



Evaluating Digital Banking's Impact on Customer Preferences and Employee Efficiency in Sri Lanka

A.N.E. Deshapriya
(Reg. No.: MS24022842)

A THESIS
SUBMITTED TO
SRI LANKA INSTITUTE OF INFORMATION TECHNOLOGY
IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF SCIENCE IN INFORMATION SYSTEMS


December 2025

I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science.

04/01/2026

Mrs Suranjini Silva

Approved for MSc. Research Project:



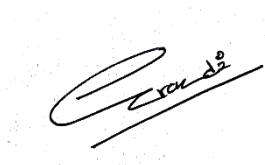
MSc in IS Programme Co-ordinator, SLIIT

Approved for MSc:

Head of Graduate Studies, FoC, SLIIT

DECLARATION

This is to certify that, except where explicitly indicated to the contrary, this is entirely my own work and not that of any other person, whether published or unpublished. This work has not previously been submitted in any form to the Sri Lanka Institute of Information Technology or to any other institution for assessment for any other purpose.



Sign:

A.N.E. Deshapriya

Date: 04.01.2026

ABSTRACT

Evaluating Digital Banking's Impact on Customer Preferences and Employee Efficiency in Sri Lanka

A. Nethmi Erandika Deshapriya

MSc. in Information Systems

Supervisor: Mrs Suranjini Silva

December 2025

The fast expansion of digital banking in Sri Lanka has significantly transformed the financial services landscape, affecting both customer choices and internal operational processes within banks. This research investigates how digital platforms influence customer behavior by examining key aspects such as convenience, trust, system reliability, ongoing IT skill enhancement, and organizational culture. Simultaneously, it evaluates employee efficiency in relation to process automation, technological preparedness, digital competence, and overall performance. A mixed-methods approach is employed, combining customer surveys with interviews conducted among employees across various banking departments.

Findings reveal that perceived usefulness, and data security are central to enhancing customer satisfaction, fostering trust, and driving digital adoption. For employees, efficiency improvements are strongly linked to adequate training, streamlined systems, and effective integration of digital tools, which together support sustainable digital transformation and compliance with regulatory standards.

Based on these insights, the study recommends strengthening digital infrastructure, advancing employee training programs, improving user interfaces, and promoting digital inclusivity to build customer confidence. The outcomes provide practical guidance for banks, policymakers, and IT solution providers in advancing customer-focused and digitally empowered banking services in Sri Lanka.

Keywords-Digital banking, customer preference, employee efficiency, digital literacy, technology adoption, transformation in financial services, trust in digital systems.

ACKNOWLEDGEMENT

I would like to convey my heartfelt gratitude to my mentor, **Mrs. Suranjini Silva**, for her exceptional guidance, encouragement, and support throughout the course of this research. Her thoughtful advice, constructive suggestions, and constant motivation were instrumental in refining my ideas and enhancing the quality of my work. I am especially thankful for the time she devoted to reviewing my progress and for granting me the academic freedom and confidence to carry out this study with independence.

My sincere appreciation also goes to the faculty and staff of the **Sri Lanka Institute of Information Technology (SLIIT)** for providing a conducive academic environment that greatly contributed to the completion of this research. I am equally grateful to all the participants who generously shared their time and insights in the survey, without whose contributions this study would not have been possible.

Lastly, I extend my deepest thanks to my **family and friends** for their unwavering encouragement, patience, and support. Their continuous inspiration and belief in me have been a source of strength throughout this journey.

