



Determinants of Technology Adoption and Its Effect on Service Efficiency and Customer Retention in the Beauty and Aesthetic Services Sector

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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.



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This is to certify that the work is entirely my own and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The 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.

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ABSTRACT

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Digital transformation has significantly reshaped the service sector, with digital appointment scheduling systems emerging as critical tools for improving efficiency and customer engagement. In the beauty and aesthetic service sector, where service quality, operational smoothness, and client satisfaction are vital, the adoption of such technologies offers the potential to reduce waiting times, minimize scheduling conflicts, and enhance overall customer experience. However, adoption rates vary across organizations due to differences in organizational readiness, user perceptions, and contextual challenges.

This study aims to develop and validate a model of the determinants of digital appointment system adoption within the Sri Lankan beauty and aesthetic service sector. Grounded in the Technology Acceptance Model (TAM) and technology adoption literature, the research identifies five independent variables—Service Efficiency, Customer Satisfaction, Organizational & Technical Readiness, Perceived Usefulness, and Perceived Ease of Use—as influencing adoption. The dependent variable is Adoption of Digital Appointment Systems (DASA), while moderating factors such as firm size and role (owner vs employee) are also considered.

A quantitative research design was employed, using a structured survey distributed among employees and owners of beauty and aesthetic service centers. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS. The study evaluates measurement reliability and validity, followed by hypothesis testing of the structural model.

Findings are expected to contribute both theoretically and practically by clarifying the key determinants of technology adoption in service industries, while also offering recommendations to managers, practitioners, and policymakers on fostering digital adoption in beauty and aesthetic services.

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TABLE OF CONTENTS

DECLARATION	ii
ABSTRACT.....	iii
ACKNOWLEDGEMENT.....	iv
TABLE OF CONTENTS.....	v
List of Figures	xi
List of Tables	xii
Chapter 1 Introduction	1
1.1 Background of the Study.....	1
1.2 Digital Transformation in the Service Sector	3
1.3 Appointment Scheduling in Beauty and Aesthetic Services	5
1.4 Problem Statement.....	7
1.5 Research Gap	8
1.6 Significance of the Study.....	9
1.7 Scope and Limitations	9
Chapter 2 Research Objectives & Questions	10
2.1 Research Objectives	10
2.2 Research Questions	10
Chapter 3 Literature Review	11
3.1 Introduction to the Literature Review	11
3.2 Theoretical Foundations of Technology Adoption.....	12
3.2.1 Technology Acceptance Model (TAM)	12
3.2.2 Unified Theory of Acceptance and Use of Technology (UTAUT)	13
3.2.3 Organizational Readiness.....	14
3.2.4 Theories Incorporated in the Study	15
3.2.5 Beauty and Aesthetic Services Relevance.....	16
3.3 Digital Transformation in Service Industries.....	16
3.3.1 Introduction	16
3.3.2 Drivers of Digital Transformation in Services.....	17
3.3.3 Digital Service Transformation Advantages.....	17
3.3.4 Appointment Scheduling System Role.....	18
3.3.5 COVID-19 Digital Adoption Impact	18
3.3.6 Challenges in Service Digital Transformation	19

3.3.7 Beauty and Aesthetic Services Industry Application.....	19
3.4 Adoption of Digital Appointment Scheduling Systems	20
3.4.1 Introduction	20
3.4.2 Determinants of Adoption	21
3.4.3 Adoption by Beauty and Aesthetic Services	21
3.4.4 Adoption Impacts.....	22
3.4.5 Adoption Barriers.....	23
3.5 Dependent Variables and Outcome Dimensions.....	23
3.5.1 Service Efficiency (SE)	23
3.5.2 Customer Satisfaction (CS).....	24
3.5.3 Operational Efficiency (OE)	25
3.5.4 Employee Efficiency (EE).....	26
3.5.5 Time Management Efficiency (TME).....	27
3.5.6 Implementation of Digital Appointment Systems (DASA)	28
3.5.7 Inter-Relationships Between Dependent Variables.....	29
3.6 Research Gap Analysis	29
3.6.1 Sectoral Gaps	29
3.6.2 Thematic Gaps	30
3.6.3 Contextual Gaps.....	30
3.6.4 Methodological Gaps	31
3.6.5 Contribution of This Study	31
3.7 Conceptual Model and Link to Literature	32
3.7.1 Introduction	32
3.7.2 Service Efficiency (SE) → Adoption	32
3.7.3 Customer Satisfaction (CS) → Adoption	32
3.7.4 Organizational and Technical Readiness (OTR) → Adoption	33
3.7.5 Perceived Usefulness (PU) → Adoption.....	33
3.7.6 Perceived Ease of Use (PEOU) → Adoption	33
3.8 Measurement Indicators and Literature Alignment	34
Chapter 4 Conceptual framework.....	35
4.1 Introduction	36
4.2 Independent Variables and Measured Indicators.....	36
4.3 Dependent Variable and Measured Indicators.....	38
4.4 Hypotheses Development.....	38
Chapter 5 Methodology.....	43
5.1 Introduction	43

