0.05 significance level. The result revealed that perceived risk and social influence were statistically significant in 95 percent confident level having a positive relationship with internet banking behaviour. Commercial banks need to upgrade the internet banking services and should initiate strategies in such a way that it changes customers' attitudes and improves customers' self-efficacy towards using internet banking services while lowering risk involved with internet banking services to make it more advantageous.

**Keywords:** Internet banking, Banking usage behaviour, youth

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## 1. Introduction

The mass internet revolution has rapidly grown within the last decades (Fernando, 2016). With the development of the internet facilities, it gives human the ability to initiate a task by using a mouse pointer. Internet banking services is one of the tasks is becoming popular with the internet revolution. In 1998, commercial banks in Sri Lanka introduced online banking services and only five of the local banks offered online banking facility for the customers(Fernando, 2016). Initially, they offered only transactional level to local customers. After few years state banks also began to offer online banking services. By now both state banks and private banks are offering online banking services in a wider range such as online banking, mobile banking, e-statements, bill payments services in order to provide convenient ways for customers to access bank services & facilities (Fernando, 2016). Hence, it seems internet banking services are becoming popular among the Sri Lankan community while many people have not begun to use internet banking services yet. But by now there is a trend of using internet banking services among people. For internet banking services, the internet provides a vast opportunity and most of the financial institutions (banks) promote internet banking services specially among the youth generation who is actively connected with the internet.

This paper focuses on the youth market and the success of a financial institute depends on segmenting the customers and developing its promotion campaigns to reach the youth segment. According to United Nations (2007), persons between 15 to 24 are considered as youth. In Sri Lanka, age group of 18-30 is the main category that uses internet banking is used mostly (Perera, 2013).The segmentation in the financial sector is vital in this way. Specially, bank customers are segmented under demography which is a popular segmenting basis in banking sector because considering the age of the customer is easier than the other ways. Financial institutes have introduced number of products and services based on age segmentation. The traditional segmenting ways are not sufficient for the prediction of the future as the technology grows rapidly. For banking services four core customer segments are available at the branch segment, the telephone segment, the PC segment and the internet segment (Mols et al, 1999). With the development of internet services, many financial institutions will engage in retail banking while all others are relying on the internet banking services (Jayawardhena and Foley, 2000). McDougall and Levesque (1994) confirmed younger customers belong to convenience segment such as internet segment (Katz and Aspden, 1997). According to Syed Abdul Mannan (2010), it was identified that 95.9% respondents have given positive response and 4.1% have given the negative response about internet banking provided by the banks in his study done with the Indian customers. The study also identified that 92.1% of the respondents agreed that the electronic services were more convenient and suitable in present life while 7.9%of respondents disagreed about

electronic services. Therefore, this paper specially explores the factors that affect internet banking usage considering self-efficacy, perceived risk, social influence, perceived ease of use, perceived usefulness, attitudes and behavioural intention which were derived through empirical evidence.

### **1.1. Research Problem**

Banking system in Sri Lanka always updates their services with introducing new facilities. However, as a developing country, when commercial banks introduce online banking for the customers, they had to face a lot of problems and risks such as traditional attitudes towards the banking system, lack of technology and skills, competition with foreign banks which are registered in Sri Lanka etc. Deregulation has led to a greater degree of competition. With the development of the internet services and computers usage, the electronic delivery of banking services has increased considerably (Fernando, 2016). Financial institutes have initiated the promotion of internet banking services. But the number of Sri Lankans connected to online is considerably small as compared to other nations across the globe (Wijesiriwardana, 2003). According to Suraweera (2011), it was identified that internet banking users were only less than 1% in Sri Lanka. Furthermore, between the age of 15 – 34, literacy rate was high compared to other age categories (Dept. of census and statistics, 2017). In general, it can be identified that internet banking usage is less compared to literacy rate of youth. Hence, this research attempts to identify factors affecting the internet banking usage among youth customers by focusing on Kandy urban area in Sri Lanka.

### **1.2. Research Objectives**

The main objective of the study is to identify the factors affecting internet banking usage behaviour of the young customers in Kandy urban area as well as to investigate internet banking usage in this area.

