

IJCRR

INTERNATIONAL JOURNAL OF CONTEMPORARY BUSINESS RESEARCH

VOLUME 1 | ISSUE 1 | NOVEMBER 2022



**INTERNATIONAL JOURNAL OF CONTEMPORARY
BUSINESS RESEARCH**

VOLUME 01 _ ISSUE 01 _ 2022

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International Journal of Contemporary Business Research is published annually by the Faculty of Business, NSBM Green University, Sri Lanka.

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International Journal of Contemporary Business Research (IJCBR) is published by the Faculty of Business, NSBM Green University. It is a journal that promotes critical and creative researches in sub-disciplines relate to business domain. It expects to be the voice of scholars and practitioners by providing an international forum to disseminate their knowledge accumulated through research activities. Promoting excellence by providing a venue for researchers to publish current and significant empirical and conceptual research to enhance the academy of knowledge and wisdom is the core pillar of the perspective mandate of the IJCBR. In order to foster beneficial discussion between traditional and contemporary notions, this journal focuses original and innovative research, along with novel analysis. The journal promotes original academic research in Management and other related disciplines.

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**International Journal of Contemporary Business Research is
published annually by the Faculty of Business, NSBM Green
University, Sri Lanka.**

ISSN : ISSN 2961-5259

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Faculty of Business
NSBM GREEN UNIVERSITY

Published by the, Faculty of Business, NSBM Green University Mahenwatta,
Pitipana, Homagama.

Telephone: +94 115 44 50 00 / +94 (11) 544 5174

Web: www.nsbm.ac.lk

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Printed by:

NSBM Press,
NSBM Green University,
Mahenwatta, Pitipana, Homagama.

FROM THE EDITOR

As the Editor-in-Chief, I am pleased to welcome the readers to engage with the very first volume of the International Journal of Contemporary Business Research (IJCBR) published by NSBM Green University.

IJCBR is an attempt to study, analyse, encapsulate, and disseminate the intricate relationships and complexities of the contemporary business world. As such, it is only apt that its first issue attempts to illustrate some of the novel theories and practices formulated through the convergence of multiple disciplines. This issue, which consists of six articles in total, focuses mainly on the fields of Management, Finance, Operations, and Tourism.

The first study co-authored by Chamil Wickrama Arachchi and Duminda Kuruppuarachchi, zooms into the local context to examine the acceptance of innovation in the field of software development. The study analyses the contributions of R&D management, knowledge management, and market orientation to enhance innovation performance in the software development industry in Sri Lanka, thereby initiating a discussion on factors that influence the innovativeness of software development firms in developing countries.

With the dawn of a challenging era characterised by the phrase “the new normal” after the COVID-19 global pandemic, change has clearly been inevitable. In the second article, authors; Shehani Joseph, Aushadarie Vidanalage, and Vageesha Rajapaksha, endeavor to examine the rise of technology-assisted work culture in such a changing environment. This quantitative research focuses on identifying the impact of organizational cultures (Clan, Market, Hierarchy, and Adhocracy) on technology-assisted supplement work of knowledge workers in Sri Lanka.

Dealing mainly with the tourism industry, the third article written by Janith Iddawala and Rong Huang highlights the importance of visitor perspectives in destination management. By utilising the case study strategy widely employed in the Social Sciences, the author presents visitor satisfaction and perspectives on Belfast-Ireland, a destination that embraces and promotes the concept of cultural tourism. The paper details visitor perspectives in three separate phases (pre-visit, on-visit, and post-visit), all while documenting induced forces and autonomous forces that directly or indirectly influence the mindsets of visitors.

The fourth article, which is yet another case study, attempts to examine the impact of lecturer-student relationships on the self-esteem of undergraduates. This case study, conducted by Shehani Joseph and Thilini De Silva, is based on the experiences of undergraduates studying at a university in Sri Lanka. The authors identify a correlation between the self-esteem of students and their relationship with lecturers and proceed to suggest areas of development in the discussion.

The penultimate article, co-authored by Dhanushka Piyananda and Chandana Aluthge, discusses the use of technology in providing financial services. This empirical study focusing on both the acceptance rate of fintech services in Sri Lanka and the factors influencing fintech acceptance, has the potential to spark further research that contribute significantly to practice, decision and policy making in developing countries.

The journal concludes with an article that expounds on a relatively new concept, presilience, and its effectiveness in enhancing organizational performance. The study conducted by Bhagya Jayawickrama and Ganga Karunathilaka proposes incorporating the concept of presilience in organizational management to enhance adaptive performance within the private sector of Sri Lanka.

The Editorial Board of this issue sincerely hopes that emerging scholars around the world can benefit from the featured authors' unique research experiences and initiatives. Furthermore, the Editorial Board wishes to place on record their appreciation of the efforts of the contributors, paper reviewers, as well as those involved in publishing and printing the journal. The continued support of the Advisory Board and Board of Management of NSBM in this endeavour is also acknowledged.

What Drives Innovation Performance?

A Study of Sri Lankan Software Development Industry

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Abstract

This study investigates the impact of market orientation and R&D and knowledge management practices on innovation performance of Sri Lankan Software Development firms. In this study, market orientation is considered as an antecedent for the overall relationship structure. We also test the roles of management style & leadership and resource support as driving forces of R&D management practices. A conceptual framework is constructed with the support of related literature. Research constructs are operationalized with existing psychometric instruments, which were already validated for their content. A disproportionate stratified random sample of 128 R&D managers and engineers involved in software development is selected from 32 firms, and an online survey is conducted using a structured questionnaire. Results reveal that direct positive effects of R&D and knowledge management practices are statistically significant on the innovation performance of the software development firm. Moreover, knowledge management, management style & leadership and resource support positively affect R&D management practice. Also, the antecedent role of market orientation is evident. Findings of this research provide an empirically validated framework to boost the innovation performance of the Sri Lankan software industry.

Keywords: Innovation performance, R&D management, Sri Lankan Software development industry, Market orientation, Knowledge management

1. Introduction

It is well established that the world is significantly changed by innovations in the software industry and software firms have to constantly innovate just to be in business, let alone thrive in it. However, given the relatively underdeveloped status of the Sri Lankan software industry, there is a need for Sri Lankan software firms to innovate. The Software Development industry in Sri Lanka is thought to be one of the exponentially developing industries and it is ahead or keeping pace with regional and global trends. The Sri Lankan Information Technology – Business Process Management (IT-BPM) Industry Review, PricewaterhouseCoopers (2014), has documented that the global demand for IT/BPM software & services was at USD 1.2 trillion in 2013. There was a 4.5% growth over the demand documented in 2012. Sri Lanka's fortunate geographic location at the southern tip of India positions it at the junction connecting South Asia, Far East, and the Pacific with Europe and America. The global presence is evidence for Sri Lanka's development as a niche destination for Software Product Engineering and Finance Accounting Outsourcing. Developing as a foremost source destination for global IT-BPM services, Sri Lanka is achieving global brand recognition and visibility. Local and foreign investors are now ready to invest in the Sri Lankan Software Development Industry. Competition in the Sri Lankan Software Development Industry has been growing. To maintain their position in an expanding industry, software development companies are innovating. Innovation has been identified as a critical factor for the software development industry (Balasooriya, 2014).

For today's business organizations, creation and exploitation of knowledge have become a competitive advantage. Moreover, global competition has strengthened due to the rapid developments in information technology. Hence, organizations are seeking innovative products, processes, and technologies to win the markets due to this competition. In the era of a knowledge-based economy, the proverb in the software development industry is that "knowledge is power" and it has become competitive in the area of Information Technology. The global competition has strengthened due to the rapid development of information technology. The speed of "go to market" is accelerating at an exceptional rate (Huang and Lin, 2006). R&D activities are critical for an organization when departments of the organization are networked to enhance innovation facilitated by innovation-oriented organizational goals.

The connection between knowledge management and R&D management is characteristically close because the R&D processes can fundamentally be considered as resulting from knowledge management processes. Furthermore, the knowledge required for new product concepts and process designs is generated due to the information transformation on technological advancements and market demands (Park and Kim, 2005). As per Park and Kim (2005), knowledge management system of an R&D organization should be expanded and elaborated over time.

Motivated by the above-mentioned facts on the importance of innovation for the software industry in Sri Lanka as a country, this study investigates whether innovation performance in the Sri Lankan Software Industry is driven by R&D management practices, knowledge management practices, and market orientation of a software development firm. In this study, market orientation is considered as an antecedent for the overall relationship structure. We also test the roles of management style & leadership and resource support as driving forces of R&D management practices. Based on existing literature, a conceptual framework is formed and analyzed using a random sample of 128 responses. A partial least squares structural equation model (PLS-SEM) is used to demonstrate the relationships and to test underlying hypotheses.

This paper comprises of six sections. Following this introduction is a brief synopsis of the literature on innovation performance, R&D management, knowledge management, market orientation and resource support, and management style & leadership. The next section outlines the methodology of the study. The results of the analysis are described next, followed by a section discussing the findings and outlining the implications. The paper is then concluded.

2. Literature review

The software development industry has been characterized as an industry that requires a substantial amount of R&D expenditure. R&D management is defined as the discipline of designing and leading R&D processes, managing R&D organizations, and ensuring a smooth transfer of new know-how and technology to other groups or departments involved in innovation (Roussel et al., 1991). People, not products, are the major assets of innovative companies, and hiring the right people should be their top priority (Gupta and Singhal, 1993). In the product

innovation business, companies need to do whatever they can to attract and retain the talent that is needed to come up with the latest and best products or services (Hagel and Singer, 1999). Hence, the top priority for human resource managers in R&D organizations is the attraction and retention of talent to support product or service growth (Kochanski et al., 2003). Moreover, Lundvall and Nielsen (2007), document that product innovation is a significant factor in competition.

Innovation is a critical instrument for organizations to secure a place in the competitive world of the future (Zhang et al., 2004). Innovation capability is the ability to adequately absorb, allocate, and use skills and knowledge to enhance existing technology, and to realize new products and technology (Cirera et al., 2015; Huang and Lin, 2006; Lall, 1992). Shyu and Chiu (2002), document that innovation is the progression of exercises in the areas of science, technology, organization, finance, and commerce. In order to drive innovation smoothly, R&D expenditure must be the key power in an organization that is involved in R&D activities (Huang and Lin, 2006; MacPherson, 1997; Romijn and Albaladejo, 2002). It helps to sustain and grow R&D functions progressively. Therefore, a sufficient R&D budget needs to be allocated and adequate equipment; facilities and office support should also be provided (Huang and Lin, 2006). Employee benefits and job security have also been identified to directly influence innovation performance (Chang and Chen, 2002). Having considered the significance of the R&D function for the achievement of innovation performance, this study tests the first research hypothesis over the Sri Lankan software industry as follows.

H₁: There is a positive impact of R&D management practices on innovation performance.

Assessing innovation performance is complex, as there is a wide range of determinants and time lags between R&D spending and subsequent performance (Zhang et al., 2004). MacPherson (1997), claims that innovation is the aftereffect of commercialization after a time of effective design, development, and the fruition or proper refinement of a product. Innovation performance can be measured using both qualitative and quantitative approaches. The quantitative measurements are the number of patents, the number of new products, technical or scientific reports (Huang and Lin, 2006; Romijn and Albaladejo, 2002). Szakonyi (1994), documents that another measurement for innovation performance is the degree of novelty of the products. Huang & Lin (2006), document that novelty is only one

factor, which affects the marketability of products. They claim that it is difficult to evaluate the degree of novelty.

The management of knowledge is frequently recognized as a significant forerunner of innovation (Carneiro, 2000). Knowledge management incorporates organizing, sharing and using knowledge in order to create value and achieve competitive advantage for an organization (Ibrahim and Reid, 2009). A well-designed and well-implemented knowledge management system can bring about higher efficiency, higher customer satisfaction, and decreased costs. There are two major types of knowledge namely, tacit knowledge and explicit knowledge. Tacit knowledge is the knowledge that is difficult to transfer to another person by means of written texts or verbalizing while explicit knowledge speaks to a substance that has been captured in some substantial frame, for example, words, audio, or images (Chugh, 2013). By using data of New Zealand firms, Darroch and McNaughton, (2002) explored a knowledge management instrument which involves three components; knowledge acquisition, knowledge dissemination and responsiveness to knowledge are regressed alongside three-component innovation scale which covers the incremental innovation. They demonstrate that knowledge acquisition and responsiveness to knowledge are more vital for innovation than knowledge dissemination. Wang and Ellinger (2011), have further pointed out that the individual-level innovation performance and organizational level innovation performance are the main outcomes of organizational learning which consist of four indicators; information acquisition, information distribution, information interpretation, and organizational memory. More generally, knowledge dissemination and responsiveness to knowledge have been suggested as the most effective dimensions in the creation and maintenance of competitive advantage (Day, 1994; Fahey and Prusak, 1998; Leybourne and Kennedy, 2015). In line with these arguments, this study tests the second and third research hypotheses as follows.

H₂: There is a positive impact of knowledge management practices on innovation performance.

H₃: Knowledge management practices have a positive impact on R&D management practices.

The success of a new product on the market is significantly influenced by marketing activities. Therefore, the innovation performance of R&D teams should

be measured only up to the point at which promising, marketable products are generated. As long as new products or improvements to products are supposed to have market potential, then the R&D team should not be held accountable for whether products are marketed successfully or not (Huang and Lin, 2006). Market orientation is a customer focused way to deal with product design and is a part of the organizational culture that is accepted to have broad impacts on the firm. Information management is defined as the core component, and market orientation is characterized as the organization-wide generation of market knowledge relating to present and future customer needs, dissemination of the knowledge crosswise over divisions, and organization-wide responsiveness to it (Kohli and Jaworski, 1990). Han, Kim, and Srivastava, (1998), examine how the three core components of market orientation (customer orientation, competitor orientation, and inter-functional coordination) affect the two core components of organizational innovativeness, which course to influencing corporate performance. Jiménez-Jimenez et. al. (2008), empirically tested the impact of market orientation, organizational learning, and innovation on performance. They demonstrate that market orientation and organizational learning boost the innovation process. Akman and Yilmaz (2008), investigate the relationships among market orientation, innovation strategy, innovative capability, and innovation success in small and medium-sized business in developing countries. Verhees and Meulenbergh (2004), explore the consolidated impact of market orientation and innovativeness of product innovation on company performance in small firms. They pointed out that the proprietor's innovativeness penetrates all factors in the model and affects market orientation, innovation, and performance. Overall, the literature indicates that market orientation of a firm not only leads the innovation performance but also enhances the learning process, leadership, and management involvement in the R&D function. Based on this antecedent role in market orientation, the following research hypotheses are tested in this study of the Sri Lankan software industry.

H4: There is a positive impact of market orientation on innovation performance.

H5: Market orientation has a positive impact on R&D management practices.

H6: Market orientation has a positive impact on knowledge management practices.

H7: Market orientation positively affects management style and leadership.

On the other hand, an organization requires well-committed leadership and management support in order to create an innovative culture (Maughan, 2012).

Therefore, the qualifications and experience of a manager who gets involved in R&D activities are imperatively significant for innovation performance, however, the criteria that are used to choose potential R&D managers are still biased in favor of the person with the best technical skills (Clarke, 2002). Elkins and Keller (2003), document that transformational project leaders who convey a motivational vision and provide intellectual stimulation and leaders who build up a top-notch leader-member exchange relationship with project members are connected with project achievement. Furthermore, Hamel (2006), indicates that leadership is essentially imperative since innovation in management principles is necessary to facilitate a long-term advantage and create extraordinary shifts in competitive position. Whitelaw (2013), indicates that there are a few differences within and across the three managerial levels in their leadership styles relying on the current objective. These distinctions incorporate the particular sorts of leadership styles embraced, and the number of styles embraced, both within and across the current objective (Whitelaw, 2013). Thus, it is evident that the management style and leadership plays a prominent role not only for facilitating with the resourced to boost resource support for the R&D process but also to directly provide a vision to the firm's R&D function. Accordingly, this study tests the following research hypotheses for the Sri Lankan software industry.

H₈: Management style and leadership of the firm have a positive impact on R&D management practices.

H₉: Resource support provided by firm has a positive impact on R&D management practices.

H₁₀: Management style and leadership positively affect resource support provided by the firm to.

3 Methodology

In line with the literature review and proposed research hypotheses in the previous section, this study conceptualizes the research framework as shown in Figure 1.

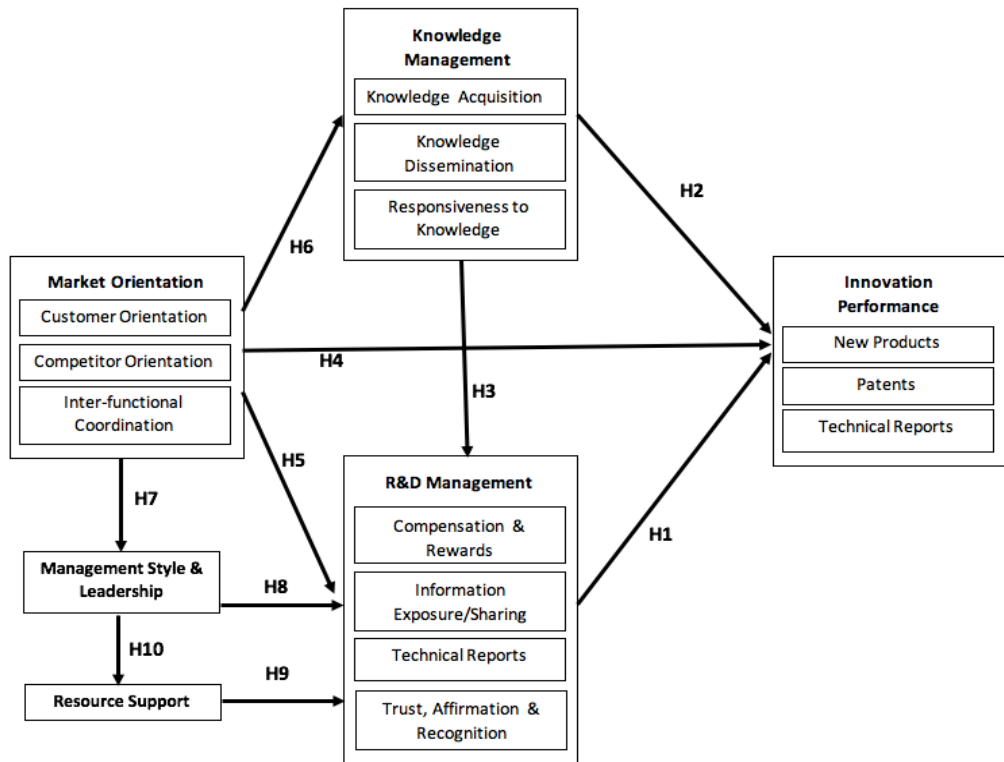


Figure 1. Research Framework

It should be noted that H₁, H₂, and H₄ demonstrate direct effects of R&D management practices, knowledge management practices, and market orientation on innovations performance while H₃ and H₅ indicate an indirect impact of knowledge management practices and market orientation on innovation performance, with R&D management practices mediating the relationships. Moreover, H₆ establishes an indirect effect of market orientation on innovations performance via knowledge management practices, which acts as a mediator. Management style & leadership tend to mediate the relationship between market orientation and R&D management practices in H₇ and H₈ while resource support tends to mediate the relationship between management style & leadership and

R&D management practices in H₉ and H₁₀. All these hypotheses are supported by literature reviewed in the previous section.

3.1 Measurements

As illustrated in Figure 1, this study uses six research constructs namely, R&D management practices, knowledge management practices, market orientation, innovation performance, management style & leadership, and resource support. R&D management practices (RDMP) consist of three dimensions namely, compensation & reward (CR), information exposure and sharing (IES), and technical reporting (TR). These dimensions are measured using a 5-point Likert Scale following Huang and Lin (2006). The questions forming the dimensions are presented in Appendix A. Similarly, Knowledge management practices (KM) construct includes three dimensions namely, knowledge acquisition (KA), knowledge dissemination (KD), and responsiveness to knowledge (R2K) which are measured using a 5-point Likert Scale as per Wang and Ellinger (2011) and Darroch and McNaughton (2002). Market orientation (MO) construct also carries three dimensions namely, customer orientation (CUSO), competitor orientation (COM), and inter-functional coordination (IFC) in line with Han, Kim, and Srivastava (1998). These constructs are also measured using a 5-point Likert Scale using the questions presented in Appendix A. Innovation performance (IP) is the dependent variable of the conceptual model, which includes three dimensions namely, new products (NP), patents (PAT), and technical reports (TER). Following Huang and Lin (2006), this study uses a 5-point Likert Scale using the questions shown in Appendix A to measure underlying dimensions of innovation performance even though they could be objectively measured.

Moreover, management style & leadership (MGLS) construct covers three dimensions namely, proactive thinking (PRT), education (EDU), and leadership style (LS) as in Huang and Lin (2006). The same study also introduces resource support (RESS) construct with two dimensions namely, office support (OFS), and R&D budget for equipment and facilities (RDB). This study adopts the same measurement scales as in Huang and Lin (2006).

