Factors influencing Digital Transformation Success: A Study on a Sri Lankan Commercial Bank

Swarnalatha Madanayake[1] and Shanta Rajapaksha Yapa[2]

Abstract

The purpose of this research was to identify the most influencing factors to the success of Digital Transformation (DT) journey of a commercial bank in meeting the digital savvy, dynamic customer demand in the banking business. The study has focused on the predominant stages of Digital Transformation, various theoretical models related to DT, the influence of the DT over Banking Industry, Benefits, Challenges and Barriers of DT along with various internal factors influencing Success of DT. The expansion of the DT phenomenon at national level over the years with the regulatory influence has urged Commercial Banks to digitally transform to be in the competition. The low success rate reported consistently for a considerable period in the selected commercial bank was identified as the Research problem for the study. The respondents have been selected from the population of managerial level employees and the scaling down of DT success had been concentrated on the empirically used "Digital Maturity Model". The conceptual framework consists of four independent variables contributing to DT success most cautiously selected by researchers from the previous literature on the higher frequency in simultaneous research. The Author recommends the strategies and measures to increase the low success rate reported in the DT initiatives of the Banks such as (1) Recognizing Change and urgent response (2) Strategic Alignment (3) Reinvigoration of Culture (4) Training and upskilling workforce (5) Business perspective Technology disruption (6) Significance on Data Culture and (7) Digital Product Development. The research significantly covers the theoretical gap in the DT discipline in local context and by assessing the internal factors subject to inside-out approach anticipating making a reference to support sustainable future growth in the Digital Business in the Banking Industry despite the limitations of individuals researching on a typical discipline like Digital Transformation.

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[1] Cardiff Metropolitan University, United Kingdom, Email: swarnamadanayake@gmail.com
[2] SLIIT Business School, Sri Lanka Institute of Information Technology, Malabe Sri Lanka

Introduction
Expansion of Digital Transformation

Digital Transformation (DT) is a rising tide occurring in an unprecedented way (Angel Gurría, 2017). In the recent past, technological advancements have uplifted global business interest by challenging the conventional business models. DT fundamentally changes how an organization operates and delivers value to their customers by integrating digital technology into all business areas. Further, DT is a cultural change across the organization challenging the status quo, outdated operating models, more experiments and to face the failures comfortably (Project, 2016).

DT is a long-term process, and it is a constantly evolving moving target for today's organizations that should be backed by a viable strategy subject to regular evaluation (Newman, 2016). DT has become a trending topic around the world with the rapidly increased usage of new disruptive technologies across many industries. According to (Wells, 2022), DT is no longer considered as an option but a priority to remain competitive in the market to create and evolve new businesses opportunities often mostly over products and services in a bank to cater customer expectations.

Banking Industry relies on DT initiatives (Chauhan et al., 2022) as it enables them to bring in innovative practices, new business models, increase cross selling opportunities and leverage on booming internet usage to manage customer relationships and offer value (Nadeem1, 2018). Further, DT in banking predominantly entails turning to offer online and digital business simultaneously with larger number of back-end changes in human resources, business efficiency and processes due to which banks should follow a top-down approach in their digital business initiatives (Everfi.com, 2021).

Banks are compelled to invest and develop their digital platforms to create a seamless customer experience subsequent to the favorable shift

in the banking industry to serve clients remotely (Joshi, 2019). increasingly due to customers becoming more conscious on time factor due to their busy schedules and ever since the new norm of "Digital Banking" embraced by the industry (FT, 2019). In accordance, Central Bank of Sri Lanka (CBSL) launched the "2020-Year of Digital Transactions – Cash Vade" national level Digital Business Promotion with the aim to encourage significant percentage of public to become digitally engaged by using digital payment channels such as mobile apps, the Lanka Quick Response (QR) Code, Credit and Debit Cards (CBSL, 2020).

Despite the investment constraints, commercial banks of Sri Lanka are also in the process of enhancing their digital presence to achieve better revenue growth by optimizing the operational processes to gain competitive advantage. Further, the COVID 19 pandemic has accelerated the DT around the world. The rapid customer adoption of online banking has created a new urgency for banks to meet their digital transformational goals (ncr.com, 2021). Trending Insights of Executive Epiphanies of IBM reveals the acceleration of Digital Transformational activities as 59% and organizations completing their pipelined DT initiatives previously encountered resistance as 66% globally (IBM, 2020). Digital Transformation in the current conditions has been dramatically amplified over evolving customer requirements for business leaders to brush aside legacy systems and old barriers due to unprecedented speed of change taking place in technology.

Consequent to compelled embarking of commercial banks into digital the subject commercial bank also has made certain investments to meet their strategic aims of providing the best digital experience to customers with modern products and services powered by cutting edge technologies.

The study endeavors to understand the current success level of DT, to identify the internal factors influences success of DT, to ascertain the relationship of each factor with the success of DT and to recommend strategies to enhance growth in digital business which denotes as a strategic level priority as primary Research Objectives. Simultaneously, researcher attempts to cover the theoretical gap in the

context of Digital Business in Banking Industry with special reference to Sri Lankan banks suggesting gathering data from few other commercial banks as a future research.

Defining Research Problem

Digital Transformation Drive in any organization refers to a significant shift within the Organization that has an impact on its Culture and Strategy (Matt, 2015). It is a fact that a bank must re-align the internal culture, its corporate business objectives derived from the strategy and agile operational processes to achieve competitive strategic positioning and to re-gain their previous market standing (D Schuchman & Seufert, 2015). in the transformational journey.