## **2. Literature Review**

### **2.1. Theoretical Background**

Identifying consumer behaviour is vital and many theoretical models were built in accordance with empirical evidence. In this way, the study focused on Kandy urban youth, due to Large increases in IT literacy and rapid increases in internet distribution in Kandy district, 2017 (Dept. of Census and Statistics-Sri Lanka, 2017). This article followed the Theory of Reasoned Action (TRA) and the Technology Acceptance Model (TAM) to develop and illustrate internet banking usage behaviour of youth in Kandy district. The theory of Reasoned Action is an

important concept where the consumer behaviour or consumer attitude is measured. Consumer attitude has been defined as a person's overall evaluation of a concept (Peter et al., 1999.). This assumes that when the overall evaluation of a consumer towards a product is positive, that person is more likely to buy or use the product. The Theory of Reasoned Action has been developed to explain how a consumer tends to adopt a certain buying behaviour. Technology Acceptance Model specially explains one's use of information technology, and the purpose of the theory is to explicate the determinants of computer acceptance and user behaviour within a broad range of new technologies (Davis and Venkatesh, 1996). In this study, these two theories are important to analyse one's acceptance of internet banking services and to investigate the overall evaluation towards internet banking usage. Hence, these two topics are used to predict users' acceptance of new technology.

## **2.2. Empirical Background**

Internet banking is an emerging situation in the current context and banking sectors organizations are giving their better facilities for their customer through it. But the problematic behaviour that was found by various research studies is that adaptation and the usage of those facilities is low even though banking sector organizations have introduced the internet banking for their customers. Internet banking users expect to conduct their banking activities at any time anywhere (Perera, 2013). However, there is a slowly increasing growth of using internet banking at present in Sri Lanka (Fernando, 2016). Similarly, the dark side of internet banking in Sri Lanka is that only a small fraction of banking population has shown interest in using the new services (Wijesiriwardana, 2018). Therefore, various studies attempted to identify factors affecting consumer usage behaviour of internet banking.

### *2.2.1. Self-Efficacy*

Self-efficacy is considered as individuals' beliefs in their ability to achieve actions (Vinh Sum, 2010). According to Venkatesh and Davis (1996) a person's self-efficacy is a pioneer and a determinant of internet banking usage. If the self-efficacy is higher, the wiliness to learn new technologies is higher. Hence it will increase the internet banking usage. According to Compeau and Higgins (1995), self-efficacy is an important factor that determines the usage of information technologies. It was identified that self-efficacy is important and significant factor affecting technology acceptance (Meng-Hsiang and Chao-Min, 2004). Therefore, self-efficacy can be highly considered as a factor that effects on internet banking usage behaviour of baking customers.

### *2.2.2. Perceived Risk*

According to Zhang et al. (2015), the concept of perceived risk was originally established in 1960 by Bauer. Consumers' purchase behaviours were hard to predict. Therefore, consumers' purchase decision contains the uncertainty of the outcome, which was led to perceived risk (Zhang et al., 2015). However, perceived risk is the uncertainty when a customer is buying items. Every time a consumer buys a product, he or she has certain doubts about the unpleasant consequences through the purchasing. According to Jarvennpaa and Todd (1996), there are five types of risks in online shopping:

1. Economic risk (the risk of monetary loss arising from online shopping).
2. Social risk (acceptance of online shopping behaviour by other society members, such as family members, friends, etc.).
3. Performance risk (whether the purchased products or services are able to meet customer's expectation).
4. Personal risk (risk of any harm to the customers because of the purchase behaviour).
5. Privacy risk (loss of the right to privacy).

According to Vinh Sum and Liqing (2010), perceived risk negatively affected on the behaviour of internet banking. Personal involvement in the decision-making process is a reflection of the perceived (Miniard, & Engel, 2008). Therefore, perceived risk is highly influencing the internet banking usage of customers.

### *2.2.3. Social Influence*

Social influence occurs when a person's emotions, opinions or behaviours are affected by others intentionally or unintentionally. Social influence can be in many forms and seen in conformity, socialization, leadership, persuasion, sales, and marketing etc. Social influence helps to understand the changes with individuals' attitude by external inputs, such as information communicated to them. Oye et al. (2014) identifies the expectation of effort and social influence as the main predictors and put time and technical support as the main barriers to the acceptance and the use of technology. Martins, Oliveira and Popovic (2014) did a study on acceptance and technology use, and the study identified the importance of the performance expectation, effort expectation, social influence and risk factors in the prediction

of Intention. Therefore, social influence highly influences on internet banking usage of customers.

