POTENTIALS OF DEVELOPING AI SOLUTIONS IN THE SRI LANKAN BANKING INDUSTRY

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Thesis submitted in partial fulfillment of the requirements for the degree Master of Business Administration in Information Technology

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DECLARATION

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The above candidate has carried out research for the Masters thesis under my supervision.

…….

Dr. Chathuranga Hettiarachchi

Signature of the Supervisor Date: 10th July 2024

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ABSTRACT

Banks are chasing AI-based implementations to gain a competitive advantage and benefit in bank operations. In addition to improving fraud detection and regulatory compliance, these deployments are thought to lower operational costs, lower risk, enhance tailored client experience, enhance loan and credit decision-making, automate the investment process, and so forth. While the world banking industry has gone so far with AI implementations, it is interesting to investigate where the Sri Lankan Banking industry is today with AI and the potential of effectively developing AI solutions in the Sri Lankan banking industry. This research has addressed this problem via eleven interviews with Sri Lankan banking industry experts in different banks and one AI-based IT company that works with banks. This research was completed using the qualitative analysis method influenced by the Straussian grounded theory. This study's data came from a series of observations and interviews. The current usage of AI in Sri Lankan banks is observed mainly with chatbots on websites. Additionally, experimental AI usage, including customer behavior analysis, customer onboarding, and loan portfolio management, is observed through research data analysis. AI in Sri Lankan Banks is driven mainly by competitor pressure. With current implementations, the Sri Lankan banking industry is at the "Active level" of Gartner's AI maturity model. There is far more potential to grow ahead with AI implementations. Challenges identified in AI implementations in Sri Lankan banking include security-related regulations & compliance, knowledge gap (internal, outsourcing), Data availability, and return on investment. This research also presents recommendations for effectively integrating AI Solutions within the Sri Lankan Banking Industry.

Keywords: AI, Banks, Sri Lanka, Grounded Theory, qualitative research

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LIST OF ABBREVIATIONS

AI	Artificial Intelligence
SL	Sri Lankan
ML	Machine Learning
LLM	Large Language Model
CBSL	Central Banks of Sri Lanka
TRI	Technology Readiness Index
TOE	Technology-Organization-Environment Framework
ROI	Return on Investment
R&D	Research and Development
PoC	Proof of Concept
AIA	Artificial Intelligence Act
FTC	Federal Trade Commission
NIST	National Institute of Standards and Technology
TAI	Trustworthy AI