5.1.1 Research Design	44
5.1.2 Explanatory Research Orientation	44
5.1.3 Cross-Sectional Design	44
5.1.4 Unit of Analysis	45
5.1.5 Justification of Methodological Choice	45
5.1.6 Alignment with Research Objectives	46
5.2 Population and Sampling	46
5.2.1 Beauty & Aesthetic Service Centres in Sri Lanka by Province	46
5.2.1 Sampling Strategy	46
5.3 Research Instrument / Questionnaire Development	48
5.3.1 Structure of the Questionnaire	48
5.3.2 Operationalization of Constructs	49
5.3.3 Scale and Measurement Considerations	49
5.3.4 Validity and Reliability Procedures	49
5.3.5 Data Collection Procedures	50
5.3.6 Data Analysis Techniques	51
5.3.7 Data Pre-processing	51
5.3.8 Model Specification in SmartPLS	51
5.3.9 Estimation Settings in SmartPLS	52
5.3.10 Measurement Model Evaluation	52
5.3.11 Structural Model Evaluation	52
5.3.12 Multi-Group and Robustness Checks	53
5.3.13 Reporting Format	53
5.3.14 Step-by-Step Click Path in SmartPLS	53
5.3.15 Ethical Considerations	54
Chapter 6 Data Analysis	55
6.1 Data Pre-processing	55
6.1.1 Data Import and Coding	55
6.1.2 Data Screening	55
6.1.3 Common Method Bias (CMB) Checks	56
6.1.4 Measurement Model	57
6.1.5 Structural Model	58
6.2 Estimation Settings in SmartPLS	60
6.2.1 PLS Algorithm	60
6.3 Path Model (Updated based on SmartPLS results)	61
6.4 Bootstrapping	63

6.5 Blindfolding	64
6.6 PLSpredict	64
6.6.1 Summary of the Estimation Phase	65
6.6.2 Construct Reliability and Validity (Introduction)	66
6.6.3 Internal Consistency Reliability	66
6.6.4 Indicator Reliability	67
6.6.5 Convergent Validity	67
6.6.6 Overall Interpretation	68
6.6.7 Convergent and Discriminant Validity (Transition)	68
6.6.8 Convergent Validity	71
6.6.9 Discriminant Validity	72
6.6.10 (a) Heterotrait–Monotrait Ratio (HTMT)	73
6.6.1 (b) Fornell–Larcker Criterion	74
6.6.2 (c) Cross-Loadings	74
6.6.3 Summary and Interpretation	75
6.6.4 Collinearity Diagnostics	76
6.6.5 Rationale and Rule of Thumb	77
6.6.6 Interpretation	78
6.6.7 Summary	78
6.7 Path Coefficients and Explanatory Power	79
6.7.1 Structural Path Coefficients	80
6.7.2 Interpretation of Direct Effects	81
6.7.3 Interpretation of Moderating Effects	82
6.7.4 Explanatory Power of the Model (R^2)	82
6.7.5 Summary and Theoretical Implications	83
6.8 Effect Sizes (f^2) and Relative Impact	84
6.8.1 Purpose and Conceptual Background	85
6.8.2 Results and Interpretation	86
6.8.3 Discussion of Key Effects	87
6.8.4 Relative Prioritization of Predictors	88
6.8.5 Managerial Implications	89
6.8.6 Summary and Integration with Previous Findings	89
6.9 Model Fit Indices	90
6.9.1 Rationale and Theoretical Background	90
6.9.2 Empirical Results	91
6.9.3 Interpretation of Model Fit	92