The deprived customer adoption to Digital Banking channels in the respective Commercial bank has caused injustice to the huge investments made on new technology, mobile and internet banking systems infrastructure anticipating penetrating a greater number of customers to digital and parallelly to downsize the operational costs. The declining profits for consecutively in the recent past, losing their market share has urged the requirement of carrying out a root cause analysis by way of quantitative research and to ascertain strategies to increase DT Success. Author has applied Inside-Out Approach (Bloor, 2020). to evaluate the current drawbacks, capacities, capabilities, and available resources eventually to promote digital banking channels by persuading its own human capital aggressively than ever before to capture the market opportunities and to implement its strategic plan, which has indeed become a stakeholder interest.

Henceforth, the study has been developed to understand the most influential factors influencing the success of DT through existing empirical studies, most appropriate to the banking industry to recommend remedies for service quality issues, achieving digital goals and to minimize the longer pay back periods.

Significance of the Study

The main significance of carrying out the research at the respective commercial bank was the criticality of low success rate of DT initiatives compared to competitors. The internal information gathered over Digital Penetration and the competitor analysis based on

published data of CBSL being the regulator had evidenced the urge of carrying out the research due to the significance of the DT phenomenon adds value to organizations.

According to Global Surveys of McKinsey & Company, DT reshapes the organization to capture the benefits and to be trendy with the competitors pursuing higher-scaled favorable change efforts. A latest survey has revealed that over eight respondents out of ten have stated that their organizations take efforts in DT, however it has been elusive due to the complexity. And the cost involved (Company, 2018 October).

It is worthwhile for any organization to investigate how firms and banks globally and locally handle transformation to re-define the DT strategy (Sabine Berghaus, 2016). It was discovered that there is a theoretical constraint in terms of internal factors affecting DT done from a bank's perspective, as well as a lack of emphasis on the Sri Lankan Banking Industry, which made it necessary to conduct this study using an Inside-Out Approach (Bloor, 2020).

The regulator, CBSL has since strengthened promoting digital service channels by introducing the guide "Digitally Empowered Employees - 2020" for local banks (CBSL, 2020) and declared the adoption to digital banking as a crisis preparedness in the Road Map 2021 report (Deshamanya Professor W D Lakshman, 2021) Further the "New Normal" followed by the Pandemic resulted new ways of serving customers, new working processes for bankers creating a paradigm shift in the banking culture which has required banks to re-consider and re-evaluate their business models.

Also, it has been proved that the local banks who led the DT initiatives report remarkable growth despite the pandemic (Echelon, 2021). In the circumstances, the requirement of fulfilling the knowledge gap in digital competency in the local arena and as a guide for incumbents and start-ups it is significant to carry out an extensive study contributing further to the industry, although the study has been limited to one single commercial bank.

Literature Review

The following literature related to DT reiterates the most influential factors that contribute to success. Cautiously selected four main factors have been selected to verify the relationship favorably restricting the scope to the Digital Disruption in Banking Industry.

Industry on Digital Transformation

Digital Transformation is a phenomenon that has been critically researched by scholars, recognized bodies, and consultancy groups globally. The evolvement of the DT begins in the early 1990s with the computerization of the processes and from the mid-2000s it has strongly influenced Business to Customer communication through various social platforms and smart devices. DT has become a trending notion in today's context because of all the industries attempt to discover and exploit technological benefits by keeping the "Customer at the Centre"(Zarzadzaniu, 2019).

From the lens of an average person, DT can be referred to as a change that takes place in the aspects of human society due to application of digital technologies. Simon Chan summarized DT under five perspectives such as Customer Experience led DT, Operational DT (COO/CIO), Cost centric DT (CFO), Business Model DT (CEO) and World view DT perspective (Chan, 2018).

DT is quite an expensive and complex process due to the involvement of strategic transformational processes which derives from the Vision of the organizations and followed by drastic Change Management (Matt, 2015). Business Leaders require an instrument to develop a DT strategy with possible action areas from the current to expected status which creates a ruling to form objectives for the respective teams involved (Sabine Berghaus, 2016).

Sub Sections of this chapter have been devoted to describing literature on Phases of DT, Theoretical models, DT and Banking Industry, Barriers, Challenges and Benefits of DT and most importantly to understand the influencing factors to the success of DT in the banking industry.

Stages of Digital Transformation

The Scoping review approach identifies three phases of DT by conceptualizing the different fields such as Information Systems, Marketing, Innovation and Strategy as Digitization, Digitalization and Digital Transformation (Peter C Verhoef, 2019). Most of the literature confirms that the first two phases has been incremental to achieve DT and the last as most pervasive stage. Digitization is simply encoding of analog data into a digital format (Lebbeke & Picot, 2015). Digitalization refers to how information or digital technology could be used to change the existing business processes to new. Digitalization allows more coordination between processes to create valued customer experience and enhance relationships (Pardo, 2017). The last stage, Digital Transformation is an organizational wise digital change which creates a new business logic and ensures cost reduction to end up in higher profits.

Based on the complexity, prioritizing, and likely chronology of projects, Sabin's empirical study "Stages in Digital Business Transformation" deduces five stages. (1) Encourage and support (2) Create, and construct (3) Commit to change (4) User-centered and elaborated procedures, and the final stage (5) Data-driven businesses that are making progress toward DT success (Sabine Berghaus, 2016). Systems Implementation, Social Network Amplification, New Process Adoption, New Technology Adoption, and Agile at Scale are the primary focal areas and steps toward change in corporate organizations, according to Dr. Kotter's book "Change" (Kotter, 2021) In his journey of creating a Top-Down culture of empowerment that encourages new ways of thinking, learning, experimentation, and most importantly innovation, Brian Solis breaks down DT into six stages: Business as Usual, Present and Active, Formalized, Strategic, Converged, Innovative, and Adoptive (Solis, 2019).