3.2 Sampling and data collection

The population of the study consisted of Software Development organizations, which perform R&D and innovation activities in the Sri Lankan Software Development Industry. The population is limited to the Colombo geo-location where most of the Software Development companies are located. The foreign branches of the above organizations are not included in the study and hence, the empirical domain is limited to the Sri Lankan Software Development Industry. As a result, the sampling frame becomes 84 registered organizations of Sri Lanka Association of Software and Service Companies (SLASSCOM). Thirty-two companies are randomly drawn from SLASSCOM representing 38% of the population by employing disproportionate stratified random sampling procedure. In order to minimize the single response bias, four most suitable respondents (e.g., engineers and managers) from the same organization who are involved in innovation and R&D activities are selected and they are contacted via email. Thus, 128 responses are used for the data analysis representing a sample of 32 organizations.

Data are collected using a structured self-administered online questionnaire. A pilot study involving ten respondents was conducted to streamline the questionnaire for its readability and understandability. Certain technical terms have been rephrased as a result of the feedback received from the pilot survey, as certain measurement indicators were not consistent with the Sri Lankan software industry sector¹.

3.3 Data analysis procedures

This study performs an initial investigation of construct validity and reliability of scale measurements although those measurements are retrieved from existing literature. This assures that these measurements suit the context in which this research has been carried out. Construct validity is assured under both convergent and discriminant validity criteria using average variance extracted (AVE) and Fornell-Larcker method respectively (Henseler, Ringle, and Sarstedt, 2014). An AVE value must be 0.5 at least to indicate sufficient convergent validity, meaning that a latent variable is able to explain more than half of its indicators on average.

¹ Results of the pilot survey are not reported to conserve the space but available upon request.

Fornell-Larcker criterion for discriminant validity checks whether the square root value of the AVE of the corresponding construct is greater than those correlations with other constructs (Henseler, Ringle and Sarstedt, 2014). In order to assure the reliability of measurement scales, internal consistency is assessed using Cronbach's alpha. An alpha value greater than 0.7 indicates reliability of a set of measures. Due to Cronbach alpha's limitations in the population (Hair et al., 2014), composite reliability measure is also used to assure the internal consistency with the same threshold level.

This study uses partial least squares structural equation modeling (PLS-SEM) approach for testing research hypotheses. PLS-SEM method is used against covariance-based structural equation modeling (CB-SEM) as PLS-SEM provides more robust results in the presence of relatively small samples, and for the data, which deviate from multivariate normality (Hair et al., 2011). Thus, the conceptual framework is assessed for its significance and relevance using the coefficient of determination (R^2), and the effect size (f^2). All the computations are performed using SmartPLS 3.0 software with 5000 bootstrapped samples.

4. Results

This section explains the results of the study, including the description of the sample, validity & reliability tests, and the estimation of structural.

4.1 Description of the sample

Table 1 illustrates the frequency distributions for the characteristics of respondents and firms included in the surveyed sample. Panel A of Table 1 presents respondents' profiles and Panel B presents firm profiles. It is evident from Panel A that the majority of the respondents are males (78.9%) which is a common phenomenon in the software development industry in Sri Lanka. Moreover, 65% of the respondents are below 31 years of age.

Table 1: Sample Profile

Panel A: Respondents' profile			Panel B: Firm profile		
	Frequency	Percentage		Frequency	Percentage
Gender			No of employees		
Male	101	78.9	Less than 200	10	31.2
Female	27	21.1	200-500	11	34.3
			Greater than 500	11	34.3
Age group					
Below 25 years	19	14.8	Age of company		
25-30 years	64	50.0	Less than 3 years	13	40.6
31-35 years	33	25.8	3-6 years	11	34.3
Above 35 years	12	9.4	More than 6 years	8	25.0
Educational level			Global Presence		
Graduate	91	71.1	Yes	30	93.8
Postgraduate Diploma	13	10.1	No	2	6.1
Masters Degree	24	18.8			
Working experience					
Less than 3 years	72	56.2			
3-5 years	38	29.7			
More than 5 years	18	14.1			

Source: Survey Data

As far as educational qualifications are concerned, it is evident that the majority is with graduate level qualifications (71.1%). Also, a majority (56.2%) of the respondents are with less than three years of experience. According to Panel B in Table 1, 65.5% of the companies are up to 500 employees in size, and 74.9% of the companies are up to 6 years old. Furthermore, only 6.1% of the companies are limited to the local market while all other companies are multi-national. This is

inevitable as the software industry standards, products, and policies are global than local.

4.2 Validity and reliability of research constructs

Prior to estimating the structural model in Figure 1, confirmatory factor analysis and reliability analysis are conducted to verify the measurement model. All the other indicators used in the model depicted adequate convergence to the underlying constructs. Finalized results of the validity and reliability analysis are illustrated in Table 2. It is evident from Table 2 that the sample adequacy ($KMO > 0.5$) and significance of the inter-item correlations in the indicator measures (Bartlett's test $p\text{-value} < 0.05$) exist. Minimum factor loadings presented in Table 2 verify that all factor loadings are greater than 0.7 indicating a satisfactory indicator convergence into underlying constructs. All AVE values presented in Table 2, which are located in the diagonal of the matrix, are also greater than 0.5 indicating that more than 50% of the variation in the underlying indicators are explained by the corresponding construct. Thus, convergence validity is justified.

Table 2 also illustrates Fornell-Larcker criterion for the discriminant validity, AVE of a construct should be greater than the squared correlation values with other constructs (Henseler, Ringle and Sarstedt, 2014). This criterion is fulfilled in Table 2 and hence, discriminant validity is justified. Reliability of the research constructs is assured using internal consistency in measures, which is assessed using both Cronbach's alpha and composite reliability. It is evident from the last two columns in Table 2 that all reliability measures are greater than 0.7 and therefore, it can be stated that an adequate level of internal consistency exists in all constructs.

Table 2: Validity and Reliability Analysis

	Confirmatory Factor Analysis				Squared Correlations (AVE)					Reliability Analysis		
	KMO Statistic	Bartlett's Chi-square (p-value)	Min. Loading	Max. Loading	IP	RDMP	KM	MO	MGLS	RESS	Cronbach's Alpha	Composite Reliability
Innovation Performance (IP)	0.739	196.0 (<0.001)	0.870	0.909	(0.895)						0.877	0.924
R&D Management Practice (RDMP)	0.759	279.3 (<0.001)	0.700	0.922	0.645	(0.842)					0.861	0.906
Knowledge Management (KM)	0.715	261.7 (<0.001)	0.890	0.950	0.646	0.728	(0.918)				0.906	0.941
Market Orientation (MO)	0.716	185.2 (<0.001)	0.844	0.906	0.643	0.576	0.800	(0.886)			0.862	0.916
Management Style & Leadership (MGLS)	0.683	141.9 (<0.001)	0.744	0.917	0.670	0.657	0.756	0.778	(0.853)		0.815	0.889
Resources Support (RESS)	0.500	123.9 (<0.001)	0.940	0.953	0.763	0.637	0.763	0.689	0.689	(0.946)	0.884	0.945

Source: Survey Data

4.3 Estimation of structural relationships

The fitted SEM using SmartPLS 3.0 is illustrated in Figure 2 along with its standardized coefficients of all direct effects. Values within construct symbols represent adjusted R-square values of corresponding endogenous variables. Table 3 illustrates the statistical significance of all coefficients including direct, indirect, and total effects. Table 3 also presents the effect size of each direct effect using f^2 statistics.

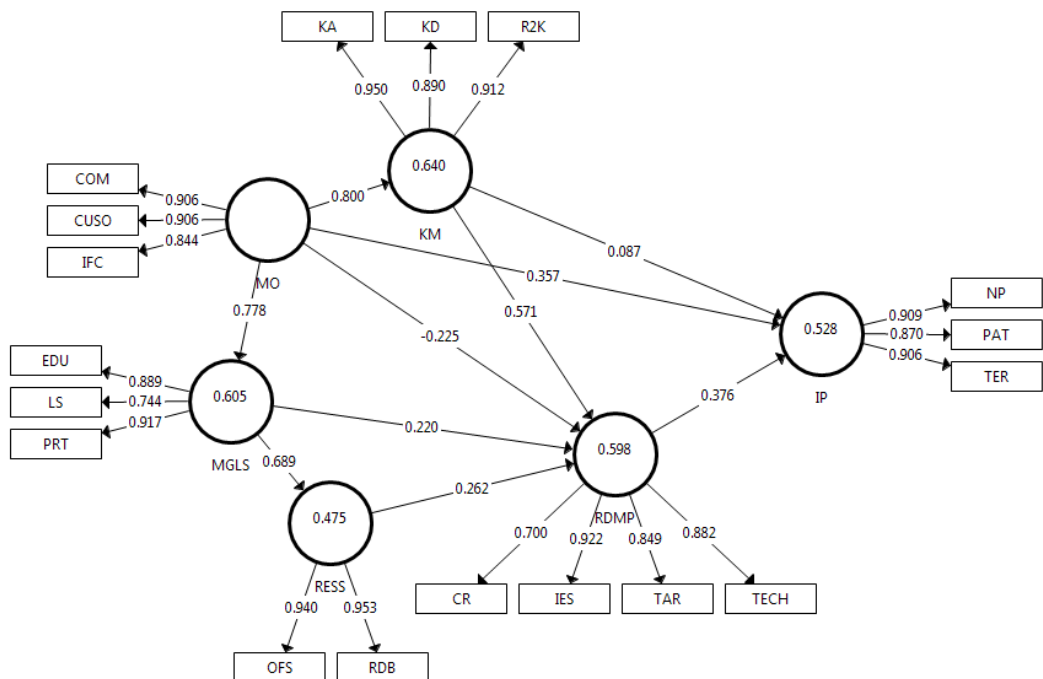


Figure 2: Fitted PLS-SEM

According to Figure 2, R&D management practices, knowledge management practices, and market orientation are positively related to innovations performance. However, direct relationships in Table 3 indicate that the direct impact of knowledge management is not significant at 5% level. Thus, H₁ and H₄ are accepted but not H₂. Nevertheless, knowledge management is indirectly related to innovations performance mediated by R&D management practices. Hence H₃ is accepted along with H₁. According to f^2 values, R&D management practices provide the highest effect (0.14) indicating its dominance as a factor affecting innovations performance.

Market orientation is not significantly related to R&D management practices at 5% level and thus H₅ is not accepted. However, Market orientation is significantly related to knowledge management practices, and management style & leadership supporting H₆ and H₇ respectively at 5% level. Thus, the antecedent role of market orientation is evident except on R&D management.

Table 3: Results of the Fitted SEM

Direct effects	Coefficient	Std.Error	t-Stat	p-value	Effect size (f^2)	Decisions on Hypotheses at $\alpha = 0.05$
RDMP \rightarrow IP	0.376	0.099	3.804	< 0.001	0.140	H ₁ : Accepted
KM \rightarrow IP	0.087	0.137	0.635	0.526	0.004	H ₂ : Rejected
KM \rightarrow RDMP	0.571	0.139	4.120	< 0.001	0.248	H ₃ : Accepted
MO \rightarrow IP	0.357	0.105	3.397	< 0.001	0.097	H ₄ : Accepted
MO \rightarrow RDMP	-0.225	0.121	1.865	0.062	0.036	H ₅ : Rejected
MO \rightarrow KM	0.800	0.054	14.761	<0.001	1.775	H ₆ : Accepted
MO \rightarrow MGLS	0.778	0.039	19.810	<0.001	1.532	H ₇ : Accepted
MGLS \rightarrow RDMP	0.220	0.115	1.907	0.057	0.038	H ₈ : Rejected
RESS \rightarrow RDMP	0.262	0.085	3.068	0.002	0.080	H ₉ : Accepted
MGLS \rightarrow RESS	0.689	0.050	13.716	<0.001	0.906	H ₁₀ : Accepted

Indirect effects on IP				
KM \rightarrow IP	0.214	0.075	2.864	0.004
MO \rightarrow IP	0.274	0.101	2.702	0.007
MGLS \rightarrow IP	0.150	0.059	2.529	0.011
RESS \rightarrow IP	0.098	0.051	1.913	0.056

Total effects on IP				
RDMP \rightarrow IP	0.376	0.099	3.804	< 0.001
KM \rightarrow IP	0.302	0.104	2.891	0.004
MO \rightarrow IP	0.631	0.053	11.809	< 0.001
MGLS \rightarrow IP	0.150	0.059	2.529	0.011
RESS \rightarrow IP	0.098	0.051	1.913	0.056

Source: Survey Data

According to the effect sizes in Table 3, market orientation shows the highest effect on knowledge management ($f^2 = 1.8$) and then on management style & leadership ($f^2 = 1.5$). It is also evident from the direct relationships in Table 3 that management style & leadership does not affect R&D management practices, but resource support does at 5% level. This leads to reject H_8 but accept H_9 . Management style & leadership impact increased resource support significantly at 5% and thus, H_{10} is also accepted. Table 3 also illustrates the total effects on innovation performance. It is evident that all total effects excluding resource support are significant at 5%.

Overall, tested relationships in Figure 2 provide evidence for direct or indirect effects from R&D management practices, knowledge management practices, and market orientation on innovation performance of the software industry, which are significant at 5% level supported by the results in Table 3. Moreover, R&D management practices are influenced by knowledge management practices as well as resource support. Resource support is led by management style and leadership while market orientation drives the firm's management style and leadership.

5. Discussion and implications

This study documents that in-house R&D is a significant determinant of becoming an innovator, but only if the R&D is formalized in some way. Huang and Lin (2006) documents that the relationship between R&D management practice and innovation performance is contingent upon whether there is a formal R&D budgeting procedure, whether there is adequate and timely equipment support, and whether the facility for R&D is well planned, specifically for the team. This study assessed the effect of environmental facilities (information sharing and technical reporting) and incentives & encouragement (compensation, rewards, trust, affirmation, and recognition) towards R&D on innovation performance. Results of this study clearly demonstrate the direct impact of the management of R&D on better innovation performance.

Knowledge acquisition, knowledge dissemination, and responsiveness to knowledge are beneficial for innovation outcomes of the firm that share more knowledge externally also benefit from improved relative innovation performance (Ritala et al., 2015). Alegre (2011) documents that such knowledge management practice can enhance sustained competitive advantages in innovation performance in biotech enterprises, but it does so indirectly through the creation of knowledge

management dynamic capabilities. This study also identifies that the impact of knowledge management practices on firm's innovations performance does not appear directly but indirectly. Results of this study clearly demonstrate that knowledge management practices help to improve R&D management leading to better innovation performance. Thus, the management of software development industry must establish a mechanism for knowledge acquisition, knowledge dissemination, and responsiveness to knowledge if they intend to plan R&D for innovations.

Farrell (2000) argues that market-oriented firms are effective in producing knowledge, where this culture of knowledge production inevitably leads to knowledge-questioning values. Mahmoud et. al. (2016) document that market orientation is positively related to a learning orientation. This study also supports the hypothesis that market orientation leads to knowledge management practices. However, this study does not find a direct relationship between market orientation and R&D management practices. Instead, an indirect relationship was evident through knowledge management and management style & leadership. Moreover, this study found that management style and leadership to achieve the intended objectives of the R&D management process should follow resource support. Ultimately, the antecedent role of market orientation is evident in the process of managing a software development firm towards better innovation performance.

For managers who are involved in R&D activities, and upper or middle management of the organization, the results of this study provide a better understanding of how their leadership style, education background, and expertise will influence the innovation performance through R&D management practices, knowledge management practices, and market orientation. The management of the organization and R&D managers should consider providing adequate resource support (R&D budget, equipment & facilities, office support) for R&D activities and create more value for the innovation performance because none of the direct relationships are significant without resource support. Overall, this study would be an ideal stepping stone for a new framework for a better level of innovation performance in the software industry, with a strategic focus on R&D management, knowledge management, and market orientation.

6. Conclusion

This study combines knowledge from three areas related to the software development industry, namely, R&D management, knowledge management and market orientation to understand the drivers of innovation performance in the software development industry in Sri Lanka. The study makes several contributions. First, this study introduces an extended framework for enhancing innovation performance in the presence of R&D management practices, knowledge management practices, and market orientation. Secondly, this study examines the innovation performance of the Sri Lankan software industry for the first time. Thirdly, relationships revealed in this study help the management of the software development firms not only in Sri Lanka but also in other developing countries to organize their resources and stimulate the management process to boost innovation performance.

The theoretical scope of this paper is limited to R&D management practices, knowledge management practices, market orientation, and innovation performance. Thus, this study incorporates only five research constructs: R&D management practices, knowledge management practices, market orientation, management style & leadership, and resource support. A survey based empirical study is carried out representing the Colombo District where the majority of the firms are located to test the proposed conceptual framework. A PLS-SEM is employed to test the underlying relationships. Results reveal the direct positive effects of R&D management practices, market orientation, and knowledge management practices on innovation performance. Moreover, knowledge management, management style & leadership, and resource support positively influence R&D management practices. Ultimately, market orientation plays an antecedent role in managing software development firms towards innovation performance.

This study opens several promising paths for future research where R&D and innovation are prominent in practice. The focus of this research is the Software Development industry in Sri Lanka. However, there is relevance to any industry in terms of sustainability and competitive advantage and hence, the conceptual model used in this study can be tested for many industries apart from the software development industry. This study uses the number of new products, the number of patents and the number of technical reports published to measure innovation

performance. In future research, the measurement scale of innovation performance can be improved further by incorporating dimensions such as the percentage of sales created by less than two-year-old product designs, percentages of sales generated by intellectual properties, etc. Finally, the learning orientation of the organization would be an important construct to be merged with or replaced by the market orientation construct in the model proposed in this study (Baker & Sinkula, 2002).

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The Response Expectation of Organizational Culture on Technology-Assisted Supplement Work

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Abstract

In this paper, the authors explored the impact that organizational culture has on the Technology Assisted Supplemental Work (TASW) of Sri Lankan knowledge workers. This study focuses on a challenge that managers of Technology-Assisted Supplemental Work (TASW) of Knowledge Workers in Sri Lanka must address by incorporating organizational culture-based response expectations. The organizational culture can be categorized into four main cultures Clan, Market, Hierarchy, and Adhocracy. In this study, those are considered as the independent variables where the dependent variable is the TASW which is mediated by response expectation. It is proposed to conduct quantitative research to test the hypothesis assumed by the authors.

Keywords: TASW; Response expectation; Organizational culture

1. Introduction

Individuals take part in Technology Assisted Supplemental Work (TASW) when they perform job-endorsed undertakings at home after daytime hours with the guidance of mechanical apparatuses (Fenner & Renn, 2010). While conducting the influence of organizational performance on organizational culture, it became clear that where organizational culture is robust, it serves as a reliable and consistent compass and a potent lever that can guide the behavior of organizational members, where it is highly probable that response expectations can make a significant contribution (Nazarian, Atkinson, & Foroudi, 2017).

Furthermore, it is widely acknowledged in organizational literature that a typology of organizational cultures is difficult to measure and recognize, mostly because employees' shared assumptions and interpretations are concealed beneath their cognitive awareness (Lund, 2003). Hence, to fully comprehend organizational cultures, the Organisational Culture Assessment Instrument (OCAI), a tool based on the Competing Value Framework (CVF) that takes into account the key cultures of an organization, which, according to Cameron and Quinn (2011), are hierarchy, clan, market, and adhocracy, was included in this study.

In this study, the authors examine Technology Assisted Supplement Work TASW, which is described as scattered work practices undertaken after hours, typically without a formal contract or recompense, and carried out on electronic devices (Arlinghaus & Nachreiner, 2014; Fenner & Renn, 2004, 2010; Ojala, 2011; Zoonen, Sivunen, & Treem, 2021). Additionally, there have been several studies that embrace the idea that employers and employees may build responsiveness expectations that influence how techniques are applied and may increase employees' engagement in their workplace (Derks et al., 2015; Leonardi et al., 2010; Mazmanian et al., 2013). It is thus necessary to explore how four distinct organizational cultures: hierarchy, clan, market, and adhocracy exist in the current work environment and the TASW framework was utilized to examine how these cultures could exert pressure on workers to meet their response expectations.

