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*Abstract-* This paper examines Senior Citizens' intention towards using digital banking in a context where there is a rapid development in online banking systems in Sri Lanka. It was revealed that most of the Senior Citizens are away from the digital banking platform even though bank has made huge investments for the implementation of the digital banking systems. Therefore, the aim of this research is to investigate the impact of perceived usefulness and perceived ease of use, on the behavioral intention of Senior Citizen to use the digital banking system with the application of Technology Acceptance Model (TAM). The structured questionnaire used as the main instrument in gathering primary data from 200 respondents from 20 branches of the selected commercial banks using convining sampling method. This study investigated that there is a positive relationship between perceived usefulness and beheviroal intention, also between perceived ease of use and beheviroal intention.

*Keywords: senior citizen, digital banking, technology acceptance model, perceived usefulness, perceived ease of use.*

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# Senior Citizens' Intention to use Digital Banking (With Special Reference to Selected Commercial Bank in Sri Lanka)

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*Abstract-* This paper examines Senior Citizens' intention towards using digital banking in a context where there is a rapid development in online banking systems in Sri Lanka. It was revealed that most of the Senior Citizens are away from the digital banking platform even though bank has made huge investments for the implementation of the digital banking systems. Therefore, the aim of this research is to investigate the impact of perceived usefulness and perceived ease of use, on the behavioral intention of Senior Citizen to use the digital banking system with the application of Technology Acceptance Model (TAM). The structured questionnaire used as the main instrument in gathering primary data from 200 respondents from 20 branches of the selected commercial banks using convining sampling method. This study investigated that there is a positive relationship between perceived usefulness and beheviroal intention, also between perceived ease of use and beheviroal intention.

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## I. Introduction

In the present world technology plays a major role in the society. With the rapid growth of the technology, banks get special help from the internet to do their day to day transactions. Internet banking or Digital banking is a banking method that customers can do their transactions via internet without coming to the bank premises.

In the present situation the older population is surrounded by technology, mobile based zone. By 2020 it is anticipated that there will be more than one billion adults using the advantage of digitization. Through digital banking, the users can transfer and receive money, pay bills, initiate fixed deposits and perform transactions and other tasks.

At the same time this research is giving the attention to the concerns of older adults and their ability to access digital banking systems. Banking institutions have been creating websites for many years now, although these cannot be said to be user-friendly for older users.

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Now a days there are online banking systems in every bank, and senior citizens are afraid to use those systems. They think paper works are more accurate and safety than using such technological systems. Also, most of the mobile apps are not user friendly to the older adults because of the lack of knowledge about technology.

Biophysical again includes "changes in sensory and intellectual functioning if the organism, diminished mobility and physical strength, changes in outer appearance again and death of cells" (Moschis, 1995, p. 115) .

In the presence of developing the societies are being led to increase the maturity of the customer. Due to this the customers are more understandable on the needs and interest of them. The market structures should be reconstructed.

The mature customers' needs, and power is rapidly higher in the todays' market. They are investing more and more sum of money for the future. Some of the studies are being concluded that there are mature or senior customers who will be controlled a considerable amount of money in the future. One of the carelessness of system developers are, they think only about the easiness and friendliness of the systems. They are much more concerned on the younger generation.

In order to do this research, the Colombo region branches of Specific commercial banks are being selected. According to Asia money best bank awards 2018: Sri Lanka, this bank is the best digital bank in 2018. Therefore, customer's attention towards digital banking is very important to the bank. But Most of the senior citizens are used to visit branches rather than use digital banking platforms. Specific commercial banks are investing more on digital banking platforms, because younger generations are more attracted to digital banking systems where they can make their day to day transactions easier. According to Strategic direction that bank has published, they have a vision on improvement of digital banking and attract the rest of the customers towards digital banking in 2020.