#### *2.2.4. Attitude*

Technical Acceptance Model Constructs Behavioural Intention and Attitude. Behavioural Intention is defined as the strength of a person's intention to behave in a specific way while attitude is defined as an individual's positive and negative feelings about performing the target behaviour (Fishbein and Ajzen, 1975). Davis et al (1989) developed a model that is used to explain computer usage behaviour. It was built on theory of reason action by Fishbein and Ajzen (1975), which stated that support beliefs determine attitude, attitude and subjective norms influence on behavioural intentions and ultimately influence their turn affect behaviour. According to Ilias Santouridis (2013), attitude is a highly influential factor that effects on internet banking adoption Greece banking customers.

### **3. Methodology**

The study focused on young internet banking consumers in Kandy urban area. Kandy city can be recognized as a place where there is a rapid development and banking activities of the people are at a considerable level. Furthermore, majority of internet banking users belong to the age group of 18-30 years (Perera, 2013). The sample of internet banking users and non-internet banking users for the research were selected via the convenience sampling method. (Premarathne, Gunatilake, 2016). Hence, 150 samples were extracted using convenient sampling method and a survey has been done to extract data with the aid of a structured questionnaire. The questionnaire used five-point Likert scale (Strongly Disagree – 1; Strongly Agree – 5). The study used descriptive and inferential statistical methods coming under deductive approach to analyze data. The questionnaire is composed of 2 main sections. Section 1 is to identify the demographics factors. The section 2 is to measure the independent variables which are self-efficacy, perceived risk, social influence, attitude and the dependent variable which is internet banking usage behaviour. Five questions were included to represent each variable and respondents were asked to rank their agreement or disagreement on each question. The social influence on the adoption of IBS was measured in terms of Kelman's (1958) under three basis of social influence such as compliance, identification and internalization to measure. The final part was used to represent the dependent variable which is internet banking usage behaviour. Multiple Linear Regression Model was employed using SPSS statistical analysis software. The researcher aimed to ascertain the relationship between the dependent variable and independent variables. The study developed regression equation as below.

## Regression Equation

$$y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + u_i$$

Where,

$\alpha$  = Intercept

$X_1$  = Self-Efficacy

$X_2$  = Perceived Risk

$X_3$  = Social Influence

$X_4$  = Attitude

$U_i$  = Error Terms

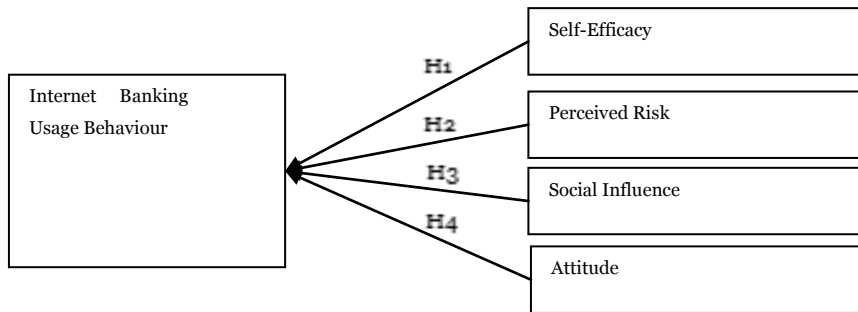


Figure 1: Conceptual Model of the Study

In this study, the researcher needed to identify the factors affecting internet banking usage behaviour of youth in Kandy urban area. The study identified few important independent variables as factors that affect internet banking behaviour. Hence, the study defined the hypotheses as below considering the previous literature.

H1: Self-efficacy is having a significant impact on internet banking usage behaviour.

H2: Perceived risk is having a significant impact on internet banking usage behaviour.

H3: Social influence is a having significant impact on internet banking usage behaviour.

H4: Consumers' Attitudes are having a significant impact on internet banking usage behaviour.

## 4. Results and discussion

At present, online banking services have been spread within a wider range and provide convenient access to banking services in Sri Lanka. In such a situation this study focuses on banking customers with especial reference to youth in Kandy urban area. Data was collected from questionnaires completed by 150 young banking customers as the sample in Kandy

urban area (n=150). According to the collected data, 67 respondents are female (45%) and 83 are male respondents (55%). The highest number of internet banking users which is 62 respondents (42%) were reported in the age group of 31-35 years and 48 respondents are in the age group of 26-30 years( 32%). The age group 21-25 consists of 38 respondents (25%). As reported, 88 respondents (59%) are working in private sector and 38 respondents working in state sector (25%) and 24 of the respondents are students (16%). The highest reported salary income of the respondents (57%) lies between Rs. 31,000 -45,000. Between Rs. 16,000 – 30,000 there are 31 respondents (21%) and 12 respondents (12%) earns between Rs. 46,000- 60,000. 3 internet banking users (1%) earn salaries between Rs. 61,000-100,000. In the educational background, 55 of the respondents are graduated (37%) and 95 respondents have passed G.C.E Advanced levels (63%). As reported, 80 individuals are working in marketing sector (53%), 28 respondents are in banking sector (19%) and other 42 including university students work in academic sector (28%). These characteristics are shown in table 01.