1.1. Background of the research

Along with the connectivity among the people in the world facilitated by advancements in technology, traditional paradigms of organizational operations

have taken a new shift. The concept of Technology Assisted Supplement Work (TASW) has been made a possibility due to the impact of technology-based avenues to enable employee connectivity to perform job tasks during extended hours, remotely from the physical job space. Since every organization strives to successfully survive in the business landscape, organizational performance must be upheld regardless of the way how organizational employees connect or collaborate to achieve the performance goals of the organization. According to Marta and Carl Sinclair (2009), the culture which is embedded within an organization is a prime factor that enables an organization to gain a competitive advantage for it molds the way how work is carried out within the organizational context. The culture within the organization relates to the level of organizational performance depicted. When being connected remotely the success of the task performance will rely on how responsive these remotely working employees are. According to Fenner (2010), organizational members tend to develop expectations related to co-worker or subordinate responsiveness, towards the achievement of performance goals when working in a TASW-based setup. This can be a factor that is attributable to organizational culture because culture sets the basis for guiding thought patterns, intentions, and behavior of the set of people within the organization (Alvesson, 2013), including the nature of expectations from peers and subordinates within an organization. In determining the relationship between organizational culture and organizational performance a popular framework being used by prior scholars is the Competing Values Framework (CVF) (Quinn and Rohrbaugh, 1983), which discussed four types of organizational cultures namely; clan culture, market culture, hierarchy culture, and adhocracy culture. Since different types of organizations denote different attributes unique to them in light of the internal or external business environment and the extent of stability or flexibility cherished by the organization, the expectations regarding the responsiveness in communication among organizational members tend to differ. This study is thereby woven around understanding how response expectations cherished by different types of organizational cultures tend to influence the Technology Assisted Supplement Work of knowledge workers, specific to Sri Lanka.

Different types of organizational cultures denote attributes unique to such cultures specifically in the light of the focus extended toward the internal or external business environment and the extent of stability or flexibility cherished by the

organization. These different organizational cultures tend to show differences in expectations related to communication within the organizational employee network, to achieve the intended organizational performance goals. Due to expectations towards employee responsiveness being different across identified organizational cultures, the work discharged by the workers (especially knowledge workers) during extended hours (catered remotely-TASW) tends to be impacted differently, hence is identified as the research gap to be studied via this research.

2. Literature review and theoretical framework

According to Schein (2010), organizational culture consists of values, customs, beliefs, and assumptions shared among the members of the respective organization, which are related to the guiding behavior of the set of people within the organization (Alvesson, 2013). Organizational culture serves as the main cause in enabling an organization to gain a competitive advantage hence the attention of many scholars has been drawn towards investigating the impact of organizational culture on the performance of the organization (Sinclair & Sinclair, 2009). In measuring the relationship between organizational culture and organizational performance the Competing Values Framework (CVF) (Quinn & Rohrbaugh, 1983) has been adopted in previous studies. The CVF framework identifies four types of cultures represented across two axes namely internal external and stability/flexibility. According to CVF, the four cultures derived are clan, market, adhocracy, and hierarchy (Cameron & Quinn, 2011). Quinn (1998) has identified sustaining the balance of these four cultures within an organization will enable an organization to ensure an advantage in the dynamic business environment. This advantage arises as different cultures provide organizations with the opportunity to be endowed with a broader scope of views, enabling the ability of the firm to actively respond to the changing market conditions (Gregory et al., 2009)

Technological disruption compels organizations to adapt to the digital era. This study aims to identify the impact of organizational culture on the Technology Assisted Supplement Work of knowledge workers in Sri Lanka. Hence, achieving this digital era is vital to majority who are working to achieve the organizational common goals.

The conceptual framework has been designed using two specific articles. One article is written by Nazarian, A., Atkinson, P., and Ford, P in 2017 on “The

Influence of national culture and balanced organizational culture on the hotel industry's performance" and published in the *International Journal of Hospitality Management*. The other article is by Zoonen, W., Sivunen, A., and Treem, J. W. on "Why people engage in supplemental work: The role of technology, response expectations, and communication persistence" which was published in 2021 in the *Journal of Organizational Behavior*.

It is assumed that a culture of an organization is created based on how the national culture and these cultures, respond differently to new adaptations (Nazarian, Atkinson, & Foroudi, 2017). Kilduff (1993) explains that employees in an organization who are of different nationalities modify the organizational cultural patterns to create a similar culture that aligns with their own culture. This clearly states that people who are from different cultures would understand and react to an issue in an organization in different terms as per their interpretation. This might be modifying, ignoring, or bending some rules and regulations which would negatively impact the organization's original culture (Gregory, 1983).

Studies have investigated the impact of organizational culture on organizational performance. Organizational culture is one of the main resources that organizations must maintain for their competitive advantage (Sinclair and Sinclair, 2009). An organization's culture can be distinguished by two axes which are internal/external and stability/flexibility. Internal/external axes focus on employee satisfaction and the ability to function well in a competitive environment. Stability/flexibility axes are concerned with allowing employees to use their initiatives (Quinn & Rohrbaugh, 1983). These two axes form a quadrant indicative of four distinct organizational culture types: clan, adhocracy, market, and hierarchy (Cameron & Quinn, 2011).

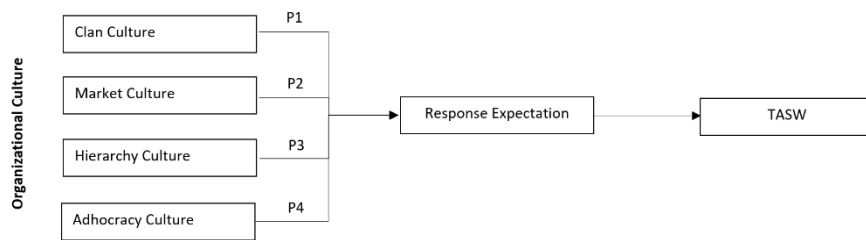


Figure 1: The relationship between the three constructs

Employees who are engaged in TASW are anticipated to be better achievers and performers, and with a higher level of career success. They also have a potential for greater work-to-family conflicts than people who do not engage in TASW (Fenner & Renn, 2004). It is also assumed that the organizational culture with different cultural clusters has different response expectations to TASW.

The main purpose of the proposed study is to identify whether there is a relationship between organizational culture and TASW while being mediated by responsive expectations.

2.1. Clan culture

According to Cameron and Quinn (2005), clan culture endows characteristics such as teamwork and employee engagement which tend to build core values such as participative behavior, loyalty, and mutual commitment. The emphasis on clan culture thereby lies in promoting shared understanding as well as commitment among the organizational members without relying on a formalized process of communication. This is a culture that relies on the concept of collaboration and belongingness. Clan culture has a prime focus on human relationships made meaningful via organizational cohesiveness, the welfare of organizational members, and the commitment and loyalty of organizational members towards the organization (O'Reilly et al., 1991). It is often explained as a work environment-based culture promoting a family-like and homely work setting for its employees (Cameron, 2004). Tseng (2010) and Fiordelisi (2014), emphasized that in clan culture-based organizational setups, employees tend to cherish working in teams, converging towards common agreement as well as participatory engagement. The

goal of preserving a clan culture within an organizational setting is to trigger the performance of employees by boosting employee commitment, responsibility, and a sense of ownership via employee empowerment (Han, 2012; Murphy et al., 2013; Yirdaw, 2014).

2.1.1. Clan Culture and Response Expectations

According to Nongo and Ikyanyon, (2012) organizational managers tend to encourage the engagement of employees and employee commitment as embedded features of clan culture because it is expected that committed employees are likely to perform the assigned tasks efficiently and effectively. Tierney (1999) has emphasized that managers and team members in an organizational setting contribute towards two dominant social relationship bases that influence how organizational employees perceive the work environment they are exposed to. Thereby, the nature of the relationships maintained by managers and team members within an organizational setup tends to influence the response expectations of employees (Ward et al., 2019). Hence the authors propose the following:

P1: There is a relationship between clan culture and response expectation of Technology Assisted Supplement Work of knowledge workers in Sri Lanka

2.2. Market culture

According to Cameron and Quinn (2005), organizations cherishing market cultures tend to have a heightened focus on the external organizational environment and focus on internal organizational affairs and relationships. The rational goal perspective is another identification for market culture which denotes a strong emphasis on stability and external focus (Keskin et al., 2005). In organizations depicting a market culture, the organizational value system tends to be woven around efficiency, productivity, goal clarity, and goal completion (Gray & Densten, 2005; Owino & Francis, 2019) where the mechanism for the creation of coordination between the organizational members is through goal orientation. According to Weiwora et al., (2012) and Pinho et al., (2014) organizations depicting market culture will showcase emphasis on control, achievement, and competitive aspects, with a greater focus on a result-oriented culture prioritizing transactions with external customers. Deshpande et al., (1993) expressed that

organizations depicting market cultures tend to have a major inclination toward being successful in terms of performance because of their extensive focus on competitive advantage and market superiority.

2.2.1. Market Culture and Response Expectations

Organizations with market cultures tend to be more focused on result orientation, productivity, efficiency, and external markets overfocusing on internal organizational affairs and relationships with employees (Cameron & Quinn, 2005). Since employees are expected to deliver results aggressively in market cultures, employees being responsive towards needful tasks as efficiently as possible tends to be an expectation in market cultures. As stated by Sarker and Sahay (2004), employees within an organization being nonresponsive toward needful tasks is often interpreted to be a negative depiction which implies incompetence as well as a lack of commitment by employees. Based on the foregoing, the authors proposed that;

P2: There is a relationship between market culture and response expectation of Technology Assisted Supplement Work of knowledge workers in Sri Lanka

2.3. Hierarchy culture

Work culture demonstrates characteristics such as how firms use a set of shared beliefs and values, leadership styles that act as a bond or glue for corporate employees, and strategic emphases in pursuit of effectiveness (Lund, 2003). Accordingly, the hierarchy working culture was aptly illustrated by Cameron and Quinn (2011) as the culture of an organization that maintains rigid formalizations and structures to function within which policies and procedures control employees in the workplace and steer them on what to do and how to follow. Organizations that motivate the hierarchy culture, leaders take great pride in their ability to efficiently and effectively coordinate and organize tasks at work, and this ability is critical to the smooth operation of the business (Cameron & Quinn, 2011; Anicich. et al., 2015). Predefined protocols and rules are also critical to the smooth and efficient operation of an organization with a hierarchical culture and the success of such a company can only be determined by how well it delivers on time, ease to schedule, and affordability. When it comes to the management of employees in an organization that focuses on hierarchy culture, predictability and job security are

two of the most important elements to take into consideration (Anicich. et al., 2015).

2.3.1. Hierarchy Culture and Response Expectations

According to Anicich, Swab, and Galinsky (2015), a culture of hierarchy may have both positive and negative consequences on the effectiveness of communication inside groups and organizations. Low-ranking individuals in a group are prevented from expressing their thoughts and concerns due to the existence of rigid hierarchies. A lack of psychological safety can also result from hierarchical structures, which can hinder both the communication and performance of a group. On the other hand, groups can successfully recognize crucial errors and prevent them from having bad repercussions when hierarchies enable lower-ranking members to speak out and provide pertinent knowledge (Anicich. et al., 2015). To bridge these hierarchical gaps, a greater emphasis must be placed on communications based on collaborations. Such communications should be reinforced by trust, equity, and two-way partnership discourses that place a particular emphasis on the social elements of employees (Claramita, et al., 2019; Susilo, et al., 2013; Claramita, et al., 2013). Thus, the authors propose the following:

P3: There is a relationship between hierarchy culture and response expectation of Technology Assisted Supplement Work of knowledge workers in Sri Lanka

2.4. Adhocracy culture

Cameron and Quinn (2011) have cited numerous reasons why an organization's culture should be profiled, the concept of an adhocracy culture shows a dynamic, enterprising, and creative environment to work. The extent to which your business needs a strong, dominant culture as opposed to a balanced or varied culture is dependent on its particular circumstances and surroundings. Probably, the decisive element will be the type of constraints your firm faces. Some businesses, for example, must rely on adaptation, innovation, creativity, and entrepreneurship to thrive. Significantly less influence is exerted by control and standardization on the determination of good performance. A culture of robust adhocracy may be ideal for success (Cameron & Quinn, 2011).

In terms of characteristics of adhocracy culture, it is a hallmark of adhocracy culture that employees are willing to put themselves at risk to achieve success. Due to their willingness to take risks, leaders are viewed as pioneers and risk-takers; thus, the company is kept together by its commitment to innovative approaches and experimentation (Keskin, et al., 2004; Desphande, et al., 1993). The third essential element of an adhocracy culture is its emphasis on expansion and the acquisition of new resources. Organizations that have achieved a dominating position in the adhocracy culture evaluate their performance based on their ability to develop innovative and distinctive goods and services. Individual initiative and autonomy are fostered by the organization to achieve its goals (Keskin, et al., 2004).

2.4.1. Adhocracy Culture & Response Expectations

Keskin, Akgün, Günsel, and Mamolu (2004) theorized that employees will be more satisfied with their job in firms that promote clan and adhocracy cultures and place a higher emphasis on mentorship and organizational flexibility. There are higher expectations for positive responses while working in an environment with an adhocracy corporate culture. According to Keskin, Akgün, Günsel, and Mamolu (2004), an adhocracy culture exemplified by entrepreneurialism, inventiveness, and creativity is essential for designing an effective tacit-oriented knowledge management strategy; they are of equal significance. Flexibility and adaptability to external changes are two key characteristics of the adhocracy culture that Gupta (2011) identifies as a hallmark of the adhocracy model (e.g. competitors and customers). Therefore, transforming an organization and responding to the changes in a substantial way may greatly impact response expectations. Statistically, an organization whose rapid adaptability to new changes may be accomplished through communication between people uses the analyzer approach and the adhocracy culture the most (Gupta, 2011). Hence the authors advanced the following proposition:

P4: There is a relationship between adhocracy culture and response expectation of Technology Assisted Supplement Work of knowledge workers in Sri Lanka

2.5. Response expectation and TASW

When workers are engaged in long working hours performing their prescribed workload while remaining connected to their teammates, supervisors, and stakeholders away from the workplace which could be their home, they are engaged in TASW (Fenner & Renn, 2004). Supplement work can be defined as performing job-related tasks with the usage of technology and creating presentations by hand or pursuing business-related materials (Venkatesh & Vitalari, 1992). Technology Assisted Supplement Work is similar to supplement work which is assisted with telecommunication, virtual work, and work at home since it represents remote work (Fenner & Renn, 2004).

Studies have communicated that the other colleagues in a team can be categorized as a social practice that may lead to a norm of engagement and a cycle of high responsiveness (Mazmanian, et al., 2013). Many arguments have been found on employers and employees developing responsive expectations which shape the technology usage in building connectivity to work. A team-level shared expectations on responsiveness can raise the need to be connected after hours (Derks & Tims, 2015). It can also be argued that both material and social practices and expectations in a particular workplace play a vital role in an employee's decision to employ Technology Assisted Supplement Work (Zoonen, et al., 2021). Some supervisors or employers expecting the team members to respond to work-related matters during nonwork hours could also be considered a drive to TASW (Fenner, et al., 2010).

Team levels have their own shared beliefs. This will indirectly influence the responsiveness to expectations. Such shared expectations may wield a compelling form of individual behaviors in social groups which can create great social control (Barker, 1993; Eby & Dobbins, 1997; Taggar & Ellis, 2007). Responsiveness can ally with one's reputation and character. Employees may strategically manage a certain type of image which emphasizes being a sensitive colleague and proficient coworker (Barley et al., 2011, Paczkowski & Kuruzovich, 2016). Equally, non-responsive employees can lead to negative attributes in their characters such as lack of commitment and incompetence (Sarker & Sahay, 2004). Group-level response expectation might be a major area of strength for being such an extent that a colleague's inaccessibility outside available time is acknowledged just when it is by the consent of all (Perlow and Porter, 2009). Fenner and Renn (2004, 2010)

proposed that associations that advance quick response might constrain representatives to stay associated and participate in many supplemental work hours after work.

3. Conclusion

This conceptual paper proposes to research the impact of organizational culture on the technology-assisted supplement work of knowledge workers of Sri Lanka. Technology innovations are considered one of the major contemporary business challenges. Especially after the COVID-19 pandemic, the entire world moved into digitalization. With Technology Assisted Supplement Work, the world moved into work-from-home method and started working for long hours. The response to working long hours in an organization depends on the attitudes of the work crowd. This will directly impact the success of a company as well. An organization consists of many cultures. A culture of an organization is constructed with a combination of several structures. This study mainly is about four basic cultures which are Clan, Market, Hierarchy, and Adhocracy cultures. Several cultures have their very own response level to this innovation. Our examination proposes that TASW is probably going to turn into a developing truth of the day-in and day-out work world. Hence, working families would probably profit from developing alongside this moderately new and developing type of supplemental work as opposed to deliberately ignoring it. Further to this study, the authors suggest a study about the achievement of work-family goals and priorities over Technology Assisted Supplement Work of knowledge workers. There can also be studies on the relationship of TASW and its relationship with work-to-family conflict and the influence that time management skills such as setting goals and priorities have on reducing the positive relationship that TASW has with work-to-family conflict.

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Destination Management in Belfast: A Visitor's Perspective

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Abstract

Despite the importance of tourists as a stakeholder in the overall tourism system, limited emphasis has been given in tourism research in exploring the importance of managing tourist perceptions on overall Destination Management. This paper, therefore, attempts to explore how Belfast has managed its tourism industry from a tourist's perspective by emphasizing the cultural tourism aspect of the city using participant observations and a detailed secondary data analysis. The key findings of the paper identify that Belfast as a destination largely owes its success in the tourism industry to its cultural heritage in all its tangible, intangible, and contemporary forms as it has functioned as a focal point in attracting tourists to the city. It is also evident that the city's DMO [i.e. Visit Belfast] has understood the importance of visitor perspectives in Destination Management and has consistently taken steps to cater to the needs of the tourists effectively and efficiently. However, the city is currently at a phase where it needs to consider adopting sustainable practices to achieve its ambitious goals and sustain its tourism industry in the long run. The paper provides recommendations for destinations like Belfast to carry out destination development based on the three main pillars of the Triple Bottom Line.

Keywords: Destination Management, Visitor Experience, Cultural Tourism, Sustainable Development

1. Introduction

The unrelenting growth of the tourism industry over the past six decades has played a vital role in the development of a multiplicity of destinations globally, with the industry contributing a phenomenal USD 1,220 billion to economies across the world (OECD, 2009; UNWTO, 2017). Belfast, the capital city of Northern Ireland, is one such destination that has witnessed such outstanding growth as a consequence of the growth of the tourism industry in the region, where the industry contributed a remarkable GBP 122 million to the local economy along with 1.5 million overnight trips to the city in 2016 alone (VisitBelfast-e, 2016).

As elucidated by Ortigueira & Gómez-Selemeneva (2011), the growth and development of a tourist destination are dependent upon several factors such as the host community, culture, security, accessibility & natural resources of a destination and how it successfully utilizes such resources to build the tourism industry in the region. However, from a tourist's perspective, the 'culture' of a city has been identified as a dominant motivational factor to travel amongst other factors (OECD, 2009). Even in the context of Belfast, as one of the first cities in Europe to specifically target the cultural tourism market, the cultural richness of the city has been one pivotal factor for the development of the city as a tourist destination, where the Belfast culture has been identified as one of the most prized assets of the tourism industry of the city (Sutherland, 2008; Belfast City Council, 2015).

Considering the above, this paper attempts to assess how Belfast has managed its tourism industry from a tourist's perspective by emphasizing the cultural tourism aspects of the city. Hence, following this introduction, this paper initially reviews the concepts of Destination Management from a visitor perspective and cultural tourism. Based on participant observation and analysis of secondary data, this paper critically analyses how Belfast has managed its tourism industry with a specific emphasis on the cultural tourism sub-sector. Ultimately the paper is concluded with a list of recommendations on how the city can potentially improve the destination using sustainable development as a base factor.

2. Literature review

2.1 Understanding visitor perspectives in destination management

The tourism system has long considered tourists or visitors to be one of the most important, if not the most important stakeholder in the industry in both its academic and industrial contexts (Sautter & Leisen, 1999). However, as Pearce & Schänzel (2013) points out, despite tourists being considered as a central focus in tourism, the perspective of the tourists has been given little attention when it comes to the management of destinations that engage in the business of tourism. Also, Packer & Ballantyne (2016) further points out that understanding visitors and their perspective on the experiences they had on a given destination is highly important since it allows the DMO's to concentrate on the aspects that are important to tourists.

Nonetheless, in line with the above statement, some researchers have distinctively identified the importance of centralising on visitor perspectives in destination management where they highlight the orientation of tourism services to satisfy the needs of their visitors to deliver a memorable experience (Fuchs & Weiermair, 2004; Zehrer, et al., 2005). However, (Clawson & Knetsch, cited in Pearce & Schott, 2005) elaborates that when giving prominence towards visitors in Destination Management, the dimension of understanding the extended behavioral phases that visitors go through during their travel process; i.e. pre-purchase phase, traveling to the destination phase, on-site phase, returning phase and ultimately extended memory recall phase needs to be given critical attention to formulate an effective destination management strategy.

2.2 Understanding cultural tourism

As identified by Hughes (2002), culture and tourism have had a mutually beneficial relationship for a long-standing period where the relationship between the two elements has been actively encouraged by industry practitioners from both parties over the years. As a result, the themes of culture and tourism have also gained tremendous popularity in the academic context making 'cultural tourism' one of the most researched areas of study under tourism (Barré & Jafari, 1997).