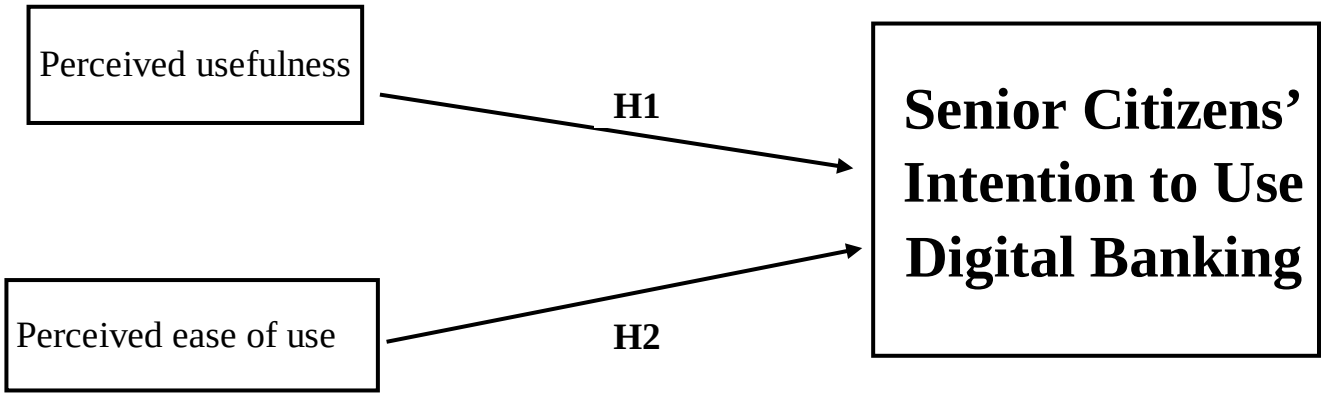
The selected bank is an innovative private bank in Sri Lanka. As a new step of digital banking, bank has launched on its own digital wallet and payment app called "SOLO" link with other banks in Sri Lanka. It provides freedom to customers on digital payments.



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SOLO is very flexible mobile app and can used anywhere even in a taxi.

According to researchers, if the selected bank can attract the rest of the senior citizens who use manual working, the bank can achieve their vision in 2020 and it will lead to their success, Therefore, the output of this study will be helpful to the bank in order to create practical solutions to the matter.




*Source: (Kiran J. Patel, Hiren J. Patel, 2017)*

The model showcase of the conceptual frame work Technology Acceptance Model (TAM) which was used to find senior citizen's intention to use digital banking. Framework includes four variables, each variable is use to build a hypothetical relationship against the intention towards digital banking platform. The hypothesis were mainly develop on the information in the past research paper which have undertaken in other countries.

*H1:* Perceived usefulness has a significant impact on Senior Citizens intentions to use digital banking.

*H2:* Perceived ease of use has a significant impact on Senior Citizens intentions to use digital banking.

## II. Material and Methods

In this study, researchers will be using primary data in the form of structured questionnaires. A sample size of 200 senior citizens from selected commercial bank in the Colombo Region will be used and convenience sampling method will be used as the sampling method. In this study we use deductive approach and it is used to test an existing theory.

Researchers have selected the variables in Technology Acceptance Model (TAM) to fit the study under consideration.

- Perceived Usefulness (PU)
- Perceived Ease Of Use (PEOU)

Descriptive Analysis was used in order to analyze the factors influencing Senior citizens' intention towards digital banking. Descriptive statistics were used to describe the characteristics of a data set in a study by using both numerical methods such as mean, median, maximum, minimum, standard deviation, coefficient of variance.

## III. Results

- Relationship between Perceived usefulness and Behavioural Intention

The correlation was used to identify the level of correlation between Perceived usefulness and Behavioural Intention as Table 1.

*Table 1:* Correlation between perceived usefulness and behavioural intention

**Correlations**

| | | | Perceived_usefulness | Behavioural_intention |
|---|---|---|---|---|
| Spearman's rho | Perceived_usefulness | Correlation Coefficient | 1.000 | .691** |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 30 | 30 |
| | Behavioural_intention | Correlation Coefficient | .691** | 1.000 |
| | | Sig. (2-tailed) | .000 | . |
| | | N | 30 | 30 |

**. *Correlation is significant at the 0.01 level (2-tailed).*



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According to the Table 1, it shows that there is a significant correlation between Perceived usefulness and Behavioural Intention. It can be noticed that spearman's r value is 0.691and there is a positive relationship between the two variables.

*Hypothesis Test*

*Ho:* Perceived usefulness has no significant impact on Behavioural Intention of senior citizens.