Table1: Demographic information

| Characteristic           | Number | Percentage % |
|--------------------------|--------|--------------|
| Age                      |        |              |
| 15-20                    | 2      | 1            |
| 26-30                    | 48     | 32           |
| 21-25                    | 38     | 25           |
| 31-35                    | 62     | 42           |
| Gender                   |        |              |
| Male                     | 83     | 55           |
| Female                   | 67     | 45           |
| Working Sector           |        |              |
| Private                  | 88     | 59           |
| Public                   | 38     | 25           |
| Students                 | 24     | 16           |
| Working Field            |        |              |
| Marketing                | 80     | 53           |
| Banking                  | 28     | 19           |
| Academic                 | 42     | 28           |
| Monthly Income Scale Rs. |        |              |
| Below 15000              | 10     | 9            |
| 16,000-30,000            | 31     | 21           |
| 31,000-45000             | 88     | 57           |
| 46,000-60,000            | 18     | 12           |

Source: Researcher's Database (2019)



The study used regression model to identify the factors affecting internet banking usage behaviour. A Reliability Test as shown in table 2 below in order was conducted to identify the internal consistency of all the questions included which lead to measure the variables.

Table 2: Reliability Table

| Variables                  | Cronbach's Alpha |
|----------------------------|------------------|
| Self-efficacy              | 0.654            |
| Perceived Risk             | 0.678            |
| Social Influence           | 0.688            |
| Attitude towards           | 0.657            |
| Internet Banking behaviour | 0.963            |

Source: Researcher's Database (2019)

Using Cronbach's Alpha statistical test, it was identified that the included questions were highly reliable in measuring all variables in the model. Multi collinearity is an important problem in regression models. Therefore, understanding about multi collinearity is highly important in order to develop a better regression model for addressing the main objective of the study. In this way, the study identified collinearity of independent variables as indicating in table 03.

Table 3: Multi-collinearity test

| Model            | Collinearity Statistics |       |
|------------------|-------------------------|-------|
|                  | Tolerance               | VIF   |
| (Constant)       |                         |       |
| Perceived Risk   | .972                    | 1.029 |
| Social Influence | .995                    | 1.005 |
| Attitude         | .542                    | 1.846 |
| Self-Efficacy    | .535                    | 1.871 |

Source: Researcher's Database (2019)

With the result of variance inflation factors (VIF), independent variables were not having multicollinearity issue in the model of this study. Practical experience indicated that if VIF value is greater than 10, variables indicate Multicollinearity issue and vice versa (Lbhar, 1983). VIF values in all independent variables are not exceeding 10. Hence, it can be determined that multicollinearity issue does not exist in the model. Therefore, the model can

be used for further analysis. According to regression analysis result, F test indicated that model was significant under 5% significant level. R<sup>2</sup> was reported as 0.401 and that indicate how long dependent variable is explained by independent variables.

Table 4: Model Summary

| R     | R Square |
|-------|----------|
| 0.633 | 0.401    |

Source: Researcher's Database (2019)

T test was used to identify the independent variable which is indicated as significant in the model and used it for understanding about factors affecting internet banking usage behaviour. According to T test of the model, only two independent variables were significant and can be used for understanding internet banking usage behaviour. Perceived risk and social influence are main important factors that determine the internet banking usage of youth in Kandy urban area. Beta values of perceived risk was reported as 0.145 while beta

Table 5: ANOVA Table

| Model      | Sum of Squares | df  | Mean Square | F     | Sig.              |
|------------|----------------|-----|-------------|-------|-------------------|
| Regression | 6.832          | 4   | 1.708       | 5.817 | .000 <sup>b</sup> |
| Residual   | 44.046         | 150 | .294        |       |                   |
| Total      | 50.877         | 154 |             |       |                   |

Source: Researcher's Database (2019)

value of social Influence was 0.229. Attitude and Self Efficacy were not significant under 5% significant level in the model. According to regression analysis in this study, following equation was developed in order to understand factors affecting internet banking behaviour of youth in Kandy urban area.

$$y = 2.023 + 0.145X_1 + 0.229X_2$$

Therefore, regression result revealed that Social Influence is the most important factor that highly affects internet banking usage behaviour. Banking organizations and other relevant organization directly or indirectly related to internet banking should focus their attention on

those important factors when they attempt to understand about internet banking behaviour of youth specially in Kandy urban area.