Despite cultural tourism being considered as one of the earliest forms of tourism in the world and the vast amount of studies done concerning this particular subject

area (Rohrscheidt, 2008) the concept of 'Cultural Tourism' remains relatively amorphous without a universal definition (Vasiliadis, et al., 2016). As elaborated by a plethora of authors, the task of devising an authoritative definition for the concept of Cultural Tourism has proven to be an extremely difficult feat due to the ever-changing nature of the scope of the concept along with the constant changes made by travelers in the way they consume 'cultural' products (Richards, 1996; OECD, 2009; Duhme, 2012).

Considering the above, this review does not attempt to create an all-embracing definition to the concept of cultural tourism. Instead, it focuses on curating a definition that can be specifically used in the process of analysing the cultural tourism sector in Belfast (Tomlinson, 1991). Hence, to develop a working definition for the paper, this review initially surveys some of the previous definitions of 'Cultural Tourism' in both academic and industrial contexts in Table 1 below:

Table 1. Cultural Tourism definition analysis

Author	Definition
1970's	
(ICOMOS, 1976, cited in Csapo, 2012)	<i>'Cultural tourism is that form of tourism whose objective is, among other aims, the discovery of monuments and sites'</i>
1980's	
(WTO, 1985, p. 131)	<i>'Cultural tourism includes movements of persons for essentially cultural motivations such as study tours, performing arts and other cultural tours, travel to festivals and other cultural events, visit sites and monuments, travel to study nature, folklore or art or pilgrimages'</i>
(Tighe, 1986, p. 02)	<i>'A term which encompasses historical sites, arts and crafts fairs and festivals, museums of all kinds, the performing arts and the visual arts'</i>

1990's	
(Tighe, 1991, p. 387)	<i>'cultural tourism is travel undertaken with historic sites, museums, the visual arts, and/or the performing arts as significant elements'</i>
(Silberberg, 1995, p. 361)	<i>'Visits by persons from outside the host community motivated wholly or in part by interest in the historical, artistic, scientific or lifestyle/heritage offerings of a community, region, group or institution'</i>
2000's	
(McKercher & Du Cros, 2005, pp. 211-212)	<i>'A form of tourism that relies on a destination's cultural heritage assets and transforms them into products that can be consumed by tourists'</i>
(Richards, 2010, p. 15)	<i>'Movements of persons to specific cultural attractions, such as heritage sites, artistic and cultural manifestations, arts and drama outside their normal place of residence'</i>

When analysing the above definitions chronologically, it is evident that the early approaches towards defining 'Cultural Tourism' primarily focused on the physical attractions of a given destination that has a significant cultural value (Richards, 1996). However, over the past three decades, a broader image of the concept of 'Cultural Tourism' has emerged where the concept is seemingly being referred to as a psychological experience and a process of learning where a tourist actively engages with the host population of a given destination to experience the uniqueness of their culture (Mousavi, et al., 2016). Additionally, the concept has also increasingly highlighted how the tourist motivation plays a critical role in defining cultural tourism since in the present context, while some tourists purposively travel intending to visit cultural attractions, another group have the very insignificant cultural motivation and merely become accidental or incidental cultural tourists upon visiting a destination (Petroman, et al., 2013).

Cultural tourism has long been acknowledged and emphasized by Destination Management Companies when promoting destinations as a result of the increased

attractiveness of the sector amongst modern travellers (Tan, et al., 2016). Considering the importance of this sub-sector, this paper defines Cultural tourism as '*Movements of visitors to a given destination with a full or partial interest of experiencing its cultural offerings*'. Additionally, the term 'Cultural offerings' in the aforementioned definition has been used to encompass several cultural aspects, which have been segmented into three major components for this analysis as suggested (UNWTO, 2018): tangible cultural offerings (e.g. national & world heritage sites, monuments, historical places & buildings, etc.), intangible cultural offerings (e.g. crafts, gastronomy, traditional festivals, etc.) and contemporary cultural offerings (e.g. films, performing arts, fashion, and new media, etc.).

Furthermore, tourism researchers and industry practitioners have increasingly identified an important relationship between the cultural offerings of a destination and Destination Management from a visitor's perspective as well. As elaborated by Zeng (2017) cultural offerings are critical for the success and the sustainable development of a tourist destination where cultural tourism has an increased impact on the overall visitor satisfaction levels of tourists leading towards enhancement of the core values of the tourism product offered by a given destination (Valle, et al., 2011). As a result, the way a Destination Management Company projects their destinations' traditions and cultures to their potential visitors has been identified as a critical consideration in contemporary Destination Management (Morgan, 2012).

Considering the aforementioned key aspects discussed in the review, this paper critically evaluates how Belfast as a city has carried out its destination management function from a visitors' perspective with specific emphasis on the cultural tourism aspect of the city. Furthermore, the paper has also adopted the classification of visitor behavior by Clawson & Knetsch (cited in Pearce, 2005) with a slight modification of adjusting the five phases into three major phases [namely Pre-visit, on-visit, and post-visit] for the ease of this analysis as well.

3. Methodology

3.1. Research design

This research adopted a case study strategy as it has been used extensively in the social sciences to examine various types of research questions (Dezin and Lincoln, 1994; Yin, 1994). Both theoretical and practical considerations played important roles in choosing the empirical area (case study). Following the initial research goals, this chosen area had to have a relatively mature tourism industry and cultural tourism activities; offering service encounters at diverse visitor facilities and exhibiting advanced quality management practices. Hence, key tourist attractions in Belfast were selected as empirical regions (case study) such as Titanic Belfast, Ulster Museum, St George's market, Belfast City Hall, and St Anne's Cathedral.

3.2. Data collection

Gill and Johnson (2002) developed a four-fold categorisation of the role the participant observer can adopt, and this research used the participant observation method. Although such method includes "the relatively prolonged immersion of the observer in a social setting in which he or she seeks to observe the behavior of members of that setting (group, organisation, community, etc.) and to elicit the meanings they attribute to their environment and behavior"(Bryman and Bell, 2011:272), it allows behavior to be observed directly and "far greater insight into the issue of what managers do" (Bryman and Bell, 2011:270). Primary data were collected based on participant observation during a fieldwork visit to Belfast from 26th February to 2nd March 2018. Titanic Belfast and Titanic Studios and tourism information centre were visited on 27th February and other cultural attractions (e.g. Ulster Museum, St George's market, Belfast City Hall and St Anne's Cathedral) were visited on 1st March. During the visits, conversations were carried out with tourists to understand their experience and overall satisfaction levels in Belfast, and what Belfast could do differently to make them more satisfied. Talks with staff at different attractions and tourism information centres were used to understand how they provided services and contributed tourist experience in Belfast. Many pages of fieldwork notes and promotional brochures were taken for further analysis.

Even though secondary data-based researches are sometimes deemed to be a relatively inferior method of research, Gordon (1995) argues that the significance of secondary data-based research is dependent upon the context in which the research is done making secondary research a valid approach to research in its own right (Heaton, 2012). Hence considering a large amount of published data available with regards to the Belfast tourism industry, secondary research was conducted where a wide array of data with regards to the destination marketing and management in Belfast was gathered through a thorough review of websites of destination management organisations, local newspapers, local council documents, Journal articles, and relevant magazines.

3.3. Data analysis

A thematic analysis was adopted to analyse the fieldwork notes taken during the field trip to Belfast. Savin-Baden and Howell Major (2013) defined thematic analysis as a method of identifying, analysing, and reporting patterns in the data set. Such a process is one of 'characterising, cutting, coding, categorising, converting and creating knowledge' (Brunt, Horner, and Semley, 2017: 243). Therefore, it is about identifying the themes and applying these to the data itself.

A summative content analysis was also adopted to analyse a range of secondary data collected from different sources and Hsieh and Shannon (2005) seven classic steps for qualitative content analysis were followed. Content analysis (CA) is a widely used research method (Berg, 2009; Hsieh and Shannon, 2005) in social science as *'this is a well-defined technique for making inferences by systematically and objectively identifying specified characterises of method'* (Brunt et al., 2017:254). There is a range of uses of CA in the tourism field (Camprubi and Coromina, 2016), such as the study of advertising and brochures (Huang and Liu, 2009; Govers and Go, 2005), the examination of the context of texts written by tourists (Dincer and Alrawadieh, 2017; Xiang et al., 2017) themselves or the identification of different understandings of conceptual issues in tourism (Camprubi and Coromina, 2016; Yousuf and Backer, 2015).

4. Findings and discussion

This section presents findings from both primary and secondary data on how effectively and efficiently Belfast has managed itself as a tourist destination across three tourist behavioral phases.

4.1 Pre-visit destination management analysis

The pre-visit behavioral phase of most tourists is largely dedicated to the searching of information where potential tourists attempt to gather as much information as possible with regards to the destination, they hope to visit to avoid any uncertainties during their tour (McCleary & Whitney, 1994; Gursoy & McCleary, 2004; Chang, et al., 2015). Such information found in the pre-visit phase then plays a critical role by forming a destination image in the minds of the potential tourists, which leads to the final purchase decision of the consumer (Baloglu & McCleary, 1999).

As elaborated by Lončarić, et al.(2013), in many destinations, the formation of this destination image and then using this image to promote the tourism industry of the region is primarily a function of the Destination Management Organization. As a result, DMO websites function as an important source of information provider for potential tourists during their pre-trip planning course (Choi, et al., 2007). Even in the context of Belfast, the official DMO website of the city [i.e. visitbelfast.com] has been a major source of information for potential tourists where a staggering 6 million consumers visit the website each year (Visit Belfast-d, 2017). Considering this, table 2 evaluates the DMO website using the conceptual model of DMOs' website evaluation proposed by Li & Wang (2010) from a visitors' perspective along with observations made by the author by visiting the website.

This analysis showcases that Visit Belfast is a content-rich website providing potential tourists with valuable insights regarding the destination. However, the website is clearly on the back foot in terms of customer engagement and online relationship maintenance aspects.

However, the DMO website alone is not the only facilitator for destination image or sole provider of information as potential tourists tend to search for information

using a variety of sources (Ho, et al., 2012). As proposed by (Gartner, 1994), induced, autonomous and organic forces play a role in forming the destination image from the perspective of a tourist. Hence this Pre-visit destination management section focuses on discussing the induced & autonomous forces whilst the predominant organic source; word of mouth is discussed under the post-travel destination management section later in this paper.

Table 2 - Visit Belfast website analysis

Dimension	Y	Discussion	Observations from Visit Belfast Official website
Information Dimension			
Attraction & activities information	✓	As stated by Kaplanidou & Vogt (2004) information or content is considered as the 'king' amongst all website characteristics. In essence, a DMO website should be able to effectively satisfy the information preferences of any person visiting the website by publishing information on a number of aspects with regards to a destination such as its attractions, events, accommodation, and transportation (TIA, 2004; Luna-Nevarez & Hyman, 2012).	The website offers a wide array of information ranging from where to stay, how to get to Belfast, how to travel within Belfast, where to eat, special events and festivals, and several other details. Additionally, the website is also neatly categorised into 4 main segments of visitor, conference, cruise, and corporate to provide in-depth information for any form of potential tourist who visits the website.
Maps & directions	✓		
Destination background information	✓		
Themed products	✓		
Events Calendar	✓		

Communication dimension			
Search Function	✓	Amongst the multitude of factors that visitors expect from a DMO website, functionalities such as searchable lists and Chatbots have increasingly started gaining prominence in the tourism industry (Choi, et al., 2007; Reeves & Walker, 2018). In other words, visitors are seeking frequent two-way communication when they visit DMO websites as they expect these websites to be ready to answer their travel-related queries promptly (Li & Wang, 2010).	Apart from enabling the search function in the website, it has also enabled a ‘Most viewed’ section in the homepage itself, allowing visitors who are visiting the website to get an understanding of what other visitors are seeking to do in Belfast, which can assist them with their decision-making process. However, there is no presence of an online chatbot, online forum, or FAQ section and the website does not allow commenting on any of the sub-pages of the website inclusive of their official blog page.
Interactive communication tools	X		
Online forum	X		
Comment box	X		
Online survey & FAQ	X		
Transaction dimension			
Online Reservation	X	As (Li & Wang, 2010) states enabling a transaction function in a DMO website enables DMOs to generate revenue for both internal & external stakeholders. Hence, as (Luna-Nevarez & Hyman, 2012) further elaborates a DMO	Interestingly the Visit Belfast official website has not enabled online reservations for any function within the website. However, the site does provide detailed information about all available attractions, events, and
Secure transaction	X		
Attraction tickets	X		
Event tickets	X		
Shopping carts	X		

		website should be capable of satisfying at least the fundamental commercial transactions required by potential visitors such as accommodation and special event bookings.	accommodation facilities in the city and also provides direct links to the main websites of the respective partners for any potential visitor who is interested in making an online reservation.
Relationship dimension			
Personalisation	X	The relationship dimension of DMO websites is being viewed as a top priority in the travel industry as a mode of conversing, retaining, and assisting potential tourists online (Sabre.com, 2017). In other words, personalising in an online platform has been identified as a top digital priority as it allows destinations to build stronger connections with potential consumers who may decide to visit their region (Inspiretec, 2018).	The website has limited personalisation functions and also does not have a specific section to handle any visitor complaints as well. Even though the website doesn't have any virtual tours, it has highlighted the 'Belfast: Go Explore 360' a virtual reality mobile application, allowing visitors who are interested in such VR experiences before they travel with valuable information. Additionally, the website is also partnered with several external stakeholders including accommodation providers and event organisers, and facilitates many cross-selling
Complaint handling	X		
Best deals	✓		
Virtual tours	X		
Cross-selling opportunities	✓		

			opportunities within the website as well.
Technical Merit dimension		As (Li & Wang, 2010) states the relative effectiveness of a DMO website is highly dependent upon how it successfully integrates the technological aspect of the web with the marketing aspect of the destination. Furthermore, (Kaplanidou & Vogt, 2004) also state that easy accessibility, ease of navigation within the website through well-organised sub-pages, and consistency among the typeface and colour schemes used within a website are essential technical considerations that help in attracting a technologically savvy travel population.	The website is highly maneuverable with easy access to the home page with a click on the 'Visit Belfast' logo from any sub-page. The website is also efficiently linked to all of its official social media pages and the google meta tags are well-written making 'Visit Belfast' appear as the first search reference for anyone who searches the term 'Belfast'. The website has been optimised for mobile and tablet viewing as well.
Legend Y – Availability or unavailability of the function in the Visit Belfast website ✓ – Available on the website X – Unavailable on the website <i>**This analysis is done based on the older version of the website</i>			

4.1.1 Induced Forces

Even amongst the aforementioned three factors suggested by (Gartner, 1994), DMO's has a higher possibility of creating a positive image in the minds of the visitor through induced forces that relate to conventional advertising means since such messages are typically delivered by the DMO's themselves (Beerli & Martin, 2004). Hence, table 3 evaluates how such induced forces has enabled the formation of a visitor image on Belfast city amongst their visitors using examples from the 3 major marketing campaigns of Summer 2017 Campaign [SC], Christmas 2017 Campaign [CC] and Belfast Go explore Campaign [BGC].

Table 3 – Integrated Marketing Campaign Analysis

Factor	Discussion	Observations and Analysis
Offline advertising	As (Xiang, et al., 2015) argue, despite the internet assuming the leading role in information provision for travellers, other sources of information provided such as television and radio remain relevant amongst most travellers. Hence, such offline advertising mediums still have the possibility of creating a degree of disruption and 'push' the consumers towards purchasing a travel product as well (Gretzel, et al., 2000).	<ul style="list-style-type: none"> - Both SC & CC engaged in the distribution of leaflets in areas in which their target audiences resided with 67,000 & 100,000 leaflets per campaign, respectively. - CC also engaged in TV & Radio advertisements across many channels such as UTV, ITV, and Cool FM, RTE Radio 1. - Both SC & CC advertised on billboards using creative artworks in Dublin and Northern Ireland.
Sales Promotions	Sales promotions have always been an attractive marketing element for most visitors as they usually include some type of incentive attached to them	<ul style="list-style-type: none"> - SC carried out a special 'Win a unique trip to Belfast for two' competition - CC carried out several competitions such as 12 days of

	(Christou, 2011). Even amongst various sales promotions tactics, promotional competitions have stood out from a visitor's perspective as they perceive it as a form of further encouragement to purchase a travel product which they are already interested in (Peattie & Peattie, 1996).	Christmas giveaway, a Magical festive family trip to Belfast & a collaborative competition on the radio with U105 radio.
Online & marketing	In today's context, the initial destination image for most potential visitors regarding a destination is formed in an online platform as a result of online marketing by an internal or external party (Pan & Li, 2011). Most consumers also believe that the content published in online sources, including social media sites such as Facebook and Instagram, to be a highly trustworthy source of information, demonstrating that online marketing efforts are a crucial tool in establishing a positive visitor perspective for a destination (Fotis, et al., 2012).	<ul style="list-style-type: none"> - Both SC & CC carried out sponsored and promoted Facebook & Instagram advertisements specifically targeting their respective audiences. These campaigns alone created more than 2.5 million impressions on their official pages. - CC also carried out digital display advertising on google resulting in 900,000 impressions from potential consumers in Ireland. - CC carried out a comprehensive email campaign amongst 450,000 potential consumers across Ireland and UK. - BGC entirely focused on a mobile platform where promotions were made to push

		potential tourists to download the app. before they arrived in Belfast
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Even though it is difficult to quantify how such campaigns impact a visitors perspective on a destination, 12 similar campaigns run by Visit Belfast in 2016 successfully generated 445,000 bed nights and 58 million GBP in revenue to the city, showcasing that such campaigns play a critical role in attracting visitors by creating a positive image about the destination in the minds of the potential tourists (VisitBelfast-e, 2016).

4.1.2 Autonomous Forces

As (Gartner, 1994) elucidates, autonomous sources refer to independent image producers such as books, films & documentaries that are separate from the direct forces discussed in the earlier section. Even amongst such autonomous forces, film-induced tourism has increasingly come into the spotlight as critical awareness and motivation creator for potential visitors to visit a given destination where a particular movie/ television series has been filmed (Busby & Klug, 2001; Tkalec, et al., 2017). Even in the case of Northern Ireland and Belfast, the popular HBO TV series 'Game of Thrones' has been their single largest autonomous force driving the tourism industry bringing in an unprecedented number of fans of the show to the region whilst generating millions to the local economy (The Irish News, 2016).

This hit TV series has helped Belfast in creating a positive destination image, and despite the DMO having little control over the indirect marketing the destination is getting through the series; Visit Belfast has extensively used this opportunity to remodel Belfast's destination image to attract fans through initiatives such as dedicated Game of Thrones web page in the DMO website, Rebranding the airport as 'Westeros Airport' and featuring Game of Thrones attractions (Example – Game of Thrones Tapestry in Ulster Museum) within its existing cultural attractions (Hahm & Wang, 2011). The image Game of Thrones has built on potential tourists therefore been significant, with a tremendous £150 million being generated to the North Irish economy including Belfast in 2016 being a great testament for this matter (Girvin, 2016).

4.2 On-visit destination management analysis

As Bornhorst, et al. (2010) elaborate, there is a multitude of variables that needs to be placed by a given DMO before the arrival of any potential tourist to ensure that the tourists experience a memorable stay at their destination. An analysis of fieldwork notes, it is clear that in Buhalis (2000), four out of 6As [namely – Attractions, Accessibility, Amenities, and Activities] are considered as defining factors of success influencing the tourist experience and satisfaction in Belfast. Hence, this section of the paper presents a critical assessment on-visit experience of tourists in Belfast from these four aspects.

4.2.1 Accessibility & Amenities

Despite the increased use of the web for information gathering, Visitor Information Centres make a significant contribution to the overall visitor experience of travellers by providing quality information about the destination upon their arrival (Mistilis & D'ambra, 2008). Hence, as presented by (DiPietro, et al., 2007), visitor centres remain as a typical source of information for travellers while they are at a destination showcasing the importance of having an established Visitor Information Centre that can cater to the varying needs of tourists visiting the destination. Additionally, visitor centres are also key places in which tourists could obtain a 'visitors guide' on the destination, which remains the most influential source of information being used, especially amongst international travellers while in a destination (Pearce & Schott, 2005). The main visitor centre operated by Visit Belfast is centrally located right in front of the Belfast City Hall with easy access from anywhere within the city and also directly from the airport [via the airport express]. The centre gives a range of information on what to do, where to stay and eat in Belfast (Belfast City Council, 2018). Most importantly the visitor information centres provide tourists with a free visitor guide to the city which comprehensively details must-see attractions, special events, tours and places to eat, etc. (VIsit Belfast-j, 2018). Furthermore, another interesting observation of the main visitor centre was that it offered souvenirs & gifts for sale which were relevant for both Northern Ireland and the Republic of Ireland as well.