*H1:* Perceived usefulness has a significant impact on Behavioural Intention of senior citizens.

As Table 1 illustrates, the p-value is 0.000(<0.05). In other words, the p-value is lesser than alpha. Therefore, there is sufficient evidence to reject the null hypothesis. Therefore, it is concluded that there is a statistically significant positive correlation between the two variables Perceived usefulness and Behavioural Intention.

- Relationship between Perceived ease of use and Behavioural Intention

The spearman's correlation was used to identify the level of correlation between Perceived ease of use and Behavioural Intention as Table 2.

*Table 2:* Correlation between perceived ease of use and behavioural intention

**Correlations**

| | | | Perceived_ease_use_of_use | Behavioural_intention |
|---|---|---|---|---|
| Spearman's rho | Perceived_ease_use_of_use | Correlation Coefficient | 1.000 | .736** |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 30 | 30 |
| | Behavioural_intention | Correlation Coefficient | .736** | 1.000 |
| | | Sig. (2-tailed) | .000 | . |
| | | N | 30 | 30 |

**. *Correlation is significant at the 0.01 level (2-tailed).*

According to the Table 2, it shows that there is a significant correlation between Perceived ease of use and Behavioural Intention. It can be noticed that spearman's r value is 0.736 and d there is a positive relationship between the two variables.

*Hypothesis Test*

$H_o$*:* Perceived ease of use has no significant impact on Behavioural Intention of senior citizens.

$H_1$*:* Perceived ease of use has a significant impact on Behavioural Intention of senior citizens.

As Table 4 illustrates, p-value is 0.000 (<0.05). In other words, the p-value is lesser than alpha. Therefore, there is sufficient evidence to reject the null hypothesis. Therefore, it is concluded that there is a statistically significant positive correlation between the two variables Perceived ease of use and Behavioural Intention.

*a) Multiple Regression Analysis*

Multiple regression is an extension of simple linear regression. It is used when we want to predict the value of a variable based on the value of two or more other variables. Statistical Package for the Social Science (SPSS) Statistics generates three main tables of output for a multiple regression analysis as below. (Table 3- 4).

*Model Summary*

*Table 3:* Model Summary

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .773[a] | .597 | .533 | .32575 |

a. *Predictors:(Constant),Perceived_usefulness,Perceived_ease_use_of_use*

The "R" column represents the value he *multiple correlation coefficient which* is the correlation between the observed and predicted values of the dependent variable. It is 0.773. $R^2$ value (coefficient of determination), which is the proportion of variance in the dependent variable that can be explained by the independent variables is 0.597. i.e., the independent variables explain 59.7% of the variability of our dependent variable, behavioual intention.



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*Estimated Model Coefficients*

*Table 5:* Model Coefficients

Coefficients[a]

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| 1 | (Constant) | -.182 | 1.373 | | -.133 | .896 | -3.010 | 2.646 |
| | Perceived_usefulness | .442 | .553 | .208 | .799 | .432 | -.697 | 1.580 |
| | Perceived_ease_use_of_use | .578 | .325 | .524 | 1.778 | .088 | -.092 | 1.248 |

a. *Dependent Variable: Behavioural_intention*

Based on the above output, the general form of the equation to predict behavioual intention from perceived usefulness, perceived ease use of use is;

Predicted behavioual intention = -0.182 + 0.442*Perceived_usefulness + 0.578*Perceived_ease_use_of_use

## IV. Conclusion

According to the study it will be concerned how the above-mentioned independent variables are affected the dependent variable. It also concerns on how strength the dependent variable is affected by the independent variables. The senior citizens will be more attracted through increasing their performance through the usage of the technology. Increase of the technology methods such as, user friendly interface, attractive colors and lesser features increase the behavioral intention of the senior citizen's perception on digital banking. When the adults can use the digital banking technology without anyone's help, it will increase their perception. The social influence from the outsiders is increase the senior citizen's perception on digital banking. This is where the one who believes that another person who is using the digital banking is important and where he or she is inherently starting to use it. Where the digital banking is increasing the security of the person's through financially, psychologically and the performance, it will confirm the security of person's who uses the digital banking. This will ultimately lead to increase the perception of the senior citizen's perception on digital banking.

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