Table 6: Coefficients

| Model            | B     | t     | Sig. |
|------------------|-------|-------|------|
| (Constant)       | 2.023 | 3.992 | .000 |
| Perceived Risk   | .145  | 2.126 | .035 |
| Social Influence | .299  | 4.045 | .000 |
| Attitude         | -.040 | -.352 | .725 |
| Self-Efficacy    | .130  | 1.236 | .218 |

Source: Researcher's Database (2019)

Therefore, commercial banks need to upgrade the internet banking services and should initiate strategies targeting their customers in such a way that it changes customer's attitudes and improves customers' self-efficacy towards using internet banking services while lowering risk involved with internet banking services in order to give more satisfaction for the existing users while attracting new users and finally making it a more advantageous process.

## 5. Conclusion

As a developing country Sri Lanka is slightly inclining to internet banking usage with several technical and conventional issues. This study attempts to identify the factors which affect the internet banking usage specially among youth generation. The findings of the study are important for both commercial banks and bank customers in Sri Lanka in identifying the factors which affecting the usage of internet banking services. Data was collected by a structured questionnaire using five-point Likert scale.

The regression analysis result revealed that, Perceived Risk and social influence are statistically significant under 95 percent confident level having positive relationship with internet banking usage behaviour. However, attitudes and self-efficacy have no impact on internet banking usage behaviour. Therefore, commercial banks and other financial institutions which are related with internet banking services need to upgrade their online services featuring easy and riskless access to make it more advantageous for the existing users while attracting new users.

## References

- Ajzen, I., & Fishbein, M. (1975). A Bayesian analysis of attribution processes. *Psychological bulletin*, 82(2), 261.
- Compeau, D. R., & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. *MIS quarterly*, 189-211.
- Davis, F. D., & Venkatesh, V. (1996). A critical assessment of potential measurement biases in the technology acceptance model: three experiments. *International journal of human-computer studies*, 45(1), 19-45.
- Fernando, K.C.L.(2016). New trends of online banking in Sri Lanka: Arthikavidya, *Journal of Economics Students' Society, Economics Student Society, Department of Economics, University of Kelaniya, Sri Lanka*. 11(1): 172-184
- Hsu, M. H., & Chiu, C. M. (2004). Internet self-efficacy and electronic service acceptance: Decision support systems, 38(3), 369-381.
- Jarvenpaa, S. L., & Todd, P. A. (1996). Consumer reactions to electronic shopping on the World Wide Web. *International Journal of electronic commerce*, 1(2), 59-88.
- Jayawardhena, C., & Foley, P. (2000). Changes in the banking sector—the case of Internet banking in the UK. *Internet research*, 10(1), 19-31.
- Katz, J., & Aspden, P. (1997). Motivations for and barriers to Internet usage: Results of a national public opinion survey. *Internet Research*, 7(3), 170-188.
- McDougall, G. H., & Levesqu, T. J. (1994). Benefit segmentation using service quality dimensions: an investigation in retail banking. *International Journal of Bank Marketing*, 12(2), 15-23.
- Mols, N. P., Nikolaj D. Bukh, P., & Flohr Nielsen, J. (1999). Distribution channel strategies in Danish retail banking. *International Journal of Retail & Distribution Management*, 27(1), 37-47
- Perera, K. M. (2013). Factors affecting usage of internet banking in Sri lanka:
- Sum Chau, V., & Ngai, L. W. (2010). The youth market for internet banking services: perceptions, attitude and behaviour. *Journal of Services Marketing*, 24(1), 42-60.

Trivellas, P. G., & Santouridis, I. (2013). The impact of Management Information Systems' effectiveness on task productivity. The case of the Greek Banking Sector. *International Journal of Computer Theory and Engineering*, 5(1), 170-173.

Wasantha Premarathne, M. M. (2016). Consumer Adoption Of Internet Banking In Sri Lanka. *International Journal of Advanced Research*, 758-765.