Theoretical Models related to DT

The literature confirms many significant theoretical models related to DT such as Digitization Piano, Digital Orchestra, Digital Reinvention, Digital Innovation Strategy (Nwaiwu, 2018) and Digital Excellence Model explaining sustainable strategic positioning through disruptive

technology (Zarzadzaniu, 2019). However, "Digtial Maturity Model" (DMM) and "Digital Readiness Assessment" (DRA) are the most used by the biggest consulting agencies such as EY, Deloitte, KPMG and McKinsey (EY, 2021).

Digital Readiness Assessment Model (DRA)

EY recommends a DRA that includes seven key areas: (1) strategy, innovation, and growth (2) customer experience (3) supply chain and operations (4) technology (5) risk and cyber security (6) finance, legal, and tax (7) people and organizations. The sections indicate the level of readiness to determine digital strengths, weaknesses, and gaps to be filled by benchmarking based on the size of the company, industry, and location of the firm. Because of the frequency of the evaluations and the number of businesses who utilize it, the model has become more granular (Zarzadzaniu, 2019). In another empirical study, DRA is described as readiness of workforce, institutions, industries, or countries in changing and using technology (Reza Ashari Nasution[*1], 2018).

Digital Maturity Model (DMM)

DMM is a   tool that allows for an assessment of the current situation as well as an indicator of progress towards DT maturity (Becker J, 2009). The model has been a consequence of current mega trends calling all organizations to become digital and redefining the way they operate. Based on the data and customer engagement, Deloitte's Consultancy Agency built a DMM with five assessment areas. (1) Customer, (2) Strategy, (3) Technology, (4) Operations, and (5) Organization & Culture are the five categories. The main purpose of the model is to identify the issues in the stages of DT and ensure guidance in the change process. In overall DMM acts as a structure or a road map to achieve expected DT success by transformational business leaders (Zarzadzaniu, 2019). MCIS 2016 Proceedings presents, nine dimensions of DMM because of seventy literature reviews, real focus groups and eleven exploratory interviews with digital decision makers and transformational leaders. (1) Customer Experience (2) Product Innovation (3) Strategy (4) Organization (5) Process Digitization (6) Collaboration (7) Information Technology (8) Culture & Expertise and (9) Transformation Management have been

categorized from the open coded set of criteria gathered (Sabine Berghaus, 2016).

Digital Business 2018 Playbook by Forrester introduces five competencies by benchmarking the digital journey as a development of the four dimensioned DMM 4.0. (Forrester, 22 Jan 2016). The report titles out these dimensions as "Tell-tales" and denotes as (1) Vision and Strategy (2) Culture (3) Structure (4) Technology and (5) Talent. It is a fact that the Digital Maturity drives business growth and Forrester digital business surveys analyses the differences between each maturity level, the most influential factors for the success and to create an industry benchmark (Fenwick, 2018).

Digital Transformation and Banking Industry

Today's context of banking is "Anytime Anywhere Banking". Present customers expect a unique sophisticated digital-savvy banking experience covering 360-degree views related to their desires and on unstated requirements (Venkateswari, 2020). To capitalize on the opportunity amongst financial services institutions, banks require to be competitive to cater just in time and just in case customer solutions. Further, Digitization of the Banking sector backed by DT initiatives impacts on overall economy (Alexandra Horobet, 2020).

DT in banking faces more pressure due to evolving demands and multidisciplinary needs of modern customers. Therefore, Banks should have robust, innovative, secure, and optimized systems. These developments are urgently needed for banks to digitally transform by reinventing old legacy systems and investing in new disruptive technologies to navigate and capitalize on the challenges (Stone, 2019) Although DT is a necessity two thirds of the customers still prefers to visit branches physically. Therefore, banks must choose between Brick and Bricks-and-Mortar, Digital or both in the transformational eco-system according to evidence (Banker, 2019).

The impact of Covid 19 Pandemic has made banks to miss financial targets in a long term and banks must prepare for this long haul by developing a detailed strategy to change the business models, more appealing value offerings and enhancing end-to-end centralized

processes like 24/7 online banking and real-time transactions to achieve growth and customer satisfaction (IntellectSoft, 2020).

According to literature "Digital Banking" has been explained as sale of financial products and service using digital channels, exploiting cutting edge technology to cater swift and suitable customer needs, automation of processes and omni-channel solutions as the future (Carmen Cuesta, 2015).

Focus on new channels, the whole branch network becoming online and aggressive sale of digital products are pre-requisites of digital banking and the achieving of targets set under them would be the Return on Investment (Carmen Cuesta, 16 July 2015). To be relevant in banking in the future, banks must become an active part of a customer's digital life. The customer will evaluate financial institutions by the "Experience".

Back Base White Paper suggests the Digital-first framework with four pillars (1) Omni Channel Banking (2) Modular Banking (3) Open Banking and (4) Smart Banking as the future of banking which will limit Onboarding to a bank to few clicks and the providers will be able to switch in a heartbeat (Base, 2021).

Re-skilling the current work force to push and promote customers to embrace digital banking channels is the other main aspect under DT. This skill gap has been realized by the leaders during the "Working from Home" consequent to the "New Normal" of the Pandemic which encouraged to use digital banking channels at large by both customers and employees (FinExtra, 2020). KPMG Banking Report reiterates the move away from branch-based banking with less transactions and rapid increase in contact less payment methods and cards which ensure safer means for society. Slimmed branch networking, new integrated E-Commerce, re-evaluated call centers will be the results in the future banking industry. Therefore, the banks must accelerate their DT initiatives at an aggressive and unique variant level (KPMG, Nov 2020).

