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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DECLARATION

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is entirely my own and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources).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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