Accessibility is a key element that links tourists to destinations making it a vital consideration for tourists when deciding with regards to visiting a specific country or region (Toth & David, 2010). Hence it is apparent that visitors tend to consider

the costs & the distance attached to visiting a specific destination before making a purchase decision with regards to travel (Celata, 2007). In this sense, making the destination at hand accessible and making the modes of transport to the destination reasonably priced are essential components for a DMO to attract an increased number of visitors to the region. Belfast is easily accessible to visitors from North America and over 20 European countries through their two airports (International & City). It can be reached by sea from both England & Scotland. Belfast can be reached either by road, by bus, or even by rail for any potential visitors from the Republic of Ireland as well (Visit Belfast-g, 2018). Visit Belfast also offers a 'Visit Belfast Pass' which the visitors could use for unlimited travel in Metro buses, NI Railways, and Ulsterbus services for a fixed charge making travelling within the city very convenient (Visit Belfast-h, 2018). Belfast city is also conveniently divided into 4 main quarters as Cathedral, Titanic, Queens & Gaeltacht each with its unique & distinctive attractions (Sutherland, 2008). Since the city is quite compact, walking, cycling, and taxi services are also feasible options for visitors travelling within the city (Visit Belfast-i, 2018).

4.2.2 Attractions

The growth of the internet and mobile technology has resulted in a significant change in the visitor behavior, where most travellers have seemingly started desiring more flexibility in the travel where they postpone and hold on to making secondary decisions such as attraction and activity bookings until they arrive at a destination without pre-booking (Pearce & Schott, 2005; Xiang, et al., 2015). However, upon arriving at a destination, visitors either voluntarily or involuntarily consider several aspects when selecting attractions to visit, which as (Swarbrooke, 2002) highlights are considered as product-based factors that determine the success of an attraction. Hence, some of these factors are analysed whilst deriving examples from the tangible cultural offerings highlighted in the literature review section above to understand how the attractions within Belfast are being managed in table 4 below:

Table 4. Attractions Highlights

Factor	Examples from Belfast
Unique concepts	The Titanic Belfast is one of the most unique attractions in its wake in the world (Titanic Belfast, 2018). A fascinating 159 reviewers in TripAdvisor specifically using the word ‘unique’ to describe Titanic Belfast is also a great testament to show how novel the concept of this attraction is as well (TripAdvisor, 2018). The ship HMS Caroline is considered a unique survivor of world war 1 and a ship of its kind (Visit Belfast-k, 2018). Fourteen reviewers have highlighted this attraction as 'Unique' in Tripadvisor too (TripAdvisor-b, 2018).
Location of the attractions	As mentioned in the official DMO website, attractions such as the Belfast City Hall, Ulster Museum & Crumlin Road Gaol, are located within a 2km radius from the city center, while Titanic Belfast & HMS Caroline are located within a 5km radius, showcasing that visitors can cover multiple attractions within a short amount of time as most attractions are located close to each other (Visit Belfast-l, 2018).
Visitor facilities	Whilst all attractions taken into consideration have quality basic facilities such as clean toilets and information facilities, attractions such as Titanic Belfast, Ulster Museum offer car parking and dining facilities as well (Titanic Belfast, 2018).
Price	Some of the city’s infamous attractions, such as the Belfast City Hall and Ulster Museum, are open to visitors without any entrance tickets (VIsit Belfast-j, 2018). Additionally, most ticketed attractions (Crumlin Road, Titanic Belfast) in the city have also been considered as good value for money by many tourists across reviews.

In addition to the above, Swarbroke (2002) also highlighted that factors such as quality customer service, high-quality environment, and offering variety at the attractions also assisted attractions in attracting visitors.

4.2.3 Activities

As highlighted by Russo & Van Der Borg (2002), when a given destination does not have sufficient tangible cultural assets to develop a viable tourism industry, it needs to concentrate on promoting other forms of culture such as special events and gastronomy to bring out a diverse and attractive destination image as well. Even though Belfast does not specifically lack tangible cultural offerings, the city offers many intangible and contemporary cultural offerings to compliment the overall tourism product of the destination, as highlighted below:

4.2.4 Gastronomy

Food is considered as one of the key elements of the culture of any society where tourists believe that experiencing new cuisines in visiting destinations is a part of experiencing the culture of that particular destination (Fields, 2002). As (Kivela & Crofts, 2006) further elaborates gastronomy-based tourists do not consume food & drinks at a visiting destination merely to satisfy their hunger, instead they use it as a method of gaining in-depth knowledge about the destination's culture. Hence, destinations need to consider and capitalise on gastronomy as a vital resource that can attract potential tourists to their region (Sánchez-Cañizares & López-Guzmán, 2012).

As displayed in the official DMO website, Belfast already has a remarkable 47 gastronomy-based events planned out for 2018 starting from mid-March until the end of the year (Visit Belfast-n, 2018). A highlight amongst these gastronomical events is 'Belfeast', an artisan street food market specialising in North Irish food which portrays the city's culture to visiting tourists (Visit Belfast-o, 2018). Additionally, as per TripAdvisor, there are another 13 gastronomy-related tours/experiences organised within the city of Belfast ranging from cookery classes to beer tastings, each with very high customer ratings showcasing that gastronomy is a strong cultural motivator for travellers to visit Belfast (TripAdvisor-d, 2018).

4.2.5 Traditional events & festivals

Due to their perceived attractiveness, DMO's worldwide effectively promote local traditional festivals as a form of tourist attractions (Felsenstein & Fleischer, 2003). From the perspective of a visitor who is attracted towards special interest tourism activities, a traditional event of a foreign destination may appeal as a mode of experiencing the culture of the given area, motivating them to visit the particular destination as well (McKercher, et al., 2006).

Belfast city is home to many annual traditional events and festivals ranging from St. Patrick's Day celebrations to events such as Belfast Titanic maritime festival and 'Féile an Earraigh' that attract thousands of tourists year on year (Visit Belfast-r, 2018). For an instance, the St. Patrick's Day celebrations in Belfast attracted thousands of visitors to the city in 2018 despite harsh weather conditions showcasing the stimulating effect such events have on potential visitors to visit a given destination (Madden, 2018).

4.2.6 Music & Performing Arts

As elaborated by (Dolnicar, 2002) theatre & performing arts has become a popular subsector within cultural tourism, where a new genre of tourists has emerged within the tourism system with a specific need of visiting theatre, music, or opera performances at least once during a given trip to a destination. These omnivore's cultural tourists have been identified as a seemingly important segment of tourists for DMO's because, despite their specific interests, such tourists also tend to experience a breadth of cultural activities while touring, generating further economic benefits for the destination (Barbieri & Mahoney, 2010).

As listed on the DMO website, Belfast has 144 scheduled music events & concerts scheduled from mid-March to the end of 2018 ranging from cultural music events such as the Ulster Orchestra to international concerts featuring renowned global artists and bands such as Jason Derulo and Avenged Sevenfold (Visit Belfast-p, 2018). At the same time, Belfast also has a range of contemporary arts & craft-based events, whereas per the DMO website, there are 37 events listed for 2018 ranging from photo & arts festivals to contemporary orchestra performances (Visit Belfast-q, 2018). As highlighted by (Wiemers, 2017; McCreary, 2018), the performing arts such as the Ulster Orchestra in Belfast have often been referred to

as brilliant, showcasing the value of such activities for the city's tourism industry from a tourist perspective.

4.3 Post-visit destination management analysis

As Chi (2015) suggests, the ultimate goal for any DMO is to ensure that the tourists who visit their destination leave their city/ country with a long-lasting memory amassed through engaging in remarkable and unforgettable experiences during their holiday at the given destination. Even from a visitor's perspective, the level of satisfaction they derive from their holiday has a strong direct relation to destination loyalty where if the destination has met or exceeded their expectations, their image on the destination will improve significantly, resulting in word of mouth marketing and/or repeat visitations as well (Jani & Nguni, 2016; Antón, et al., 2017). This phenomenon has measured visitor satisfaction as an important attribute in destination management as it is increasingly being considered as a leading indicator of destination performance (Meng, et al., 2008; Wang, 2016).

4.3.1 Visitor Satisfaction

Despite a plethora of visitor satisfaction measurement models, this review utilises TripAdvisor reviews to derive insights on visitor perspectives regarding Belfast. Since most tourists are usually motivated to share a review online either when they go through a negative experience or a highly positive experience at a destination (Yoo & Gretzel, 2008), analysing Tripadvisor has allowed this paper to obtain valuable insights about the success of a destination from a visitors' perspective (Kladou & Mavragani, 2015). Hence the below table 6 examines the overall TripAdvisor ratings of the top cultural tangible/intangible & contemporary cultural offerings of Belfast analysed throughout the review while drawing out comparisons from Google & Facebook reviews as well:

Table 5. TripAdvisor review analysis

	TripAdvisor	Google Reviews	Facebook reviews
Tangible			
Titanic Belfast	4.5 out of 5	4.4 out of 5	4.5 out of 5
Belfast City Hall	4.5 out of 5	4.5 out of 5	N/A
Ulster Museum	4.6 out of 5	4.5 out of 5	4.8 out of 5
Crumlin Road Gaol	4.5 out of 5	4.6 out of 5	4.5 out of 5
Belfast Castle	4.0 out of 5	4.4 out of 5	4.3 out of 5
St. George's Market	4.5 out of 5	4.6 out of 5	4.8 out of 5
St. Anne's Cathedral	4.0 out of 5	4.2 out of 5	4.5 out of 5
Grand Opera House	4.5 out of 5	4.6 out of 5	4.6 out of 5
HMS Caroline	5.0 out of 5	4.6 out of 5	4.9 out of 5
Stormont (Parliament)	4.5 out of 5	N/A	4.2 out of 5
Intangible/ Contemporary			
Belfast food tours	5.0 out of 5	5.0 out of 5	5.0 out of 5
Ulster Orchestra	N/A	5.0 out of 5	4.9 out of 5
Game of Thrones tours	5.0 out of 5	4.5 out of 5	4.9 out of 5
Echlinville Distillery tour	5.0 out of 5	5.0 out of 5	N/A
Black taxi tour	4.5 out of 5	5.0 out of 5	5.0 out of 5
Belfast Walking tour	5.0 out of 5	3.8 out of 5	5.0 out of 5
Belfast Mural tour	5.0 out of 5	4.8 out of 5	N/A
Seedhead arts tour	5.0 out of 5	N/A	5.0 out of 5

By analysing the aforementioned overall reviews for each attraction across TripAdvisor, Facebook and Google it is evident that most attractions are maintaining highly satisfactory levels of feedback testifying that tourists visiting Belfast are happy with what the city is offering. However, apart from a few notable exemptions, it was noted that most of the above attractions had not responded to the client reviews in any of the platforms despite the critical importance of responding to such reviews, especially if they highlight any negative comments (Campbell, 2016).

Even from a DMO's perspective, visitor performance measurement has been identified as part of industry best practice, and DMO's have been forced to adopt comprehensive visitor satisfaction measurement models to remain competitive in the industry (Phillips & Louvieris, 2005). Belfast city has also adopted an annual survey to measure visitor satisfaction, and the year-on-year results of the survey are displayed in Table 6 below:

Table 6. Tourist Satisfaction Analysis

Year	Belfast Welcome	Attractions
2005 (Belfast City Council, 2005)	8.25/10	7.54/10
2006 (Belfast City Council, 2006)	8.30/10	7.67/10
2007 (Belfast City Council, 2007)	9.40/10	7.84/10
2008 (Belfast City Council, 2008)	8.66/10	8.03/10
2009 (Belfast City Council, 2009)	9.50/10	8.43/10
2010 (Belfast City Council, 2010)	9.30/10	8.54/10

2011 (Belfast City Council, 2011)	8.68/10	8.51/10
2012 (Belfast City Council, 2012)	8.45/10	8.09/10

Even though the most recent visitor satisfaction survey results are yet to be published, the aforementioned chart showcases that Belfast as a destination has remained highly consistent in delivering its tourism product by continuously scoring very high marks in the annual visitor surveys, which resonate with the findings from the above TripAdvisor review analysis as well.

4.3.2 Visitor Recommendation

As highlighted by Murphy, et al (2007), potential tourists view word of mouth as one of the most credible sources of information which have a direct impact on the purchase decision of a holiday to a given destination. Even in the context of Belfast (Belfast City Council, 2008) testifies that many tourists visiting Belfast rely heavily on word of mouth recommendations when making their travel choices showcasing the critical role WOM plays in aligning a visitor's image with regards to the destination. Hence, ensuring that the visitors leaving the destination provide positive word of mouth to their friends or relatives or even online is critical for destination success (Ranaweera & Prabhu, 2003). As per the findings of the Belfast City Council's visitor surveys from 2005-2011, apart from a considerable fluctuation in 2011, almost three-quarters of the tourists who visited Belfast were likely to recommend the city as a tourist attraction to others. This figure comprehensively showcases that from a visitor's perspective, Belfast has been managed well, resulting in a higher probability for the visitors to recommend the destination to others.

5. CONCLUSION AND RECOMMENDATIONS

The critical assessment of destination management in Belfast showcases that the city is currently experiencing unprecedented growth in the tourism industry. It also shows that Belfast as a destination largely owes its success in the tourism industry to its cultural heritage in all its tangible, intangible, and contemporary forms as it has functioned as a focal point in attracting tourists to the city. It is also evident that the city's DMO [i.e. Visit Belfast] has understood the importance of visitor

perspectives in destination management and has consistently taken steps to cater to the needs of the tourists effectively and efficiently. However, the city is currently at a phase where it needs to increasingly consider the adoption of sustainable practices to achieve its ambitious goals and sustain its tourism industry in the long run. The concept of sustainability has come into the spotlight in the tourism industry, where both academic and industry practitioners have increasingly identified the importance of developing destinations sustainably (Curtin & Busby, 1999; Buckley, 2012). As elaborated by Vellecco & Mancino (2010) if the tourism industry is adequately channelled towards the path of sustainable development, the industry will not only show significant improvements in terms of economic growth but will also create social progress and enhance the cultural and natural heritage of the destination as well.

Considering the above, this section aims at providing recommendations for destination Belfast to carry out destination development based on the three main components of the Triple Bottom Line which are considered to be an ideal framework for sustainable tourism development (Stoddard, et al., 2012).

5.1 Economic bottom line

Engage in conventional marketing at high potential markets

Despite the rise of the internet as the leading marketing channel for tourism, Howell (2017) elaborates that traditional forms of advertising are still being openly welcomed by consumers as an acceptable source of information provision. Hence in the case of Belfast, the city should concentrate on how traditional forms of advertising could be used to attract more visitors from international destinations such as Italy and Spain that have shown an increased potential in recent years (Tourism Ireland, 2016). For example, Sri Lanka Tourism advertising taxis across 3 major cities of United Kingdom; i.e. one of the leading tourist generators to the country (Media Agency Group, 2014).

Increased focus on measuring destination performance

As highlighted by Belfast City Council (2015), one of the major constraints that are limiting Belfast from achieving further economic success from its tourism industry is the lack of current and accurate market data where proper destination

performance indicators have not been researched and/ or published since 2012. Hence, the DMO Belfast should concentrate on re-implementing its visitor satisfaction and other destination performance measurement schemes to get an idea of where the destination stands which will enable the destination to make better strategic decisions. Visit Belfast could adopt a balanced scorecard method to assess the overall performance of the destination (Phillips & Louvieris, 2005).

Increasing packaged offerings

As Belfast City Council (2015) identifies, one of the prevalent weaknesses in the current product offering in Belfast is the lack of packaged experiences. Hence, it is recommended to implement specialised or customisable packages for tourists visiting Belfast as it has a higher possibility of benefiting the tourism industry (Lam, 2018). Offering a standard pass at a fixed discounted price to visit top attractions in Belfast such as the London Pass which is an all-inclusive package allows tourists visiting London to cover multiple attractions using one entrance ticket (Ellen, 2018).

5.2 Social bottom line

Improved foreign relations to face the post Brexit era

Strong international relations with foreign countries that generate tourists to a destination is a critical success factor for the success of destination management (Kabus & Nowakowska-Grunt, 2016). However, Brexit has offered Ireland a brand-new challenge with a significant impact on the tourism industry (Quinn, 2016), including Belfast where the city's 2023 bid for the European Cultural Capital being removed by the European Union is one example of this matter (McKeown, 2017). Considering the above, Belfast must look into improving their foreign relations globally through looking into factors as highlighted in the examples to remain competitive in the tourism industry.

Catering to the information needs of all international travellers online

To cater to the modern tech-savvy consumer, DMO websites should not only have a rich set of information about the destination but instead should also be able to translate the website content into the language of preference of a potential international traveller (Mele & Cantoni, 2016). For instance, The VisitBritain website allows its web visitors to view the site using several different languages

such as French, Spanish, Chinese, Japanese, and Italian (VisitBritain, 2018). Additionally, DMO's should also concentrate on advertising on 'Landmark websites' about individual countries of different international travellers as some potential visitors may never visit a DMO website before making a purchase decision (Ho, et al., 2012).

Creating a CSR strategy that benefits the local community

Destinations worldwide, and their specific DMO's have been forced to adopt coherent CSR strategies due to the increased prominence of sustainable development within the tourism industry in recent years (Estrella, et al., 2016). Additionally, consumers highly perceive that the local community should be a central benefactor from CSR programmes, showcasing the importance of Belfast adopting CSR strategies that ultimately benefit its host population (Öberseder, et al., 2013). Helping marginalised communities in Belfast from the revenue tourism generates to the city – 'Say Goodnight to Hunger' campaign by OMNI Hotels where the project provides a free dinner for a family of four in the US for every booking made with the hotel by a traveller (OMNI Hotels & Resorts, 2018).

5.3 Environmental bottom line

Creating a sustainability-oriented visitor center

Since the visitor center located in the city center is usually the first stop for most tourists visiting Belfast (Visit Belfast-t, 2018), this place needs to showcase itself as a sustainable venture in the perspective of tourists. A sustainable visitor center should aim at being energy-friendly, authentic, and environmentally responsible by adopting practices similar to the ones mentioned in the suggestions below (European Regional Development Fund, 2011): Limiting printed material within the center only for the most important documents such as the visitor guides and provide other brochures to visitors on request over the counter or via an E-brochure (Scottish Power, 2018). Developing unique concepts to manage elements such as waste management – The Whipsnade Zoo using the disposed water bottles to create park benches (Barbour Product Search, 2015).

Aiding partner companies to implement sustainable practices

As (Curtin & Busby, 1999) puts forward, some tourism entities do not adopt sustainability-based initiatives in their business practices as they believe such

attempts would put them at a commercial disadvantage whilst some entities believe that their specific clientele has a lesser interest in sustainable development and therefore adopting such practices is not a necessity. However, Belfast should focus on achieving a holistic environmental development within the city where the entire tourism industry attempts to implement environmentally friendly initiatives within their capacities (Williams, 2004). Educating the tourism businesses in Belfast and showcasing the potential returns they can have by adopting sustainable initiatives by providing factual data such as how 1 in 3 tourists visiting Northern Ireland prefer to stay at an accommodation with green credentials and how 25% of all tourists visiting the region are willing to pay more for eco-friendly products (Tourism Northern Ireland, 2018).

Educating tourists about the importance of Sustainability

For a destination to gain optimal results from their sustainable destination management efforts, the tourists visiting the area need to play an engaging role by adhering to such practices as well (Pulido-Fernández & López-Sánchez, 2016). Hence, it is essential to educate the tourists visiting the region on the sustainable initiatives that the destination at hand is following as they are then more likely to respond to such practices positively put in place when they visit the destination (Stanford, 2006). Highlighting the importance of Sustainability and what the destination is doing in terms of sustainable practices in the Visit-Belfast website, for instance, the official New Zealand tourism website generates '108' different search results ranging from excursions to blog posts when the word 'Sustainability' is searched for in their website (Tourism New Zealand, 2018).

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The Impact of Lecturer - Student Relationship on Self-Esteem of Undergraduates: A Case from Sri Lanka

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Abstract

Self-esteem plays a significant role in satisfaction. This research studied the impact of the lecturer-student relationship on the self-esteem of undergraduates at a university in Sri Lanka. A quantitative research approach was used, and the data from fourth-year undergraduates in the university have been gathered through 121 responses via Google Forms. Rosenberg's Self-esteem scale and lecturer-student relationship scale were used in developing the survey questionnaire. The study found that when the lecturer-student relationship increases, the self-esteem of an undergraduate can also be increased. Further research studying how academics perceive the student-lecturer relationship in order to improve the self-esteem of students is recommended through this research.

Keywords: Lecture-student relationship, Self-esteem, Rosenberg Self-esteem scale

1. Introduction

The history of self-esteem as a concept began with known theorists in Psychology. William and Mead (1890) were among the first to explore the concept. They postulated that self-esteem was equivalent to the success of a person divided by his or her pretensions. Self-esteem is a central construct in clinical, developmental, personality, and social psychology, and its role in psychological functioning has been studied for nearly a century (Greenier et al., n.d.). Self-esteem can also be the attitudes, beliefs, and emotions towards the self. This can be either negative or positive, but this depends on several other factors, such as the influence of parents, guardians, teachers, and peers (Nyadanu et al., 2014) Since there are many factors affecting a person's self-confidence, there is a dearth of information and knowledge about how the relationship between lecturers and students impacts self-esteem and eventually professional performance after graduation.