Barriers and Challenges of Digital Transformation

DT has been considered as the most challenging in all industries in the recent years as it involved a fundamental shift in subject organizations. Uncertain vision and objectives, a lack of digital leadership, an inflexible organizational culture, legacy systems that make it difficult to incorporate new technology, and a lack of employee involvement along with resistance to change have been identified as major roadblocks (Natalija Kokolek, 2019; Mirković & Jalena Lukic, 2019).

Further, continuous innovation has been proved mandatory to overcome challenges connected with DT in the field of banking due to increased competition, regulatory boundaries, outdated mobile experiences, high profile security breaches and vast cost involvement to cater rising customer expectations (Wingard, 2021 - Hitachi Solutions).

Bloomfire.com suggests one of the main barriers for banks to digitally transform is the increased cost of digital investments. Complexity in the infrastructure to handle mergers and acquisitions, Culture rigidity, lack of buy-in from C-suite leadership, Lack of qualified project managers and scattered knowledge too have been highlighted in addition (Cupp, 2021).

Benefits of Digital Transformation

DT requires the usage of Internet based modern tools and technologies to embrace the systems and processes. According to Gartner 2020 mid survey followed by Covid 19 Pandemic, more than two thirds of Board of Directors worldwide have accelerated their digital transformation roadmaps. Increased revenue, productivity, Cost efficiency, Improved customer engagements, Greater innovation & agility and consistent relevancy are some encouraging key benefits (Pratt, 2021).

MDPI Journal endorses that DT enables forming a Digital Culture in an organization which forces continuous digital learning through strategic improvement and increasing agility in faster time to target markets. DT improves efficiency, productivity and profitability which enhances market share and automation. DT supports reduction in cost

by optimizing appropriate technology and improves operational excellence which leads to enhanced customer experience (Sorinel Căpus, 2021).

Measuring DT Success

Measuring the DT success is mandatory for organizations to ascertain the return on their investments over new technologies resulting in longer pay back periods and service quality issues arising out of low success rate. Different studies highlight different indicators to measure success such as Operational efficiency, Customer Experience and New value creations (Marcolivio, 2021).

Figure 1: Model-Key Factors of DT
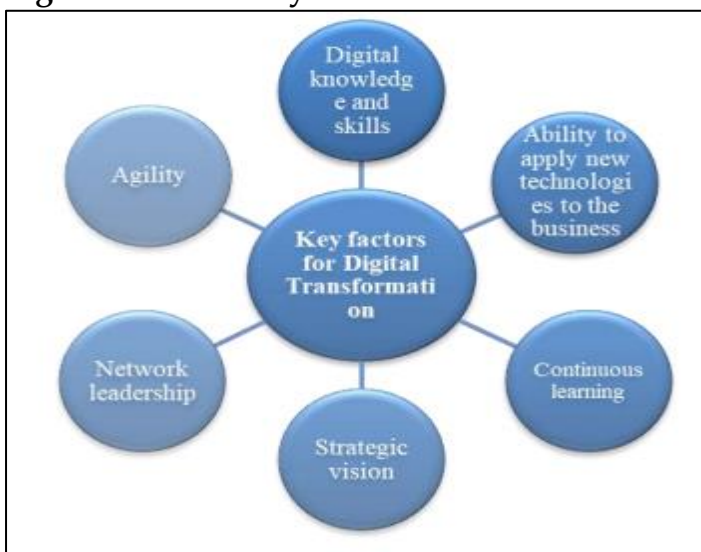
Source: Natalija Kokolek (2019)

Tolboom denotes, Value Proposition, Channel Measures, Cost Structure measures and cost of digital initiatives as dimensions (Tolboom, 2016). Further New Customer conversions, Percentage of business process enabled by Artificial Intelligence, Successful Innovations brought to market have been considered are highlighted success metrics by Enterprise.com (Overby, 2021).

Most of the digital initiatives have longer pay back cycles and short-term intangible outcomes in customer experience. Measuring Return on Investment based on the net present value is limited in the digital

context, and World Economic Forum (WEF) and Accenture has suggested certain key approaches to follow (Badic, 2019).

Justification of Most Influencing Factors

The term DT can be categorized into three perspectives as Organizational, Technical and Social (Tratkowska, 2019). According to Kokolek it is Organizational and Contextual based on within Organization and global environments respectively. Based on the use of technology the Organizational category has been categorized as (1) External (2) Internal and (3) holistic (Natalija Kokolek, 2019). External dimensions will be based on Customer Experience and the internal dimensions depicted therein are reflected in Figure 1.

It is evident that researching on the industry specific and organization specific factors are imperative to measure DT success (Bruce Weitnelt, 2018) The following selected internal factors have been further scrutinized in response to the research problem persists at the respective commercial bank subject to Inside-Out approach which ensures sustainability (Bloor, 2020).

The authors have selected the most influencing factors as Independent Variables (IV) consequent to studying the intext cited literature analyzing the various sub dimensions conceptualized in the Operationalization Table depicted in Table 1. Figure 2 denotes the frequency of the independent variables tested in the extant literature used for the study.