TABLE OF CONTENTS

DECLARATION	ii
ABSTRACT.....	iii
ACKNOWLEDGEMENT	iv
Lits of Figures	ix
Lits of Tables	x
Chapter 01 – Introduction	1
1.1 Background of the study	1
1.2 Statement of the Problem	2
1.3 Main and Sub Research Objectives of the study	3
1.3.1 Main Research Objective.....	3
1.3.2 Sub Research Objectives	3
1.4 Significance of the Study.....	4
1.5 Scope and Limitations of the study	5
1.5.1 Scope of the study	5
1.5.2 Limitations of the study.....	6
1.6 Organization of the Study.....	6
Chapter 02 – Literature Review	8
2.1 Introduction to the chapter.....	8
2.2 Theories and Models Applied for Digital Banking Adoption.....	9
2.2.1 Technology Acceptance Model (TAM).....	9
2.2.2 Unified Theory of Acceptance and Use of Technology (UTAUT).....	11
2.3 Review of Research on Digital Banking Adoption.....	12
2.3.1 Mobile Banking	12
2.3.2 Online Banking.....	14
2.4 COVID-19's Effect on Sri Lanka's Banking Sector	16
2.5 Digital Transformation's Context in the Banking Industry	18
2.6 Digital Transformation's Effect on Commercial Banks.....	19
2.7 Digital Transformation Strategies in the Banking Sector	20
2.8 Factors Influencing Digital Banking Adoption.....	22
2.9 Challengers and Opportunities in Digital Transformation	24
2.9.1 Challenges	25
2.9.2 Opportunities.....	26

2.9.3 Balancing Challenges and Opportunities	27
2.10 Summery of Research Gap and Future Direction	27
2.10.1 What Has Been Covered in Literature	27
2.10.2 Unexplored or Underexplored Areas	28
2.10.3 Proposed Directions for Future Studies	30
Chapter 03 – Research Methodology	33
3.1 Introduction to the Chapter	33
3.2 Research Approach	33
3.3 Research Design	35
3.3.1 Purpose of Research Design	35
3.3.2 Type of Research Design	35
3.4 Conceptual Framework	35
3.4.1 Dependent Variable: Digital Banking Adoption	37
3.4.2 Independent Variable 1: Customer Preferences	37
3.4.3 Independent Variable 2: Employee Efficiency	38
3.4.4 Research Questions and Hypotheses	39
3.4.5 Significance of the Framework	40
3.5 Sampling and Population	41
3.5.1 Population of the Study	41
3.5.2 Sampling Technique	42
3.5.3 Sample Size	42
3.5.4 Sampling Procedure	43
3.5.5 Representativeness and Limitations	45
3.6 Data Collection Methods	46
3.6.1 Research Context and Rationale for Data Collection	46
3.6.2 Data Collection Approach	47
3.6.3 Data Sources	47
3.6.4 Sampling Design and Procedure	47
3.6.5 Data Collection Instrument	48
3.6.6 Data Collection Process	49
3.6.7 Ensuring Reliability and Validity	50
3.6.8 Challenges in Data Collection	50
3.7. Data Analysis Tool and Techniques	51

3.7.1 Data Preparation	52
3.7.2 Tools for Data Analysis.....	52
3.7.3 Data Analysis Techniques.....	53
3.7.4 Integration of Employee Interviews.....	55
3.8 Research Limitations	56
3.9 Ethical Considerations	60
3.9.1 Informed Consent.....	60
3.9.2 Confidentiality and Anonymity	61
3.9.3 Voluntary Participation	61
3.9.4 Transparency and Clarity.....	62
3.9.5 Handling Sensitive Information	62
3.9.6 Data Storage and Security.....	62
3.9.7 Minimizing Harm.....	63
3.9.8 Reporting and Dissemination	63
Chapter 04 – Results and Discussions	65
4.1 Introduction to the Chapter	65
4.2 Customer Survey Data Analysis	65
4.2.1 Introduction to Customer Survey	65
4.2.2 Descriptive Analysis	66
4.2.3 Reliability and Validity Testing.....	74
4.2.4 Correlation Analysis	75
4.2.5 Multicollinearity Testing	76
4.2.6 Regression Analysis	77
4.2.7 Hypothesis Testing	80
4.2.8 Summary of Analytical Findings	81
4.3 Employee Survey Data Analysis.....	82
4.3.1 Introduction to Employee Survey.....	82
4.3.2 Descriptive Analysis	83
4.3.3 Reliability and Validity Testing.....	90
4.3.4 Correlation Analysis	91
4.3.5 Multicollinearity Testing	93
4.3.6 Regression Analysis	94
4.3.7 Hypothesis Testing	98