Nowadays, education theorists argue that lecturer-student relationships, both social and emotional, play a meaningful role in schooling and learning gains (Creasey et al., 2009). Majority believe that parenting and education highly influence the growth of an individual. In the national goals of education, healthy self-esteem in Finland serves as a key component of a human being and social citizen, given that "education must support the pupils' growth into balanced adults with healthy self-esteem." (FNBE, 2016, p. 31). In school, the teaching-studying-learning process also aims at providing a holistic education. Excluding content knowledge, pupils are supported to develop "individuality" and "sociability" (Tirri, 2016, p. 60). Due to this fact, this research was conducted in the local context to practically assess the impact of the lecturer-learner relationship on self-esteem.

Many research have been done on this topic, but not much has been done in Sri Lanka. Hence, this study aims to investigate the impact of the lecturer-student relationship on the student's self-esteem at the university level in Sri Lanka. The NSBM Green University was selected as the case for the investigation. NSBM (National School of Business Management) which is known to be the first-ever green university town in South Asia, sets an example for the whole world by paving the way for environmental sustainability. The university is opened to both national and international student communities, and it has turned a new chapter in Sri Lankan higher education. The state-of-the-art university offers nationally and

internationally recognized UGC-approved degree programs and foreign degree programs under its three faculties; Business, Computing, and Engineering (Insights into the First Green University in South Asia, 2016).

2. Literature review

2.1. Self-esteem

Self-esteem alludes to an individual's general assessment of their value. It incorporates convictions, for example, "I am competent", feelings, for example, victory, despondency, pride, and disgrace. It can likewise apply to a specific measurement, for example, "I trust I am a decent essayist and I feel glad for myself", or "I trust I am a decent individual and I am pleased with that." Self-esteem can be likened to self-worth, self-respect, self-regard, self-love, and self-honesty. In mid-1969, Morris Rosenberg, a social learning theorist, characterized self-esteem as a steady feeling of individual worth or value. Self-idea is an idea of character, and for it to develop, we have to have self-worth, and this self-worth will be gained from grasping difficulties that bring about the appearance of achievement. (Okoko, 2010, p. 10)

William J. (1890, p. 297) pioneered the research on self-esteem. He characterized that it is the proportion of achievements to assumptions. He defines self-esteem by how effective we think we are in the region we excel. Self-esteem can be balanced at any phase throughout everyday life and can be positive or negative. Thus, it is critical to underline positive formative change and endeavor to forestall the negative (Alpay, 2004). C. Cooley (2015) in his "mirror self" hypothesis recommended that we people are inclined to pass judgment on ourselves according to the perception of others. Consequently, the idea of self-esteem incorporates the impact of others. In social brain science, the expression "huge others" alludes to people who assume an urgent job in and greatly affect our life (Andersen and Chen, 2002). Studies have built up that others can decide ones' self-esteem (Horberg and Chen, 2010, pp. 77-91). Among the most compelling component that an individual identifies with, guardians and educators or instructors are essential and significant in building up the psychological image of one's self (Pianta et al., 2003).

Many could be that young ladies in this culture are not permitted to have affiliations with other gender peers during youthfulness. Likewise, these undergraduates were

in single-sex schools, and aside from rare field trips because of occasions, for example, concerts, sports or club-related exercises, in which they blended with the other sex, they were basically with similar friends for nine months per year, for a long time. It has been identified that in the African culture young ladies are generally disheartened from partnering with the other gender peers until they head off to college (Frank, 2009). An exploration discovery appeared to have deficiencies as it significantly focused on two single-sex schools (young ladies) and subsequently didn't give satisfactory clarification on friends of both sexes. In any case, different examinations uncover that teenagers who feel acknowledged in their companion bunches have their adoration, and the need for belongingness as well as self-esteem needs met. Dismissal results from hostility, helpless amiability, open lethargy, and hyperactivity (Ladd, 1999). Elements that influence young people's acknowledgement by peers incorporate knowledge capacity, physical engaging quality, uncommon gifts, financial class, and identity. Young people who have a place within the central financial class will in general be more mainstream than those experiencing childhood in lower financial classes. (Okoko, 2010)

High or positive self-esteem incorporates a readiness to communicate sentiments, initiate contacting others, sitting with others during exercises, working helpfully in gatherings, keeping in touch and talking easily, or little dithering in discourse (Santrock 2001). Low or negative self-esteem incorporates putting down others, prodding, ridiculing, or tattling, inability to communicate perspectives and assessments, expecting a compliant tone, gloating unreasonably about accomplishment abilities, giving reasons for disappointment, and verbally putting down of oneself (Santrock 2001; Okoko, 2010, p. 15)

High or positive self-esteem incorporates an ability to communicate feelings, starting well-disposed contact with other's orders or orders, sitting with others during exercises, working helpfully in gatherings, keeping in touch and talking smoothly, or little faltering in discourse (Santrock 2001). Low or negative self-esteem incorporates putting down others, prodding, ridiculing, or tattling, inability to communicate perspectives and suppositions, expecting a compliant tone, boasting unreasonably about accomplishment abilities, giving reasons for disappointment, and verbally putting down of oneself (Santrock 2001; Okoko, 2010)

Research done by Miller and Moran (2012) drew an agreement that the lecturer is a dominant character in influencing learners' self-esteem and sequentially affecting

their achievements and behavior (Yang, 2018). Longitudinal research done by Reddy et al. (2003, p. 119) indicated that lecturers' support and involvement could result in learners' higher self-esteem.

2.2. Lecturer-student relationship

The principal factors that impact a person's self-esteem incorporate the school condition, lecturers, peers, and the educational plan, just as segment factors, for example, guardians' experience. (Gatabu, 2013). Lecturers do assume an indispensable job in forming a student's self-esteem. As per Wubbels and Levy (1993), students detailed that the best lecturer is solid headed, amicable, understanding, chivalrous, less dubious, less disappointed, and less reprimanding than other lecturers by and large. A longitudinal exploration done by Reddy et al. (2003) demonstrated that lecturers' help and association could bring about students' higher self-esteem. Students who had positive lecturer connections exhibited positive variation to class, regardless of their sexual orientation or evaluation level, over the rudimentary age run (Baker, 2006).

The type of relationship between the lecturer and the student serves as a link between the two, providing a better atmosphere for a classroom environment (Jones et al., 1981). The sort and nature of lecturer-student connections have both been legitimately connected to high self-esteem achievement (Hamilton and Howes, 1992). The more elevated level of affiliation seen among lecturers and students likewise yielded a more significant level of school fulfilment and belongingness (DeSantis et al., 2006) which influenced students' self-esteem, studies, and execution. This was because the acknowledgment of self-worth of students or its absence can yield a recognizable quality in the students which would move them either to accomplish or not to accomplish a goal throughout everyday life (Gatabu, 2013). Pianta (1999) contended that a strong connection among educators and their understudies cultivated all the more genuine and scholastically situated understudies and, whenever built up, kept up, and upheld, formed an understudy's improvement all through the early school years.

The lecturer-student relationship is perceived to be a formalized relational relationship between a position figure and a subordinate who cooperates on almost a regular schedule (Larson et al., 2002; Bartlett, 2005). Positive individual connections among grown-ups and youth are the establishments of effective

projects of training. As indicated by Borba (1989, p. 163), "The significance of relational connections in our lives couldn't be more important. We as a whole need to experience a feeling of connectedness to another person—especially to those whom we consider being significant and huge". At the point when students feel tested, they are more averse to be exhausted and withdrawn (Brophy, 1987). A few investigations investigating what makes a decent lecturer show the significance of according to lecturers and students. One examination characterizes the quality of being mindful as a demonstration of drawing out the best in students through confirmation and support. The attributes of caring work out in a way that helps the students to incorporate characteristics, for example, tolerance, trust, trustworthiness, and boldness. Explicit lecturer traits that show caring incorporate tuning in, tenderness, understanding, information on students as people, warmth and support, and general love for youngsters (Stronge, 2002). Making a culture in the study hall where learning is "cool," and posing inquiries isn't just all right yet expected sets aside some effort to create and is practised by setting clear, high, reliable, yet achievable desires for all students. Great guidance that is thorough, lined up with content norms, and utilizations instructional methodologies to meet the scholarly needs of all students is key in advancing a culture of commitment and accomplishment in the study hall (Weiss and Pasley, 2004).

2.3. Self-esteem and lecturer-student relationship

Showing is an expressive movement, thinking, and activity that intends to arrive at a sort of intelligence and force. Ongoing year's hypotheses addressed such a job and its effect on self-esteem.

In the light of this common comprehension, concentration on various parts of the lecturer's job uncovered noteworthy discoveries. Kususanto et al. (2010, p. 708) found that lecturers' perceived ideas of learners could manifest through behavior and be detected by learners, which in turn affects learners' self-esteem. Reddy et al. (2003, p. 119) showed that lecturers' help and inclusion could result in students' higher self-esteem. Also, he referenced the intensity of the lecturer as a good example, and giving consistent help would add to a positive self-recognition. Likewise, Burns (1982, p. 254) reasoned that the lecturer's self-idea associates with youngsters' self-idea. He clarified lecturers who have a positive perspective on themselves actually and expertly show the penchant for trusting in students' ability

and making a steady homeroom condition, prompting understudies' high self-esteem.

DuBois uncovered in 2002 that condition has been appeared to assume a significant job in deciding directions of young people's self-esteem. Different people have different role models in life that help us identify our real self (Miller & Moran, 2012, p. 33-34). People grow by looking at their role models and at least try and be like the exact person. When we were young, the first outsider who comes and stays in our lives for a long time is a lecturer. So that person would become the role model. Even when we grow old and enter university life, we can create a role model and follow that person's path to success. (Seeker & Deniz, 2016, p. 2). Muhamad et al. (2013, p. 29) noted, lecturers who have positive self-concepts can make a decent example for understudies, and through the sure exhibit, they help students with working up ascertain self-idea.

2.4. Theory to measure self-esteem and lecturer-student relationship

There are numerous speculations identified with self-esteem. These incorporate Maslow's Theory of Needs, Carl Rogers' Theory of Self-Awareness, Rosenberg's Self-Esteem Scale, and Bednar and Peterson's Theory of Self-Esteem among others. Nonetheless, this investigation will utilize the Rosenberg self-esteem scale.

2.4.1. Rosenberg Self-Esteem Scale

It is a one-dimensional scale that contains 10 Likert-type components that add to the simplicity of organization, scoring, and translation. The measure's generally high inside consistency and test-retest dependability without a doubt add to its prominence. Conceivable powerlessness to social allure impacts has not hosed its utilization, most likely as a result of comparable issues with different scales. Albeit initially produced for use with young people, this scale is likewise utilized generally with grown-ups (Blascovich and Tomaka, 1991).

The Rosenberg Self-Esteem Scale, a broadly utilized self-report instrument for assessing singular self-esteem, was examined utilizing the reaction hypothesis. Factor examination recognized a solitary normal factor, despite some past investigations that removed separate self-confidence and self-depreciation factors. A model that obliged the 10 components to approach segregation appeared differently concerning a model permitting the segregations to be assessed openly.

The trial of essentialness demonstrated that the unconstrained model better fits the information; that is, the 10 questions of the Rosenberg Self-Esteem Scale are not similarly segregating and are differentially identified with self-esteem. The example of the working of the questions was analyzed about their substance, and perceptions are offered with suggestions for approving furthermore, creating future character instruments. (Gray-Little, 1997)

Self-esteem does not seem to predict the quality or length of associations. High self-esteem prepares people, even more, to yell out in social events and to denounce the get-together's approach. The activity doesn't stem directly from self-esteem, nonetheless, self-esteem may have lasting influences. Similar to people with low self-esteem, those with high self-esteem show more grounded in-pack prejudice, which may construct inclination moreover, isolation. Neither high nor low self-esteem is a quick purpose behind the violence. Narcissism prompts extended aggression in response to harmed pride. Low self-esteem may add to externalizing behavior and offense, but a couple of assessments have found that there are no effects or that the effect of self-esteem vanishes when different components are controlled. Self-esteem has a strong association with happiness. Notwithstanding the way that the assessment has not settled causation, we are persuaded that high self-esteem prompts more noticeable bliss.

Taking into account the heterogeneity of high self-esteem, unpredictable acclaims may very well effectively advance narcissism, with its less attractive results. Rather, he author prescribe utilizing commendation to help self-esteem as a prize for socially alluring conduct and self-improvement (Baumeister, Campbell, Krueger, & Vohs, 2003).

2.4.2. Lecturer-Student Interaction (LSI) Questionnaire.

The 9-questions survey, including four parts of lecturer-understudy communication: self-sufficiency, passion, scholarly backing, and arrangement of the structure were utilized to gauge the nature of lecturer-understudy communication. Two renditions of the poll, one for each exploratory condition (i.e., great and poor) were utilized. The two polls were indistinguishable in all viewpoints aside from minor contrasts in the guidelines. The term 'great' in the guidelines "consider one lecturer in James Cook College who has trained your last semester, with whom you see you have decent cooperation (for example lecturer-

understudy connection)" was supplanted with 'poor' to recognize the two trial conditions. (Sagayadevan & Jeyaraj, 2012)

Previous studies applied various articulations to demonstrate types of self-esteem, for example, high and low self-esteem, positive and negative self-esteem, just as ideal and delicate self-esteem. Instruction is one of the components that influence the self-esteem of the individual's overall mentality toward his/her capacities corresponding to class learning the worth that individual for their self-esteem and locus of control.

3. Research method

Consumes (1982, p. 254) presumed that a lecturer's self-idea relates to youngsters' self-idea. He clarified lecturers who have a positive perspective on themselves by and by and expertly show the affinity for having faith in students' ability and making a steady study hall condition, prompting understudies' high self-esteem.

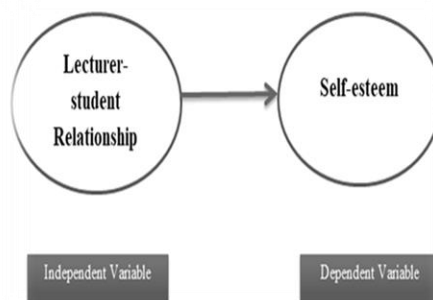


Figure 2: Conceptual Framework

The dependent variable in this research is the self-esteem of a student. The independent variable is the relationship between the lecturer and the student. (Nyadanu et al., 2014). The teaching conduction, including teaching approaches, activities, and classroom management, all affect learners' self-esteem. (Mruk, 2013b, p. 7). Many factors have been found to influence the self-esteem of students which are the environments under which the student is nurtured. These include the school, family, and peers (Saunders et al., 2005), the social environment, and the emerging technologies. Two psychological and sociological measuring tools were used: Rosenberg's Self-Esteem Scale (SES) (Creasey et al., 2009) and Lecturer-

Student Interaction (LSI) Questionnaire (Sagayadevan & Jeyaraj, 2012) to measure the self-esteem of a person and to measure the lecturer-student relationship. Smith and Mackie (2007) defined self-esteem as the positive or negative evaluations of the self, as in how we feel about it. Alpay (2004) indicated that self-esteem develops out of a person's experiences with success and failure.

The purpose of this study is to identify whether there is a correlation between lecturer-student relationship and the self-esteem of an undergraduate. The hypotheses are as below.

H0: The lecture-student relationship does not influence the self-esteem of a student

H1: The lecturer-student relationship does influence the self-esteem of a student

3.1. Approach to this research

Self-esteem can be addressed as a tool to perfect a person's future. It is essential to sharpen this tool when a person gets older. Parents and lecturers are people who always show us the path to create our future. This research measures whether there is an impact of lecturer–student relationship on the self-esteem of an undergraduate. Also, this measures the current level of self-esteem of a student.

The Faculty of Business in the NSBM Green University consists of 5280 students. The students of the faculty can be mainly broken down into four main groups. They are 1st, 2nd, 3rd, and 4th-years with a student count of 2214, 1518, 1069, 479 respectively. This study has been conducted selecting the 4th year cluster.

3.2. Sampling

The population of this study is all undergraduates which is 5280 students in the Faculty of Business which is the largest faculty in the university. The author has used the "Cluster Sampling Method" to conduct this research. Different clusters are recognized for the cluster sampling method. The author has recognized the clusters as the levels of the students (1st, 2nd, 3rd, and 4th-year students). The author sees this as the most feasible option for the study. The selected cluster for this study is the students from year four. The seniors of the university, the students who have higher opportunities to interact with the lecturers than the other students,

and who have been engaged in university activities for a longer period are a few reasons to select the final year students for this study. However, the author was able to target 121 students using the convenient sampling method from 4th-year students at the Faculty of Business and had conducted a quantitative research.

4. Results and discussion

4.1 Descriptive statistics analysis

4.1.1. Analysis of the Name of Degree

The highest number of responses are from BSc. in Business Management (Logistics Management) degree program which is, 81 students with an overall percentage of 67%. 0.8% of students have responded from BSc. in Business Management (Project Management) Degree program and BSc. (Hons) Human Resource Management degree program gives the lowest percentage of 0.8% and there is only one response from each degree program. The second highest responses have been provided by the BSc. in Business Management (Industrial Management) degree program, which is 13%, and there is a gap of 54% between the two degrees.

4.1.2. Analysis of the Gender

According to Figure 2, 50% of the responses are from females while the other half is from males. Since the total amount is 121 responses, 61 responses are from females, and 60 responses are from males. A significant fact is that it has overall 50/50 data when it comes to Gender.

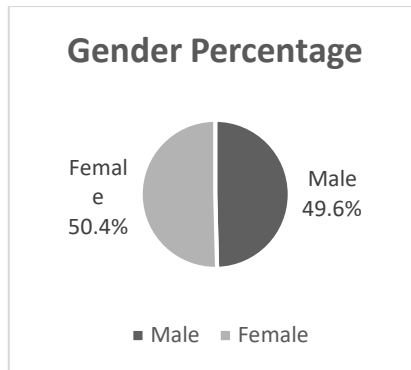


Figure 2 : Gender percentage

4.2. Manipulation check questions

Analysts are worried about whether manipulations have the planned impacts. Numerous diaries and commentators see manipulation checks well, and they are broadly revealed in lofty diaries. Nonetheless, the prototypical manipulation check is a verbal (as opposed to social) measure that consistently shows up at a similar point in the technique (instead of its request being changed to survey request impacts). While we conceptualize manipulation checks as measures, they can likewise go about as mediations that start new cycles that would some way or another not happen.

The author included two manipulation questions to gather data relevant to this research. The students have answered these questions after thinking of a lecturer they like or they dislike. The questions are "How do you usually feel when you attend this lecturer's lessons?" and "What are some of the characteristics that you would associate with this lecturer?". Under the answers to the first question, 53.7% have responded as "interesting". 37.2% have found the lessons interesting. Only 5% have responded as upsetting and demanding.

The answer to the second question comprises of 71% who have responded as understanding and 34% who have responded as approachable. 5% have responded as irritable and nervous.

The questions related to the lecturer-student relationship show 0.76 and questions related to self-esteem show 0.713 as the Cronbach's Alpha. Therefore, it concludes that the variables are reliable.

4.3 Correlation analysis

Using Pearson's product-moment correlation with a 2-tailed test of significance, the correlation analysis was made to investigate any relationship between self-esteem (dependent variable) and lecturer-student relationship (independent variable).

Table 2: Analysis of correlation between lecturer-student relationship and self-esteem

Dependent Variable	Independent Variable	Pearson Correlation	Significance of the relationship
Self-esteem	Lecturer-student relationship	0.423	0.00

There is a positive relationship between the lecturer-student relationship and self-esteem. Also, the relationship is 42% that means when the lecturer-student relationship increases self-esteem can also increase. Since the significance value is less than 0.05, this relationship is significant.

4.4 Regression analysis

Regression examination can be partitioned into two, to be specific Simple Regression and Multiple Regression. If there are one ward variable and one autonomous variable, basic regression examination can be utilized. However if there are multiple factors, numerous regression investigation methods ought to be utilized. Since there are just a single autonomous variable and one ward variable a basic regression examination was utilized.

Table 3: Summary of Regression

R-Square	0.179
Adjusted R-Square	0.172
Model Significance	0.000

"R Square is the percentage of the response variable variation that is explained by a linear model" (Reuf, 2017). The R squared value represents the portion of the variance in the dependent variable (self-esteem) which can be explained by the independent variable (lecturer-student relationship). The R-square value also explains that the independent variable together explains the dependent variable by 17.9%.

The adjusted R-square explains "whether additional input variables contribute to the model". Since the adjusted R-square is 0.641, it says that when a new variable is added, productive power will decrease.

In the ANOVA Table, the model significance is 0.000 which is less than 0.05; the model is significant.

4.5 Hypothesis testing

H1: The lecturer-student relationship does influence the self-esteem of a student learning

According to the significant results for self-esteem, the value is less than 0.05(0.000 <0.05). Also, the Beta Coefficient is 0.45, which explains that the lecturer-student relationship does influence the self-esteem of a student learning at this university, and it is 45%.