Figure 2: Justification of Selecting IVs
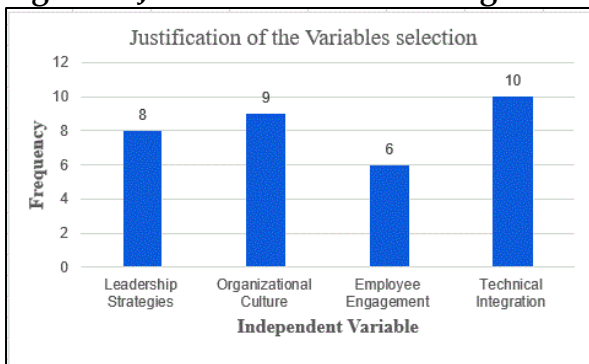
Source: Authors' compilation

Leadership Strategies

To lead the DT process, organizations must have a strong digital leadership strategy that is backed by powerful and impactful leaders with transformative talents (Dr. Mouhamadou Sow, 2018). According to a global survey titled "Unlocking Success in Digital Transformation" confirms that having digitally competent leaders, developing future workforce capabilities, empowering employees to work in new ways and conveying digital goals using conventional and digital methods ensures a successful DT (McKinsey, 2018).

Recognized Global Surveys highlights the importance of managing the people and organizational components of the business above technology, along with forward-thinking leadership, talent development and a well-defined digital strategy (Brand, 2020) In his discussion paper, the author Muller explains the types of leadership abilities that are needed in the Digital Age as technical, human, and conceptual leadership skills (Müller, 2018) According to McKinsey Digital Insights, the DT will be mostly a reinvention and should be originated downward and the Chief Executive Officer (CEO)/COO must make critical decisions to make the process succeeded (Peter Dahlström, 2017).

CIO is the key figure in effectively explaining and reinforcing the benefits of the change related to DT. The book "CIOs and the Digital Transformation" allows academics and managers to identify practical answers for their DT journeys while keeping the CIO at the core (Rizzo, 2018). Leaders unlock the digital effect in the digital age by creating platforms for business structures, strategies, and upskilling workers, as well as generating new digital tactics (Sainger, 2018).

MIT Sloan's "Strategy, not Technology, Drives DT" highlights the desire of employees to be governed by digitally savvy leaders, as well as the importance of setting a digital agenda from the top and developing skills to carry out the strategy (Gerald C. Kane, 2015). Prof. Dr. Phil outlines a "Digital Competence Management Model" for digital leaders to use in managing the DT (Reinhardt, 2018).

Organizational Culture

The concept of "Culture" encompasses both implicit and explicit factors like attitudes and norms, as well as structures and practices that connect to twelve cultural aspects that ensure DT success (Eva Hartl, 2017). Instilling a Digital Culture is very vital in a digital transformational environment due to three main reasons. It empowers employees to deliver end results faster, attracts talent and reveals that digital culture is subject to the risk of failure. There is no standard for Digital Culture which encourages employees to look external to empathize customer needs, increases delegation over control, enhances boldness of taking risks, failing and learning the lessons faster, emphasizes more action than planning and further tends to believe in teamwork and collaboration than individualism (Jim Hemerting, 2018).

"It's not a Digital Transformation without a Culture Transformation," LinkedIn states, emphasizing the importance of Innovation, Flexibility, and Agility in dealing with change throughout DT. It identifies six crucial elements for a successful DT (Laubscher, Aug 2020). The DBS Bank, Singapore, the world's best bank in DT confirms how adoption of an agile Culture followed by shift in mindset had been significant to their success (Henderson, 2019) According to Jabil's DT Trends Survey 2018, 74% respondents have confirmed that the changes in Culture are more backbreaking than technological changes (Jim Reznicek, 2018).

The top difficulty for organizations to fulfill digital priorities, according to McKinsey Research 2016, is "Culture." According to the 2018 Survey of Business in the Retail Industry, 80% of digital leaders have made initiatives to change corporate culture to achieve DT success (Brener, 2020). Sajee Sirikraj, the author, describes Culture as a complex subject that is difficult to express (Sirikraj, 2000). The conceptual framework of International Review of Management & Marketing looks at Creating a Sense of Urgency, Communicating, and Overcoming Resistance as cultural factors (Hie, 2019).

Employee Engagement

It is a proven fact that the DT relies on people and "Employee First Strategy" leads to a successful DT (Salmeron, 2020). Many

Organizations fail in their DT initiatives due to over-looking the most important element being people despite spending large scale on technological aspects to achieve DT success. Employees buy-in has been reiterated mandatory even in inculcating a small change into the organizational structure in the journey of transforming. The senior management should clearly communicate the focus areas to the employees to get their maximum engagement which is the key to be succeeded (Whelen, 2020). In the process of DT, the author, Padhi, addresses several models that use multiple factors such as environment, amenities that keep people engaged, work-life balance, and mutual benefits (Padhi, 2015).

The influence of Employee Engagement (EE) towards Digitalization to happen productively employees should be inspired, should be made stress free which will lead to be innovative, creative, and relaxed, should be felt valued and involved and should have an emotional engagement where they feel that their contribution to digital change is powerful with carrier growth opportunities (Leticia dos Santos, 2020).

As per Harter et al, 2002, EE is related to being involved, committed, and satisfied with work which will motivate them resulting in dedication and enthusiasm (Dos Santos, 2020). The influence of EE on DT is based on variables such as Self Efficacy, Perceived Leadership, Work Stress, and Turnover Intentions of bank employees as per the Indonesian banking industry (Shinta Winasisa, 2020). One of the challenges of DT from the perspective of employees is that most people are not resistive to change for a variety of reasons, including fear of being replaced, underestimating their ability to succeed and the secondary influence on their job functions (Jim Reznicek, 2018).In a DT process, employees' attitudes and actions become part of the technology (Reza Ashari Nasution[1], 2018) Upskilling staff makes the most sense in a Digital Business journey (Minnenci, 2017) through communication and empowerment.