6.9.4 Integrative Evaluation and Contextualization.....	93
6.9.5 Summary	93
6.10 Significance Testing.....	94
6.10.1 Overview and Purpose	94
6.10.2 Empirical Results	95
6.10.3 Interpretation of Direct Effects.....	96
6.10.4 Interpretation of Moderating Effects	97
6.10.5 Theoretical and Practical Implications	97
Chapter 7 DISCUSSION	99
7.1 Introduction	99
7.2 Discussion of Key Findings	99
7.2.1 Operational Transparency & Reliability (OTR)	99
7.2.2 Service Efficiency (SE)	99
7.2.3 Customer Satisfaction (CS).....	100
7.2.4 Perceived Ease of Use (PEOU) and Perceived Usefulness (PU)	100
7.2.5 The Insignificant Role of Firm Size as a Moderator	101
7.3 Integration with Theoretical Framework.....	101
7.3.1 Practical Implications	101
7.3.2 Contributions to Knowledge	102
7.3.3 Summary	103
Chapter 8 CONCLUSION AND RECOMMENDATIONS.....	103
8.1 Introduction	103
8.2 Summary of Research Objectives and Key Findings	103
8.2.1 Strengthen Organization and Technical Readiness (OTR) as the Primary Adoption Driver.....	104
8.2.2 Use Digital Appointment Systems to Improve Service Efficiency	104
8.2.3 Actively Manage Customer Satisfaction Through Digital Scheduling	105
8.2.4 Enhance Perceived Usefulness (PU) Through Performance Oriented System Design	105
8.2.5 Improve Perceived Ease of Use (PEOU) to Support Employee Acceptance	106
8.3 Theoretical Contribution.....	106
8.4 Apply a Uniform adoption strategy regardless of firm size	107
8.5 Policy Implications	109
8.6 Limitations of the Study.....	110
8.7 Recommendations for Future Research	110
8.8 Conclusion.....	111
8.8.1 Integrated Conceptual Framework.....	111
8.8.2 Key Findings	112

8.8.3 Theoretical Implications.....	112
8.8.4 Methodological Contributions	113
8.8.5 Practical Implications	113
8.8.6 Broader Significance	113
Chapter 9 SUMMARY OF KEY CONTRIBUTIONS.....	115
9.1 Introduction	115
9.2 Theoretical Contributions	115
9.2.1 Extension of the Technology Acceptance Model (TAM).....	115
9.2.2 Empirical Validation in a New Sectoral Context.....	116
9.2.3 Integration of Technology and Service Paradigms	116
9.2.4 Insights into the Role of Firm Size.....	116
9.3 Methodological Contributions	117
9.3.1 Application of Comprehensive PLS-SEM Procedures.....	117
9.3.2 Integration of Moderation and Predictive Analysis	117
9.3.3 Empirical Evidence from a Developing Country Context	118
9.4 Practical and Managerial Contributions	118
9.4.1 Strategic Roadmap for Digital Transformation	118
9.4.2 Guidance for Technology Developers	118
9.4.3 Implications for Policymakers and Industry Bodies	119
9.5 Social and Developmental Contributions	119
References	120

List of Figures

Figure 1-Conceptual Model	35
Figure 2-Measurement Model.....	57
Figure 3-Structural Model.....	59
Figure 4-1.20.14 Path Model (Updated based on SmartPLS results)	62
Figure 5-1.20.14 Path Model with Bootstrapping (Updated based on SmartPLS results).....	63
Figure 6-Construct Reliability and Validity.....	66
Figure 7-Convergent and Discriminant Validity 1	69
Figure 8-Convergent and Discriminant Validity 2	69
Figure 9-Convergent and Discriminant Validity 3	70
Figure 10-Convergent and Discriminant Validity4.....	70
Figure 11-Convergent and Discriminant Validity 5.....	71
Figure 12-Collinearity Diagnostics	76
Figure 13-Path Coefficients	79
Figure 14-Explanatory Power	83
Figure 15-F square	85
Figure 16-Model Fit Indices	90
Figure 17-Significance Testing.....	94

List of Tables

Table 1- Measurement Indicators and Literature Alignment	34
Table 2-Constructs and Measured Indicators.....	39
Table 3-Mapping Measured Indicators to Survey Questionnaire	41
Table 4-Hypotheses Justification Table	42
Table 5-Beauty & Aesthetic Service Centres in Sri Lanka by Province.....	46
Table 6- Internal Consistency Reliability	67
Table 7-Convergent Validity	72
Table 8-Discriminant Validity	73
Table 9-Discriminant Validity — Fornell–Larcker Criterion.....	74
Table 10-Inner Model Collinearity Statistics (VIF Values).....	77
Table 11-Structural Path Coefficients.....	81
Table 12-Explanatory Power	83
Table 13-F square Interpretation	86
Table 14-Predictors of DASA.....	87
Table 15-Model Fit	91
Table 16-Bootstrapped Path Estimates	95