5 Conclusion

This research is initiated to identify the impact of the lecturer-student relationship on the self-esteem of undergraduates at the NSBM Green University, Faculty of Business. To answer the main research question, the interest was drawn in identifying the current level of lecturer-student relationship and the self-esteem level. The research took a quantitative aspect to find relevant data with regards to the study. Out of four clusters (1st, 2nd, 3rd, and 4th years), 121 students from one cluster (4th Years) have been taken as the sample for this study. All gathered data have been analyzed using SPSS software to obtain sufficient results.

The main aim of the study is to identify the impact of the independent variable (lecturer-student relationship) on the dependent variable (self-esteem of undergraduates). The regression analysis technique was used for this purpose and adequate measures were taken to test and fulfil the pre-requisite of the data set.

Furthermore, support testing was conducted to measure model fitness using R squared values, the ANOVA table, and the Pearson correlation to measure the interdependency of variables and their respective test outputs, and subsequent interpretation was done in the findings. Based on the above-mentioned support tests, ensuring the pre-conditions for classical assumptions, the study arrived at the following eventual finding.

- There is an impact on the lecturer-student relationship on the self-esteem of undergraduates.

The questions related to the lecturer-student relationship show 0.76 and questions related to self-esteem show 0.713 as the Cronbach's Alpha. This concludes that all the questions of the questionnaire are reliable and accurate. Also, it explains that the lecturer-student relationship does exist in the NSBM Green University, Faculty of Business.

According to Correlation analysis in Table no. 2, the Pearson correlation is 0.423, which explains that there is a relationship between the independent variable (lecturer-student relationship) and the dependent variable (self-esteem of undergraduates) and it is 42.3%. Since Pearson correlation is a positive value, there is a positive relationship which means if the independent variable increases, the dependent variable also increases.

A great lecturer-student relationship is fundamental to students' all-encompassing and long-term improvement. Strategy creators, college specialists, and students must make an honest effort to build a great student-lecturer relationship that improves training. The accompanying suggestions are thus made dependent on the significant discoveries of this investigation:

Lecturers should offer other helpful associations and tutoring to students other than giving only scholarly directions. Improve lecturing methods by relating them to Psychology. In many foreign countries, they conduct seminars for lecturers, about the thinking patterns of students. This will increase the understanding among lecturers and students. Further, examination ought to be done where lecturers additionally survey how they see student-lecturer relationship inside the division and fundamental discoveries joined with that of the students' recognition. This is a sector that trains experts to deal with the future world; endeavours ought to be made by the lecturers and the specialists to impart the feeling of a great relationship

in the students for quality conveyance. Further examination ought to be completed to see whether self-esteem created during schools impacts the proficient yields of workers. It is additionally recommended that further investigations be completed to create a blended impacts model of the scholastic exhibition of students thinking about self-esteem, lecturer relationship, socio-social and financial variables, and other key determinants.

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Factors Affecting Fintech Acceptance in Sri Lanka

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Abstract

The purpose of this research is to identify the factors that affect consumers' Fintech acceptance in Sri Lanka. Based on the theory of Scenarization of Finance and some of the models developed in the information system field such as the Technology Acceptance Model, Unified Theory of Acceptance and Use of Technology, and Risky Technology Adoption models digital accessibility, digital capability, convenience, social influence, personal innovativeness, security concerns, and price value variables were selected as the significant variables for the proposed research framework. Structural Equation Model was used as a statistical test with SmartPLS software. The data source in this research is 440 primary data collected from Fintech banking services consumers. The results of the statistical analysis demonstrated that the level of scenarization of finance, measured in terms of digital accessibility, digital capability, and ease of use is a key concern when determining the adoption intention of Fintech services. Further, both social influence and price value have a significant negative impact while personal innovativeness creates a significant positive impact on consumers' adoption intention. Also, the study revealed that security concerns are having a negative impact, but the impact is not significant in the Sri Lankan context.

Keywords: Fintech, adoption intention, TAM, UTAUT, RAT, Scenarization of finance

1. Introduction

Fintech is the ellipsis for Financial Technology, which implies the application of innovative technologies in financial services (Vives, 2017). During the early ages of Fintech evolution (Fintech 1.0 and Fintech 2.0) financial institutions were in the position to adopt technology-driven applications. However, after the global financial crisis in 2008, Fintech 3.0 era fostered significant threats to incumbent players. This is because of the tightening regulatory requirements on banks through imposing increased capital requirements and reshaping the structure of banks as a proactive measure against the risk of repeat crisis in the future. As a result, banks had to pay more attention to these compliances. During this time innovation became a distinct priority. Accordingly, numerous game-changing technologies, such as WhatsApp, Air BnB, Facebook, Amazon, Google Pay, Apple Pay, Alipay, etc. became part of our day-to-day life. These innovative business models are more focused on providing customers with a better user experience (Hu, Ding, Li, Chen & Yung, 2019). As a result, customers were much adapted to the convenient services offered by these innovators, and they also expected the same level of services from the banks too. Berberis et al., (2015), argued that due to the collapse of trust and the regulatory reforms, banks were surprised by the unintended consequences of the rise of new technology-driven players as banks had limited capacity to compete with them.

Since 2015, Fintech services have seen an increase in awareness as well as adoption² globally (EY Fintech Adoption Index, 2019). In 2015, the year in which the first EY Fintech adoption index was published, the global Fintech adoption rate stood at 16%. Then the rate increased to 33% in 2017 and 64% in 2019. Further, 96% of global consumers are aware of at least one alternative Fintech service available and, 3 out of 4 global consumers use a money transfer and payments Fintech service (EY Fintech Adoption Index, 2019). Thus, although there are numerous Fintech applications available in the market, we can see a selective adoption of these services. This argument can be further supported through the data presented in Table 1 below.

² **Fintech Adoption** is used here to refer to the widespread use of a new application, product or process (Frost,2020).

Table I: Fintech Categories Ranked by Adoption Rate

Fintech Category	Adoption Rate		
	2015	2017	2019
Money transfer and payments	18%	50%	75%
Savings and investments	17%	24%	48%
Budgeting & financial planning	8%	20%	34%
Insurance	8%	10%	29%
Borrowing	6%	10%	27%

Source: EY Fintech Adoption Index, 2019

Accordingly, money transfer and payment services are driving the increase in the global Fintech adoption with 75% of consumers. When considering the other products, the adoption rate is at a low percentage, even below 50%, which indicates that the potential barriers to adopting Fintech services exist. Further, a significant gap between consumer awareness of Fintech products and their intention to adopt was investigated by a survey carried out by CGI Group Incorporation in 2016. Accordingly, they found that only an average of 72% of consumers are aware of Fintech with an average of 33% of consumers reporting current and planned behavioral intention to adopt Fintech services. This, big drop between awareness to expected usage validates that both incumbent players and new startups of the industry must pay more attention to convincing their products even for the interested customers to move from awareness to adoption.

Several scholars have investigated the uneven Fintech adoption patterns across different countries, for example, Frost (2020); Buckley & Webster (2016). This is because in developing countries a significant proportion of the population is still unconnected mainly due to the lack of digital infrastructures and digital literacy skills. Thus, they are reluctant to adopt digitally-driven financial solutions. Further, more potential can be seen in developing countries for Fintech due to the unmet demand for financial services. This is because the majority in developing countries are excluded from the formal financial system. Sri Lanka as a developing country is still in its infancy in adopting Fintech into its financial services sector. However,

huge potentials exist for Fintech startups to leverage their business in Sri Lanka as the majority of the rural population is excluded from the formal financial system. The establishment of a business presence in the country is challenging for the startups as there is a lack of evidence-based assessments available for them regarding the important aspects that they shall consider when promoting their product to the majority who lacks digital literacy and digital infrastructure. Extant literature mainly focuses only on online banking, mobile, banking, etc. For example: Ashfa, Fernando and Yapa 2020; Jayasiri, Gunawaradana, and Dharmadasa, 2016. Thus, this study aims at uncovering the important factors which drive the consumers' Fintech adoption intention in Sri Lanka.

2. Literature review

The survey results of eminent consultancy firms have revealed that the rate of 'Fintech Adoption' varies across the countries significantly (For example, EY Fintech Adoption Index (2019), PWC Global Fintech Survey (2017)). Adoption is referring to reflecting the extensive use of new applications products or processes. King and Nesbitt (2020), also confirmed that Fintech is being adopted across markets worldwide unevenly. In their analysis they highlighted that in developing countries adoption is driven by unmet demand for financial services and in other economies, adoption can be related to high costs of traditional finance services, supportive regulatory environment, and other macroeconomic factors.

Previous researchers have applied different models developed in the information system field to explain the factors that influence the adoption of technology both at individual and organizational levels (Abbasi et al, 2015; Abu Tair &. Abu-Shanab, 2014; Venkatesh & Zhang, 2010). These models include; Theory of Reasoned Actions (TRA) (Fishbein & Ajzen, 1975), Social Cognitive Theory (SCT) (Bandura, 1986), Technology Acceptance Model (TAM) (Davis, 1989; Davis, Bagozzi & Warshaw, 1989), Theory of Planned Behavior (TPB) (Ajzen, 1991), The model combining TAM and the Theory of Planned Behavior (Taylor & Todd, 1995), Innovation Diffusion Theory (IDT) (Rogers, 1995), Motivational Model (MM) (Davis, Bagozzi & Warshaw, 1992), Extended TAM (Venkatesh & Davis, 2000), Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh *et al.*, 2003). However, selecting the best model among these multiple models which can fulfill the specific requirements of a study is considered a

challenging choice to make (Venkatesh *et al.*, 2003). Cao (2016), applied only four models including TAM, MM, UTAUT, and Risky Technology Adoption Model (RTA), in identifying the factors that affect Fintech adoption intention in Finland.

Chen (2016), explains that the massive growth of Fintech adoption in Asia has resulted due to the phenomenon called 'Scenarization of Finance' which elaborates on the concept of integration between finance and real-life needs. Accordingly, he highlighted that the purpose of technology is not to make finance better but to make finance serve real-life better. China being one of the most progressive countries in the world in terms of Fintech growth has achieved this success merely through integration between technology and real-life needs. Chen (2016), has initiated the concept of scenarization of finance through deeper analysis of the Fintech success story of China. Moshirian et al. (2019), also stressed that extensive adoption of Fintech can be seen in Asia merely due to the fact of better integration between Fintech and real-life scenarios. For example, the success story of M-Pesa in Kenya can be used as the benchmark in identifying the potential for Fintech firms to raise living standards in developing nations (Yermack, 2018). The critical success factor of M-Pesa is that it operates with a law tech Fintech services which suitably meet the needs of customers who have a basic mobile phone that can send text messages. Thus, the story of M-Pesa further confirms that Fintech service providers in developing nations shall more focus on catering their services to the basic requirements of the potential consumers. Buckley & Webster (2016), also concluded that M-Pesa leverages existing infrastructure to deliver the simplicity and accessibility required of Fintech offerings in developing countries. McCaffrey & Schiff (2017), highlighted that success of Fintech firms in developing countries is determined through how well they can meet the needs of the broad number of poor and working-class citizens, whose day-to-day finances are often characterized by volatility, complexity, and improvisation. As a result, Fintech firms shall focus on establishing a reliable electrical grid that permits a broad consumer base to connect via mobile phones or the internet and the products shall be designed with simplicity and low cost.

Generally, the concept of scenarization of Finance captures the ability of Fintech services to generate a satisfied consumer base. Consumer satisfaction can be achieved by making available Fintech services for everyone. Simply, it is the 'accessibility' or reach to the financial services. Even though consumers are having

access to the finance they might not be satisfied if they are incapable of using the services. This is mainly due to the lack of digital literacy among the people. Thus, to adapt to the innovative technology-driven applications in the financial services industry people should be better equipped with the required 'digital capabilities'. Moreover, though consumers have access to finance, and they are capable to use them they are never satisfied if those products do not make their life easier. Thus, yet another important aspect is 'convenience'.

H₁: Digital Accessibility has a significant positive impact on the level of Scenarization of finance

H₂: Individuals' digital capability has a positive impact on the level of Scenarization of finance

H₃: Usefulness of Fintech services has a positive impact on the level of Scenarization of finance

H₄: The level of Scenarization of finance has a positive impact on an individual's Fintech adoption Intention.

Social Influence (SI): Social influence is considered an important dimension that affects an individual's adoption intention. The behavior of a role model or an important person in society influences the individual to adopt the new system (Venkatesh et al., 2003). Due to the uncertainty and risk associated with Fintech products, consumers naturally tend to look for other peoples' views and intentions on similar products. There are various studies which investigated a significant relation established between social influence and its effect on behavioral intention to use (Rahi et al., 2019; Alalwan et al., 2017; Rodrigues et al., 2016; Slade et al., 2015; Tan et al., 2014; Venkatesh et al., 2011). Kim et al. (2018) find social influence positively affects the intention to use a payment authentication system based on biometrics; Moon and Hwang (2018), show that social influence positively affects the intention to use crowdfunding. Further, the significant impact of social influence on digital banking adoption is confirmed by several scholars in Sri Lanka (Chandrasiri & Karandakatiya, 2018; Jayasiri, Gunawaradana, and Dharmadasa, 2016). When the potential consumers become more careful in adopting Fintech products, the same behavior may be emulated by the individuals to show the social influence on them.

H₅: Social influence has a positive impact on users' adoption intention.

Security Concerns (SC): SC was incorporated into the model by referring to the Risky Technology Adoption (RTA) model. When consumers suffer from expectation loss due to security concerns, Fintech product adoption may be delayed or rejected completely. Several previous scholars have asserted that risk-taking behavior differs greatly across individuals, across countries, across domains, and over time (For example; Dohmen et al., 2011; Falk et al., 2018; Fisher and Yao, 2017; Mata et al., 2016). Some individuals, especially from developing countries are scared of being targets for fraudulent attacks and as a result, they are still using cash excessively for their payments (Jones, 2018). Thus, both incumbent and new startups shall pay more attention to building consumer confidence and resulting market confidence as it is critical to establish technology-driven financial service products.

H₆: Security concern has a negative impact on users' adoption intention

Price Value: According to Venkatesh et al. (2012), and Dodds et al (1991), the price value means the consumers' cognitive trade-off between the perceived benefits and the monetary cost of a given Fintech product. Several other studies conducted in the Marketing field have revealed how the perceived price value improves the consumers' intention to buy products (see, for example, Grewal, Monroe, and Krishnan, 1998). Though some studies have found out less sensitivity of affluent consumers on the price of the Fintech products (for example, Wu & Wang, 2005), a substantial amount of many other studies conducted in diverse fields confirm the positive relationship between the cost-benefit of a product and behavioral intention to adopt (for example, Pura, 2005; Wu & Wang, 2005). When this is applied to the digital financial industry, it is evident that consumers are more concerned about transaction costs such as stamp duty, the interest cost, late payment charges, and all other types of service charges. Consumers seem very satisfied with Fintech products that deliver them the most advantageous combination of cost and benefit. Accordingly, the following hypothesis is proposed.

H₇: Price value will have a positive influence on users' adoption intention

Personal Innovativeness (PI)

PI is the degree to which an individual is relatively early in adopting a new idea than other members of a social system (Rogers and Singhal, 2003). Connor, Heavin and Donoghue (2016), define PI as the extent to which a person's predisposition

or attitude reflects his or her tendency to experiment with new technologies independently of the communicated experience of others. Zarpou, Saprikis, and Vlachopoulou (2010), conducted a survey in Greece with the participation of 445 respondents and investigated that PI was verified to have the strongest effect on mobile service adoption intention. As part of their research, Jhone et al. (2006), found that PI was positively related to technology infusion. That is because users who infuse any technological solution are required to use all appropriate applications for both intended and unintended purposes. Thus, lack of innovativeness among individuals may restrict them from experimenting with novel technology and thereby gaining additional insights. Further, Eastlick, Lotz and Warrington (2006), has been empirically tested a link between PI and electronic shopping as more innovative people are more likely to purchase online than those who are less innovative. Therefore, the next hypothesis can be specified as,

H₈: Personal Innovativeness (PI) has a positive influence on users' adoption intention.

3. Methodology

This research applies a quantitative approach to investigate the factors affecting Fintech acceptance in Sri Lanka. The data collection is based on the structured questionnaires distributed through Google Forms. A Likert 5-point scale was applied to all these questions with “1=Strongly Disagree”, “2=Disagree”, “3=Neither Agree nor Disagree”, “4=Agree”, “5=Strongly Agree”.

Table 2: Operationalization of Variables

No.	Statement	References
	Digital Accessibility	
DA1	I am having a strong internet connection at home or the place where I stay	Powhatan Broadband Survey, 2016
DA2	I am having required devices (personal computer, laptop, tab, Smart mobile device) to access digital banking products	Powhatan Broadband Survey, 2016

DA3	I am often facing connectivity issues when accessing the internet	Powhatan Broadband Survey, 2016
DA4	I am often accessing my bank account via my personal computer, laptop, tab, smart mobile device	Powhatan Broadband Survey, 2016
PEU	Convenience: Perceived Ease of Use/Perceived Convenience	
PEU1	I often become confused when I use the digital banking services.	Davis (1989)
PEU2	I find it easy to apply the digital banking services to do what I want to do.	Davis (1989)
PEU3	I make errors frequently when applying digital banking services.	Davis (1989)
PEU4	The Digital Banking Services are rigid and inflexible to interact with.	Davis (1989)
PEU5	Overall, I find the Digital Banking Services easy for me to use.	Davis (1989)
DC	Digital Capability	
DC1	I am having sufficient web searching skills to use digital banking products	Son (2015)
DC2	I am having sufficient level of computer literacy (Ability to work with to work with computers) use digital banking products	Son (2015)
DC3	I am having sufficient level of digital literacy (Ability to work with digital technologies) to use digital banking products	Son (2015)
SI	Social Influence	
SI1	People who influence my behaviors think that I should use Digital Banking Services.	Venkatesh et al. (2012)
SI2	I am usually discussing the feeling of using Digital Banking Services with family and friends.	Wu, Tao & Yang (2008)

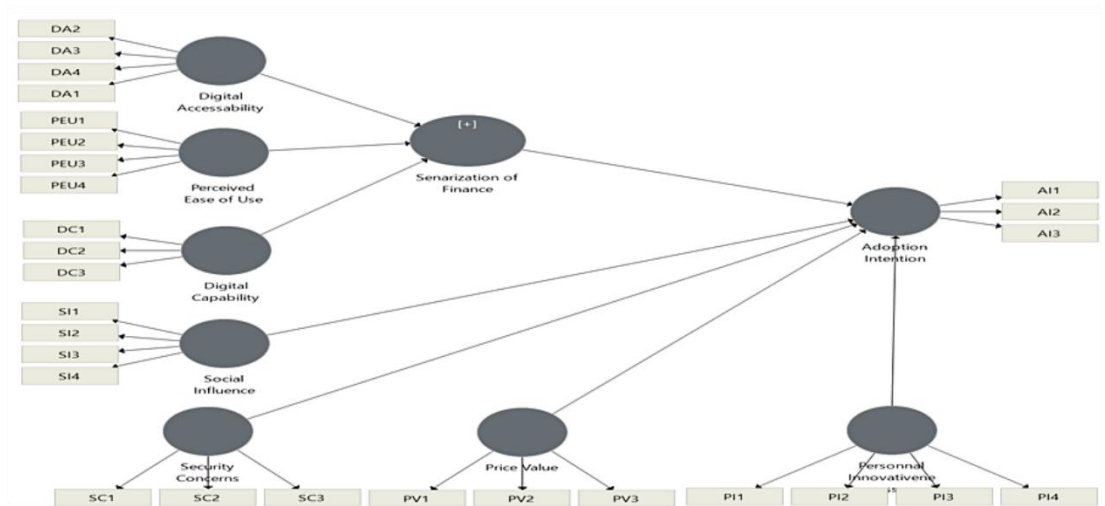
SI3	Most of my peers are using it, I should also use it.	Thompson et al. (1991)
SI4	People whose opinion that I value prefer that I use Digital Banking Services	Venkatesh et al. (2012)
SC	Security Concerns	
SC1	I feel secure to use Digital Banking Services	Gupta et al. (2010)
SC2	Security is the primary worry when considering to apply digital banking services.	Gupta et al. (2010)
SC3	Overall, I think digital banking services are safe for using	Gupta et al. (2010)
PV	Price Value	
PV1	I think service charges on digital banking services are reasonable.	Venkatesh et al. (2012)
PV2	I think digital banking services offer good value for money.	Venkatesh et al. (2012)
PV3	At the current price digital banking Services offer a good value.	Venkaresh et al. (2012)
PI	Personal Innovativeness	
PI1	I like to experiment with new information technologies	Agarwal et al. (1998)
PI2	Among my peers, I am usually the first to explore new information technologies.	Agarwal et al. (1998)
PI3	If I heard about a new information technology, I would look for ways to experiment with it.	Agarwal et al. (1998)
PI4	It will be easy for me to become skillful at using digital banking services.	Agarwal et al. (1998)
AI	Adoption Intention	
AI1	I plan to use Digital Banking Services in the future.	Rosen (1996)

AI2	I intend to use Digital Banking Services in the future.	Rosen (1996)
AI3	I predict I would use digital banking services in the future.	Rosen (1996)

Source: Author Compiled

In the present study, the sample includes Fintech banking consumers who use the wider range of Fintech services offered by banks including internet banking, mobile banking, digital wallets, digital financial planning, digital rewards and loyalty program, non-internet-based phone banking, and digital relationship manager. A total of 500 questionnaires was distributed among digitally active customers of selected banks out of which 440 complete responses were received. The sample size is a key issue when conducting Structural Equation Modelling (SEM). Both Kenny and McCoach, (2003) and Hair (2007) proposed that 15 responses per parameter are an appropriate ratio for sample size. Applying the same approach this study reached 440 respondents to measure 29 parameters.