Technology Integration
Technology drives and facilitates change during DT in an organization (Michael Bender, 2018). Digital Strategy backed with new technology is the main prerequisite for DT which enables efficient ways to be responsive, targeted and personalized in the customer experience.

Digital Technology evolves improved revenue through Business Intelligence, conversational Artificial Intelligence for 24X7 customer service and 360-degree customer experience as newest DT consequences. Technology is the means to provide competitive advantage and the change block should be addressed to bring the necessary transformation (Briggs, 2019).

Technology Integration in banking sector is a partnership between mind and machine to apply technology effectively to embrace innovation (Jadgal, 2021).User Acceptance in Technology in a digital culture has been identified as a key priority for successful DT in the banking industry (Giatsidis, 2019). Digital Technology plays a major role in DT and it is a "Rethinking of Technological advancements together with People and Processes to increase business performance". It has found that the sustainable DT becomes by integrating the new digital technologies with the existing conventional IT systems and processes and not by new technologies alone (al Khan, 2017). Technology has been dubbed the "Live Wire of DT," but it is a costly endeavor that presents various financial burdens for businesses (Raiker, 2020).

A local study on DT in Sri Lankan Banking and Finance Industry examines a "Digital Technology Adoption Model" based on numerous ideas such as technical knowledge, digital technology, competency and market response to technology are the four categories (Wickramasinghe, 2019). The preparedness of technology infrastructure has been identified as a critical facilitator in optimizing digital investments in the DT (Bruce Weitnelt, 2018). MIT Sloan Management Review 2015 and Deloitte have revealed the importance of Technology Integration aligning with Strategy for achieving a successful DT (Illa, 2018). Emerging technologies include artificial intelligence (AI), augmented reality (AR), and block chain. The Internet of Things (IoT) summarizes six technologies that enable DT whilst acting as a catalyst (Dilip Sarangan, 2017).

Methodology & Experimental Design
Research Methodology is the process carried out to solve a strategic level research problem from a specific discipline backed with a work

plan involved in the learnings of the various research methods based on collected data and information (Goundar, 2019). Further it supports decision making by engaging in the Cause-and-Effect relationship between various independent variables which results behavioral movements and trends depending on the population, sample design and size connected with the self-administrated questionnaire prepared on the operationalization table (Bbamanthra, 2015) under Quantitative Research Methodology.

Conceptual Framework

The Conceptual Framework has been constructed to verify the relationship between the four selected independent variables identified through the literature review and the dependent variable.

Figure 3: Conceptual Framework
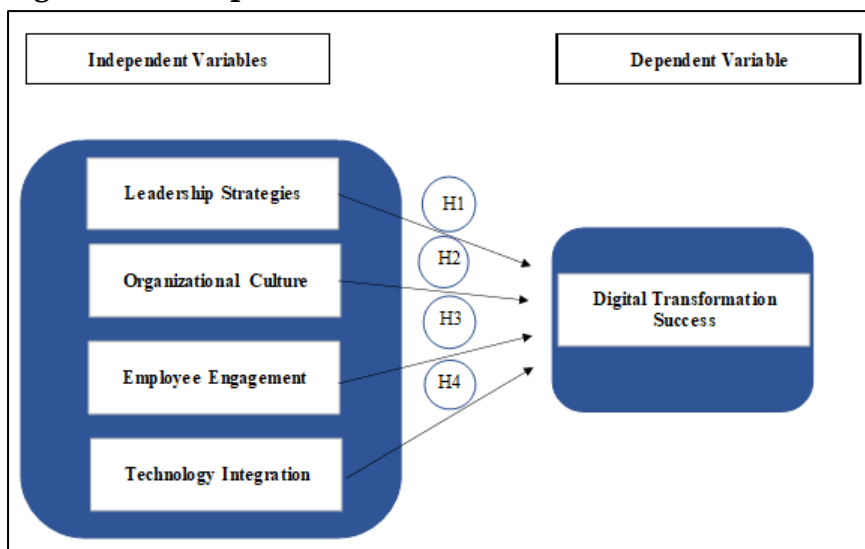
Source: Authors' compilation

Development of Hypothesis

Testing hypothesis is a formal method of verifying the opinions of sample population to interpret research findings to ascertain whether the study supports the laid down literature (Bevans, 2021).

Accordingly, the following hypothesis were developed to test and verify the relationship between the four independent variables and the dependent variable, as depicted in Figure 2 above.

Hypothesis 1
H1n   - Leadership Strategies have no relationship with DT Success
H1a   - Leadership Strategies have a relationship with DT Success

Hypothesis 2
H2n   - Organizational Culture has no relationship with DT Success
H2a   - Organizational Culture has a relationship with DT Success

Hypothesis 3
H3n   - Employee Engagement has no relationship with DT Success
H3a   - Employee Engagement has a relationship with DT Success

Hypothesis 4
H4n   - Technology Integration has no relationship with DT Success
H4a   - Technology Integration has a relationship with Success

Research Design
Population, Sample Size and Sample Design
To investigate the Research Problem of low success rate in DT success reported by the selected Commercial Bank, 195 Branch Managers representing the entire staff cadre has been used as the Population. Population refers to the entire cases of the research phenomenon which includes people, events, and things that researcher selects to investigate (Sekaran & Bouige, 2016).