4.3.8 Summary of Analytical Findings	99
4.4 Justification and Hypothesis Acceptance	100
4.5 Results, Discussion, and Implications of Digital Banking Adoption	101
Chapter 05 – Summary, Conclusion and Recommendations.....	104
5.1 Summary of Findings	104
5.2 Conclusion.....	105
5.3 Recommendations.....	106
5.3.1 Recommendation for Employees of the Banks	106
5.3.2 Recommendations for Management of the Banks	110
5.3.3 Recommendation for Customers of the Banking Sector	112
5.3.4 Discussion of Recommendations and Industry Implications	114
References.....	116
Appendix.....	120
Appendix 1 - Survey Questionnaire on Exploring Customer Preferences & Digital Banking Services in Sri Lanka	120
Appendix 2 - Survey Questionnaire on Evaluating Employee Efficiency in the Digital Banking Environment.....	125

Lits of Figures

Figure 1: Technology Acceptance Model (TAM)	10
Figure 2 : Unified Theory of Acceptance and Use of Technology Model (UTAUT)	11
Figure 3 : Conceptual Diagram for Customer Preferences in Digital Banking Adoption	36
Figure 4 : Conceptual Diagram for Employee Efficiency in Digital Banking Adoption	36
Figure 5: Age Analysis	66
Figure 6 : Gender Analysis	68
Figure 7 : Education Qualification Analysis.....	69
Figure 8 : Occupation Analysis.....	70
Figure 9 : Usage Frequency Analysis	71
Figure 10 : Period of Use Analysis	72
Figure 11: Scatterplot Diagram for Customer Preferences for Digital Adoption.....	79
Figure 12 : Age Analysis	84
Figure 13 : Gender Analysis	85
Figure 14 : Role Analysis	86
Figure 15 : Experience Analysis	87
Figure 16 : Department Analysis	88
Figure 17 : Scatterplot Diagram for Employee efficiency for Digital Banking Adoption	97

Lits of Tables

Table 1: Age Distribution of Survey Respondents	67
Table 2: Gender Distribution of Survey Respondents	68
Table 3: Educational Qualification Distribution of Survey Respondents.....	69
Table 4: Occupation Distribution of Survey Respondents	70
Table 5: Usage Frequency Distribution of Survey Respondents	71
Table 6: Period of Use Distribution of Survey Respondents.....	72
Table 7: Descriptive Analysis Results	73
Table 8: Cronbach’s Alpha - Customer Preferences.....	74
Table 9: ANOVA Test Results	74
Table 10: Correlation Analysis between Customer Preferences, Perceived Usefulness, and Security and Trust.....	76
Table 11: Multicollinearity Diagnostics for Perceived Usefulness and Security and Trust	77
Table 12: Model Summary of the Regression Analysis	77
Table 13: Coefficients of Regression Analysis for Customer Preferences and Satisfaction	78
Table 14: ANOVA Results of the Regression Model.....	78
Table 15 : Results of Hypothesis Testing for Factors Influencing Customer Preferences and Satisfaction in Digital Banking Adoption.....	80
Table 16 : Age Distribution of Survey Respondents	85
Table 17 : Gender Distribution of Survey Respondents	85
Table 18 : Role Distribution of Survey Respondents	86
Table 19 : Experience Distribution of Survey Respondents	87
Table 20 : Department Distribution of Survey Respondents.....	88
Table 21 : Descriptive Statistics of Respondent Demographics	89
Table 22 : Cronbach’s Alpha - Employee Efficiency	90
Table 23 : ANOVA Test Results	91
Table 24 : Correlation Analysis between Employee Efficiency, Computer Literacy, and Training & Awareness.....	93
Table 25 : Multicollinearity Diagnostics for Computer Literacy and Training & Awareness	93
Table 26 : Model Summary of the Regression Analysis	95
Table 27 : Coefficients of Regression Analysis for Employee Efficiency	95
Table 28 : ANOVA Results of the Regression Model.....	95
Table 29 : Summary of Hypothesis Testing Results for Employee Efficiency	98