Relationship between Mobile Banking Applications Security and User Trust

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Declaration

It is hereby declared by us that this thesis is our own work. Further this research has not been submitted in any other form for another degree or diploma at any university or other institution of tertiary education. Acknowledgements have been given for the information derived from the published or unpublished work of others in the text and a references list is also given.

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Abstract

Banking industry has become one of the most vibrant industries at present with the expansion of economies and complication of human needs and wants. One of very interesting technological innovations for these online transactions is performing them through smart phone mobile applications. Though these mobile banking applications are very popular in today's context and they derive various advantages, concerns have also arise regarding the security of the banking transactions done through mobile banking applications. Therefore, mobile banking applications security has become one of the issues of paramount importance for mobile applications developers and service providing banks. According to literature related to this area of concern, many researchers recognise security as a strong reason for the banking customers for not adopting to mobile banking applications. Those reearchers highlight that one of the main reasons for lower adoption for mobile banking and lower usage of mobile banking applications is the concers of security.

There is a gap in emperical knowledge with respect to the relationship between the degree of security of mobile banking applications and user trust. When it comes to the Sri Lankan context, the gap in emperical knowledge about the above factor is very obvious. Apart from that, the preliminary observations done by the researcher revealed that many people are reluctant to use mobile banking applications. Although many banking customers own smart devices and have a fair knowledge in operating smart devices, they are still reluctant to install mobile banking applications and exploit the opportunity to perform the banking transactions easily through the app. It made this researcher to study about the issue and refer related literature. According to literature, the reason for this lower adoption for mobile banking applications is a trust issue that mobile banking customers have regarding the security of mobile banking applications. Therefore, the researcher thought of investigating whether there is a relationship between degree of security of mobile banking applications perceived by the users and user trust.

One hypothesis formulated with the idea of coming up with findings for the research problem spoken in this research. The research was conducted connecting with 220 individuals representing executive category of both public and private sectors. The

conducted research was a correlation study and it is a cross sectional study as well. The unit of analysis was individual level. Frequency analysis was used to understand the sample profile and descriptive statistics were used to investigate the extent of perception regarding the security of mobile banking applications and user trust. Correlation analysis was used to test the hypothesis.

The results showed that there is a strong positive correlation between perceived degree of security of mobile banking applications and user trust. This research revealed that the most sough trust element by the customers is benevolence. It was also revealed that access control systems and ability to perform transactions through the application are the most important existing security control measures for the customers. The research further revealed that customers expect banks to add multi factor authentication and fingerprinting technology to mobile banking applications when developing security of mobile banking applications in the future.

This research is beneficial for the banks and mobile banking applications developers to get a better understanding about the relationship between security of mobile banking Applications and user trust. Through the findings of this research bankers get a better understanding on what security features they should enhance and what security features they should include in future developments of mobile banking applications. Thus this research provides simple guidelines for the banks and developers to develop efficient and effective mobile banking applications that ensure surety of the transactions of the users and gain user trust.

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