The subject research has been conducted using convenience sampling under non-probability method (Taherdoost, 2016) since the technique permits ascertaining data in an inexpensive method during a shorter time span.

Sample size under Sample design is vital to ascertain a greater representativeness from the entire population (Sekaran & Bouige, 2016). The Sample size denotes the total number of respondents to the study and often subject to demographic factors to represent the entire population. Determining the correct sample is very vital in statistical analysis because larger samples are costly and time consuming whilst the smaller samples yield margins of error (Kibuacha, 2021). Out of the

195 population of Branch Managers, the sample size required was 130 as per the Morgan's sampling table.

Data Collection Methods and Techniques

Data has been collected through an online questionnaire which will provide quantifiable information to justify hypothesis validation to carry out the Quantitative Research. The results have been used to test the relationships status as null or alternative under the Conceptual Framework. The Primary Data for the research has been collected through the online questionnaire via a Google Form consists of five compulsory questions on Demographic factors expecting multiple choice answers, 24 Likert scaled questions (Likert 1-5 denotes Strongly Disagree to Strongly Agree) covering all aspects of the Operationalization (Table 1) including one open-ended optional question expecting short answers.

Table 1: Operationalization Table

Variable	Dimensions (Measurement - Likert 1-5)	Q.No
Leadership Strategies	Strategic Alignment	1,2
	Digital Savviness	3
	Communication	4
	Empowerment	5
Organizational Culture	Organizational Structure	6
	Change Management	7
	Mindset Shift	8
	Values & Beliefs	9
	Control Systems	10
Employee Engagement	Involvement	11
	Motivation	12
	Commitment	13
	Carrier Development	14
	Collaboration	15
Technology Integration	Infrastructure	16
	Budgets	17
	User Acceptance	18
	Data & Tech Literacy	19
DT Success (DV)	Customer Awareness to reach	20

Variable	Dimensions (Measurement - Likert 1-5)	Q.No
	Successful Innovations	21
	Customer Waiting Time	22
	New Customer Conversions	23
	Cost of Digital Initiatives	24
Open-ended Question	Any other factors influencing	25

Source: Authors' compilation

The Secondary Data has been collected from the respective Commercial Bank's internal exposed information demarcated, global surveys on DT and from other scholarly articles & Journals.

Further the data related to Global Overview Digital Report and the published data about Digital Channel usage amongst Sri Lankan Banks have been used to justify the low penetration ratios parallel to the industry. The author has reiterated consistent lower ratios by denoting at global, national and industry level.

For validity and reliability, the data was quantified using the Statistical Package for Social Science (SPSS) Version 20.0. To verify the hypothesis, data has been analyzed using factor analysis, relationship testing, descriptive statistics, reliability testing, and simple/multiple regression (Kalsbeek, 2020).

Results
Data Analysis
The online questionnaire/survey circulated amongst the population of 195 Branch Managers of the selected bank was closed for responses when the required sample size of 130 was reached within a time span of four days. The collected data was analyzed using SPSS Version 20.0 and MS Excel software.

Data gathered has been statistically analyzed to validate the relationship of generated hypotheses using various techniques such as Descriptive data analysis, Reliability to determine the validity, consistency, and Regression for validation of hypothesis (Bougie, 2016)

to make the recommendations and conclusion to the identified research problem.

All 130 respondents have attended all the questions. Further, nearly 50% of the respondents have attempted Question 25 which was an open-ended optional question to collect their independent views to increase DT success of the bank.

Data Representation

It is important and useful to Organize and display data in visual form to get an understanding of the trends and forecasts prior to analyze on statistical model (WHO, 2014) Accordingly the demographic data of the sample and a summary of responses received for each question under the variables have been gathered to obtain a visual vantage to comprehend quickly and easily.

Key Findings

Reliability Test carried out to characterize the uniformity of data reflects, Cronbach's Alpha as 0.894 for all five variables. Cronbach's Alpha has been measured as the determinant and if above 0.7 the data used can be accepted with higher reliability (Taber, 2017) Also, each variable's internal consistency reflected than 0.7 and data used could be accepted with higher reliability.

The Conceptual Framework constructed by author based on the literature had been acceptable with 67% of overall contribution of the independent variables to the dependent variable. The balance 33% consists of unknown factors influencing the DT Succuss. The impact on the DT Success from four variables are in a span of 33% to 59%. All four alternate hypothesis H1a to H4a accepted and null hypothesis H1n to H4n were rejected due to 0 level sig values.

The Table 2 below describes the descriptive data analysis, Regression and Reliability to determine the validity, consistency, and validation of hypothesis as a summary.

Table 2: Summary of Findings

Hypothesis	P value	Hypothesis Validation	Pearson correlation	R^2
H1	0.000	H1a accepted	0.614	0.376
H2	0.000	H2a accepted	0.771	0.594
H3	0.000	H3a accepted	0.665	0.442
H4	0.000	H4a accepted	0.580	0.337

Source: Authors' compilation

Discussion
Summary of the Study

The purpose of the research was to figure out the factors influencing the DT Success rates of respective commercial bank backed by longer pay back periods, non-achieved Digital banking goals and service quality issues by not meeting the expected demand to onboard customers into digital.

The respondents have confirmed that the bank is a late entrant to the digital business and as a market follower in DT passing the nascent stage. In responding to the main research objectives of identifying internal factors influencing DT success and ascertaining the relationship of each factor have been addressed under verification of hypothesis (H1 to H4) cautiously selected from frequently tested literature and data with higher reliability.

The study on "Factors Influencing success of Digital Transformation in Commercial banks" has confirmed that the most consciously selected independent variables, Leadership Strategies (H1), Organizational Culture (H2), Employee Engagement (H3) and Technology Integration (H4) has a relationship with the dependent variable, DT Success. All four alternate hypothesis proved a Strong Positive relationship towards the dependent variable according to the responses and contributed 67% to the DT Success in overall whilst the balance 33% could be due to the other factors. The significant findings have been summarized in Table 2.

The contribution of Leadership Strategy (H1) has been reflected 37.6 % for the DT success and it is significantly in agreement with the

literature. The findings have revealed that the leadership of ABC Bank should follow Pull strategies to make employees digitally conscious and play the role of a "bridge-builder" on digital Competency (Dandy George Damson, 2018) making DT a top management priority.

The Hypothesis H2 – Organizational Culture has been identified as the highest contributing independent variable as 59.4% towards the DT success. Although the respondents were positive towards transforming digitally as a bank, reinvigoration the focus on culture has become mandatory on risk averse nature and to convince employees to embrace DT openly (Gerhard Oswald, 2018).

DT must be included in core-values to occur the cultural shift required in the mindset of resistant employees to onboard customers into digital (Karin Vey, 2017).

Employee Engagement (H3) towards DT Success reflects 44.2% and the aligning digital banking goals as a carrier growth opportunity, continuous learning and development, the requirement of awareness and involvement (Becky Gronkiewicz, 2020) were significantly revealed by the responses. The fourth variable, Technology Integration (H4) has reflected 33.7% contribution towards DT success confirming the literature accurate. Further it has emphasized that Technology alone cannot transform an organization to digital since 66.3% contribution is from other factors (Boulton, 2021).

Recommendations
The following are suggested in response to the last research objective being to recommend strategies to increase DT Success rate in the subject commercial bank based on the research findings.

It is factual that these recommendations have been based on the study of low maintained DT success ratios of one single commercial bank and would be a road map for such financial institutions to streamline their digital journeys.

- Align the Digital Strategy with the Corporate Policy and create new policies encouraging DT to produce integrated digital solutions.

- Streamline the DT efforts by formulating a committee comprising C-Level management to enhance collaboration between business units currently working in silos to ensure overall progress and transparency.
- Recognize the Change Management process required and ensure bank wide commitment through appointing a Catalyst Team responsible for promoting, communicating, and monitoring consolidated digital initiatives and connected benefits along with a reward such as "Branch Digital Champion" for coordination.
- Assign Digital Banking Goals as a branch Key Performance Indicator (KPI) and consider financial or non-financial staff rewards and career growth opportunities for aggressive Digital onboarding of customers.
- Open virtual doors to Train employees on new Digital technologies to enhance job satisfaction, motivation, new skills to ensure all employees to be on the same page on DT.
- Inculcate Data Culture ethics to use data analytics in decision making. Strengthen the Business Intelligence Unit to cater the knowledge gap of senior and middle management.
- Increase the budgets on E-commerce, Social Media Management, leverage on user friendly Digital systems and financial technologies to increase digital presence.
- Create competitive advantage by initiating Online Account Opening and enhance Brand Recognition by introducing a tailor-made online product attracting the Millennials
- Conduct Customer Awareness Programs

Conclusion

The study emphasized the significance of that a strong digital strategy aligning with the corporate strategy for collaboration as a compulsory investment and understanding the strategic priority by all stake holders is vital for a successful DT (Sarika, et al., 2020). The research further contributes to evidence that it is mandatory to be proactive with the first move advantage followed by the appropriate, feasible and relevant Digital Maturity Model adopted by the respective commercial bank to achieve higher success in the Digital Transformation.

Main contribution of the study is that the Banking community can refer this as a guide to ascertain the most influential factors to the DT if further developed as stated in the Section B below beyond limitations.

Limitations of the Research

The study has been limited to one of the commercial banks in the country to resolve and improve its DT process to enhance profits over time. Further, it has been restricted only to verify certain internal factors despite the external factors influence DT Success (Lucia KOHNOVA, 2019). In addition, the problem justification has been limited only to non-achieved digital banking goals and based only on IB/MB, ATMs and CDMs along with the Customer Age Analysis despite there are many channels.

Furthermore, 195 Branch Managers were selected as the Sample, even though the Population included all bank employees of 3215 and data collection was limited to a digital format to adhere to pandemic norms and consider only quantifiable factors, leaving qualitative factors subject to further research.

DT is a notion to be researched in the context of the banking industry at large selecting several banks and the study is limited to one single commercial bank due to time, resources, confidentiality in data consumption constrains due to secrecy.

Suggestions for Further Research

The research was conducted restricting to ascertain the most influential internal factors towards the low success rate of DT at the respective commercial bank. It is suggested to carry out a similar study for the banking industry prioritizing Culture differences in each commercial bank. Furthermore, the differences in DT journey of private and government sectors should be studied to ensure whether the responses could be different to one another since it is however a fact that the banks are slower in DT than Fintech Companies (Sharma, 2021). The comparatively low success in DT challenges future banking to provide integrated banking solutions (Chanchal, 2019)

Customer Experience has become the driving force of DT (Carlstrom, 2021) and it is suggested that the respective bank should research

further in the customer perspective in addition to strengthening the internal factors identified out of this research paying attention to the backward digital penetration trend in elder generation and outstation customers as revealed from the survey responses for the open-ended question.

Further it is suggested to select a larger sample size representing the different age groups, designations, and job roles together with qualitative factors to ascertain the necessary understanding on DT whether the digital goals and objectives set by the corporate management has been absorbed by all staff in the bank to ensure deliverables.

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