Structural Equation Modelling (SEM) was applied for hypothesis testing. SEM is considered a standardized method in research when analyzing the cause-effect relations between latent constructs (Hair, Ringle & Sarstedt, 2011). This research uses the PLS-SEM to validate the measurement and hypothesis testing. PLS-SEM uses a regression approach that minimized residual variance from internal construct and is proven as more powerful with fewer issues when compared to CB-SEM, PLS-SEM (Hair et al.,2014). PLS-SEM works with large and small samples and is able to include and combine formative and reflective constructs (Hair et al.,2014). The validity tests were conducted to establish the validity of the questionnaire items. This research uses three tests as the criteria to confirm the convergent and discriminant validity of the measurement items: 1) All factor loading must exceed the 0.5 cutoff point. 2) All average variance extracted (AVEs) must be higher than 0.5 3) Square root of AVEs and other inter-construct correlations is compared to assess the discriminant validity. The square root of the Average Variance Extracted (AVEs) of each construct has to be higher than the correlations between it and any other constructs. The reliability of the measurements was evaluated using the composite reliability scores. The reliability score is adequate if exceeds recommended threshold point of 0.70 (Nunnally,1978).



Source: Smart PLS output

Figure 1: Path Diagram

4. Results and discussion

4.1. Demographic Profiles of the Respondents

The demographic and background data collected included age, gender, educational level, marital status, occupation, monthly income, and the type of digital banking services used. The main purpose of descriptive analysis is to understand the profile of the respondents. Table III below shows the summary of the descriptive analysis.

Table 3: Profile of the Respondents

Age Group	No. of Respondents	Percentage of Respondents
18-24	142	33%
25-34	189	44%
35-44	56	13%
45-54	12	3%

55-64	17	4%
Above 65	12	3%
Gender		
Male	189	44%
Female	239	56%
Education Level		
GCE AL/OL	13	3%
Diploma/Higher Diploma	142	33%
Undergraduate	145	34%
Graduate	128	30%
Occupation		
Executive, Trainees, Assistants	265	62%
Senior Management Positions	163	38%
Income Level		
Less than Rs.50,000	164	38%
Rs.50,001 – Rs.100,000	78	18%
Rs.100,0001 – Rs.150,000	68	16%
Rs.150,001 – Rs.200,000	48	11%
Rs.200,001 – Rs.250,000	27	6%
Above Rs.250,000	43	10%

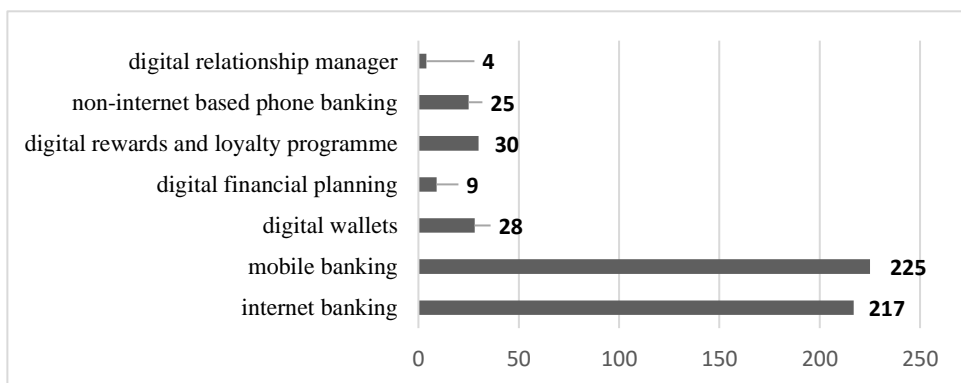
Source: Survey Results

Survey results highlighted that young people tend to adopt tech-savvy financial services than the older generation as the majority (77%) were in the 18–35-year age group followed by the 13% in the 35–44-year age group, and 10% above 45-year age group. In this study, there are a total of 239 (56%) female respondents and 189 (44%) male respondents. The percentage shows that the female respondents are much higher than the male respondents. The majority (64%) of respondents are well educated as they are following a degree or having a degree. In addition, 33% of the total respondents are having a Diploma or Higher Diploma qualification and

a lesser percentage (3%) of the respondents are having basic education like passing GCE A/L or O/L. The majority of respondents (more than 60%) are employed in trainee and executive levels and the rest of the respondents are occupied in senior management positions. Fixed income earners usually tend to apply digital banking services as all the respondents are fixed income earners. In the monthly income segment, most of the respondents have an income of less than Rs. 50,000 which was 164 respondents (38%). Followed by the income group of Rs. 50,001 – Rs. 100,000, with 78 respondents (18%). Ranked third is Rs.100,001- Rs. 150,000, with 68 respondents (16%) having a high income; 48 respondents (11%) have a higher income of between Rs.150,001- Rs.200,000 and 27 respondents (6%) are from the earnings group between Rs.200,001 and Rs.250,000. Further, 43 respondents (10%) are representing the highest income group of above Rs. 250,000.

4.2. Most frequently used digital banking applications

The survey results indicate that all the respondents are using either internet banking or mobile banking and only a few respondents are using innovative applications in digital banking such as digital wallets, digital financial planning, digital relationship manager, etc. As shown in the following Figure 4.1 only a few respondents are using the new applications offered by the banks under their journey of digitalizing the services. As a developing country, Sri Lanka is still at its early stage of Fintech adoption, and as a result, currently, consumers prefer mobile banking and internet banking rather than the novel applications of Fintech in banking services.



Source: Survey Results

Figure 2: No. of Users of Different Digital Banking Services

Under the measurement model analysis, the reliability and validity of the constructs were assessed in terms of their content validity, reliability, convergent validity, and discriminant validity (Gefen & Straub, 2005; Hair et al., 2013; Hulland, 1999). First, the reliability of the constructs was assessed. The Reliability Analysis calculates several commonly used measures of scale reliability and provides information about the relationships between individual items in the scale. Cronbach's Alpha (CA) and Composite Reliability (CR) are the most used reliability measure for questionnaires with multiple scales (Fornell & Larcker, 1981; Hair et al. 2006; Nunnally & Bernstein, 1994).

4.3. Test for reliability and validity of constructs

Table 4: Internal Reliability and Convergent Validity of the Measurements

	Cronbach's Alpha (CA)	rho_A	Composite Reliability (CR)	Average Variance Extracted (AVE)
AI	0.904	0.904	0.940	0.838
DA	0.697	0.502	0.798	0.665
DC	0.665	0.729	0.810	0.591
PEU	0.863	0.880	0.910	0.722
PI	0.842	0.902	0.896	0.691
PV	0.772	0.766	0.803	0.583
SC	0.780	0.828	0.868	0.688
SF	0.763	0.864	0.721	0.506
SI	0.762	0.762	0.894	0.808

4.3.1. Composite Reliability (CR)

As per Netemeyer (2003), CR is an alternative measure for CA to measure the construct reliability. In general, social science research evaluates that the variables are reliable when either the CA or CR value exceeds 0.7 (Fornell & Larcker, 1981; Nunnally & Bernstein, 1994). Most scholars preferred CR as a measure of true reliability as CA sometimes over or underestimates the scale reliability (Eliakunda, 2019). As a measure of reliability, CR varies from 0 to 1, and the value of '1' indicates the perfect estimated reliability (Hair et al., 2017). According to Chin (1998), CR should be equal to or greater than 0.6 while according to Henseler et al., (2012), CR should be equal to or greater than 0.7 and equal to or greater than 0.8 is considered good. As shown in Table IV above CR values for each latent variable range from 0.798 to 0.940. Therefore, the CR of the constructs of this study is established as all the values are above 0.7.

4.3.2. Convergent Validity (CV)

CV assesses the validity of the questionnaire to measure what it is intended to measure for the latent variable (Hair, et al., 2017). Before running PLS Algorithm, both convergent and discriminant validity should be established (Saunders et al., 2015). CV is assessed based on the Average Variance Extracted (AVE). When the AVE is equal to or higher than 0.5, the CV is proven (Chin and Todd, 1995; Fornell & Larcker, 1981; Hair et al., 2006). AVE value equal to or greater than 0.50 explains that more than half (1/2) of the variance of the indicators is defined by the construct on average. On the other hand, an AVE less than 0.5 demonstrates that the error term of the indicator contains more variance than what is explained by the construct. As per the data presented in the above Table IV, AVE at reflective scales for all the latent variables are above 0.5. Thus, the CV for each construct of this study is established.

4.3.3. Discriminant Validity (DV)

DV assesses the extent to which a construct differs from other constructs, by assessing the correlation between constructs (Saunders et al., 2015). Also, Andreev et al., (2009) stated that DV assesses whether indicators of latent variables are not related to each other as per the theoretical expectation. Kline (2011), claimed that to establish the DV among constructs their inter-correlation should be at a lesser

value. There are a few ways that can be applied in assessing the DV including cross-loading of indicators, Fornell and Larcker criterion, and Heterotrait-monotrait (HTMT) ratio of correlation. Among these methods, Fornell and Larcker criterion is the commonly used method while the heterotrait-monotrait (HTMT) ratio of correlations method is a new method that emerged for this purpose. Thus, both Fornell and Larcker criterion and HTMT method are employed in this study to ensure the DV between constructs.

Table 5: Discriminant Validity - Fornell-Larcker Criterion

	AVE	AI	DA	DC	PEU	PI	PV	SC	SF	SI
AI	0.838	0.916								
DA	0.665	0.408	0.815							
DC	0.591	0.215	0.102	0.769						
PEU	0.722	0.489	0.630	0.184	0.849					
PI	0.691	0.790	0.426	0.231	0.519	0.831				
PV	0.583	0.652	0.432	0.543	0.431	0.672	0.754			
SC	0.688	0.206	0.230	0.133	0.182	0.225	0.165	0.829		
SF	0.506	0.521	0.589	0.341	0.555	0.552	0.432	0.228	0.637	
SI	0.808	0.324	0.268	0.228	0.303	0.358	0.113	0.296	0.346	0.899

Source: Smart PLS output

The DV was assessed using Fornell and Larcker (1981) by comparing the square root of each AVE in the diagonal with the correlation coefficients (off-diagonal) for each construct in the relevant rows and columns (Hair et al., 2014). Therefore, the square root of each construct's AVE should have a greater value than the correlations with other latent constructs. As per the statistics presented in above table V the square root of the AVE of each latent variable (in bold) is higher than other correlations among the constructs. Therefore, the DV is established as per the Fornell-Larcker criterion.

Table 6: Discriminant Validity - Heterotrait- Monotrait ratio (HTMT)

	AI	DA	DC	PEU	PI	SC	SF	SI
AI								
DA	0.611							
DC	0.282	0.158						
PEU	0.556	0.876	0.234					
PI	0.102	0.674	0.333	0.636				
PV	0.436	0.234	0.632	0.253				
SC	0.234	0.351	0.172	0.223	0.283			
SF	0.614	0.169	0.776	0.071	0.701	0.294		
SI	0.390	0.437	0.324	0.383	0.481	0.388	0.478	0.321

Source: Smart PLS output

When applying HTMT to establish the DV, calculated HTMT values are to be compared with a pre-specified threshold. Accordingly, a lack of DV can be seen when the HTMT values are higher than the said threshold. Kline (2011), suggested a threshold of 0.85. In addition, Gold et al., (2001), proposed a value of 0.9. Table VI above showed the output from the HTMT analysis and based on the HTMT data presented, it is confirmed that no DV problems are according to the HTMT_{0.9} criteria. Thus, all the indicators of latent variables were measuring different latent constructs. Thus, the model does not contain any overlapping indicators from the respondents' perceptions. All in all, it can be concluded that all the constructs of this study have confirmed the DV (Fornell & Larcker, 1981).

4.4. Main model estimation (pls-sem)

4.4.1. Structural Model (Inner Model)

The researcher applied the five steps suggested by Hair et al. (2017) to assess the structural model results in this section.

Step 1: Assess the structural model for Collinearity issues

Multicollinearity occurs when two or more predictors in the model are correlated and provide redundant information about the response. Multicollinearity between items is a significant issue in PLS-SEM as they influence the estimation of outer loading, weights, and their statistical significance (Eliakunda, 2019). This is because that multicollinearity raises the standard error and as a result affects the ability to differentiate the outer loading estimate to be different from zero. Hair et al. (2014) suggested assessing the multicollinearity of the constructs before deriving the structural model. Further, they recommended revising the model if any of the VIF values exceeded 5. Thus, before conducting model assessment researcher tested the structural model for multicollinearity. This is necessary as the estimation of path coefficients of this study is based on the Ordinary Least Square (OLS) regression (Hair et al., 2017). Both Variance Inflation Factor (VIF) and tolerance values were used to test multicollinearity problems for both independent variables and dependent variables. As per Mansfield & Helms (1982), multicollinearity problems do not occur when the VIF value is over 0.5 and multicollinearity is low when the tolerance value is close to 1. Some other scholars stated that a TOL value less than 0.2 or a VIF value above 5 can be treated as multicollinearity (For example, Hair et al., (2014), James et al., (2013). Hair, et al., (2017) claimed that if the level of collinearity value measured through TOL is 0.20 or lower and a VIF value of 5 or more, the researcher should consider eliminating one of a corresponding measured variables or combine the collinear measured variables into one or new composite measured variable or an index.

Table 7: Inner VIF and TOL values

	VIF (AI)	SIF (SF)	TOL (1/VIF)
DA		1.658	0.603
DC		1.036	0.965
PEU		1.699	0.588
PI	1.515		0.660
PV	1.432		0.734
SC	1.125		0.888
SF	1.503		0.665
SI	1.250		0.8

Source: Smart PLS Output

Data were tested for multicollinearity. Table VII shows that none of the constructs exceeded the recommended cut-off value of 5 for VIF and all the constructs' TOL value is in excess of the threshold of 0.2. Thus, multicollinearity was not a problem as the highest VIF value was 1.699 which is well below the expected threshold of 5. Further, TOL values were ranged from 0.58 to 0.96 which is well above the threshold value of 0.2. Thus, the author can conclude that there is no multicollinearity problem for independent variables and dependent variables.

Step 2: Significance and Relevance of the Structural Model Path Coefficients

After ensuring no multicollinearity exists in the structural model, the researcher assessed the significance and relevance of the path coefficients of the hypothesized relationships. 'T-statistics' generated using bootstrapping is used to evaluate the significance of the path coefficients. This step involves measuring and examining the structural model's predictive capabilities and the relationship between the latent constructs. In PLS-SEM, path coefficient can be used to assess the significance and relevance of the structural model relationships, R^2 value to assess the model's predictive accuracy, the model's predictive relevance can be established through Q^2 . Further, f^2 can be used to evaluate the impact of independent variables on the dependent variable

Path Coefficients

In the structural model, the 'path analysis' method is applied to analyze the parameters (Mateos-Aparicio, 2011). Path coefficients are the values that appeared on the paths between latent variables in the structural model. Also, path coefficients reflect the direct effect of one independent variable on the dependent variable. For example, if a particular path coefficient was P, this means that an increase of 1 Standard Deviation in the exogenous Latent Variable would result in an increase of P in the Standard Deviation of the dependent variable (Har *et al.*, 2014). Path significance of this model is assessed through bootstrapping procedure of SMART PLS 3.3.5. The significance of the path coefficients between the Latent Variables was examined referring to the t-values produced by bootstrap, and the direction of the relationship between latent variables was established referring to the algebraic sign of the path coefficients.

Table 8: Path Coefficients

Hypothesis	Relations hip	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Result
H1	DA->SF	0.362	0.025	14.295	0.000	Supported
H2	DC->SF	0.132	0.044	2.989	0.003	Supported
H3	PEU->SF	0.707	0.022	31.793	0.000	Supported
H4	SF ->AI	0.015	0.009	2.694	0.018	Supported
H5	SI->AI	-0.022	0.010	2.254	0.025	Supported
H6	SC ->AI	-0.006	0.007	0.865	0.388	Not Supported
H7	PV->AI	-0.059	0.010	6.131	0.000	Supported
H8	PI ->AI	1.035	0.007	143.496	0.000	Supported

Source: SMART PLS Output

Hypotheses Testing

Depending on the various coefficient values and scores obtained from the analysis, the established hypotheses were tested according to the direction and strength of the path coefficients (β), 'T- statistics and significance level given by 'p value'. Statistical significance of structural paths was established using 'P-Value test'. Accordingly, to ensure that $\beta > 0$, at the 0.05 significance level, the two-tailed P-value associated with the path coefficient was calculated. When $P \leq 0.05$ the hypothesis is supported otherwise the hypothesis is not supported. The 'T ratio test' can be seen as a variation of this test, where the 'T-ratio' sometimes named as 't-statistic' or 'T-statistic' or P-value was used against a threshold of 1.96.

Digital Accessibility and the Level of Scenarization of Finance

H₁: Digital Accessibility has a significant positive impact on the level of Scenarization of Finance, (DA -> SF)

The path leading from digital accessibility to scenarization of finance was used to examine the hypothesized relationship (H1) which indicates a positive relationship between digital accessibility on measuring the level of scenarization of finance. The test for this hypothesis showed that digital accessibility was positively related to scenarization of finance ($\beta = 0.362$; Statistics = 14.295; $p = 0.000$). This indicates that when digital accessibility increases by 1, the level of scenarization of finance goes up by 0.362. Thus, the study showed that a higher level of digital accessibility would result in a greater level of scenarization of finance. Thus, the H1 of the study was supported.

Digital Capability and the Level of Scenarization of Finance

H₂: Digital Capability has a significant positive impact on the level of Scenarization of Finance (DC -> SF)

The study had established a significant positive relationship between digital capability and the level of scenarization of finance. The path leading from digital capabilities to scenarization of finance was used to examine this hypothesized relationship (H2). The test for this hypothesis showed that digital capabilities were positively related to the level of scenarization of finance ($\beta = 0.132$; T Statistics = 31.793; $p = 0.003$), which indicates that when digital capabilities go up by 1, the level of scenarization of finance goes up by 0.132. Thus, the study showed that a higher level of process hard quality would result in a greater level of B2B multi-process cargo clearance. Thus, the H2 of the study was supported.

Perceived Ease of Use and Scenarization of Finance

H₃: Perceived Ease of Use of Fintech services has a positive impact on the level of Scenarization of Finance (PEU -> SF)

The test for this hypothesis showed that Perceived Ease of Use was positively related to scenarization of Finance ($\beta = 0.707$; T Statistics = 31.793; $p = 0.000$), meaning that when Perceived Ease of Use goes up by 1, scenarization of Finance goes up by 0.707. Thus, the study showed that a higher the Perceived Ease of Use

offered by Fintech products greater the level of scenarization of Finance. Thus, the H3 of the study was supported.

Scenarization of Finance and the Users' Adoption Intention

H4: The level of scenarization of finance has a significant positive impact on an individual's Fintech adoption intention (SF -> AI)

The test for this hypothesis showed that scenarization of finance was positively related to Users' Adoption Intention ($\beta = 0.015$; T Statistics = 2.694; $p = 0.018$), meaning that when scenarization of finance goes up by 1, Users' Adoption Intention goes up by 0.015 standard deviations. Thus, the study showed that a higher level of scenarization of finance would result in a greater level of users' Fintech adoption intention. Thus, the H4 of the study was supported.

Social Influence and the Adoption Intention

H5: Social influence has a significant positive impact on users' adoption intention.

The test for this hypothesis showed that scenarization of finance was negatively related to Users' Adoption Intention ($\beta = -0.022$; T Statistics = 2.254; $p = 0.025$), meaning that when social influence goes up by 1, Users' Adoption Intention goes down by 0.022. Thus, the study showed that a higher level of social influence would result in a lesser level of users' Fintech adoption intention. Thus, the H5 of the study was supported.

Security Concern and Adoption Intention

H6: Security concern has a negative impact on users' adoption intention (SC ->AI)

The test for this hypothesis showed that security concern was negatively related to adoption intention ($\beta = -0.006$; T Statistics = 0.865; $p = 0.388$), meaning that when security concern goes up by 1, adoption intention goes down by 0.006. Also, since the p value is >0.05 , the study showed no statistically significant relationship between security concerns and the users' Fintech adoption intention. Hence, the H6 of the study was not supported.

Price Value and the Adoption Intention

H7: Price value will have a positive influence on users' adoption intention (PV->AI)

The test for this hypothesis showed that price value was negatively related to users' adoption intention ($\beta = -0.059$; T Statistics = 6.131; $p = 0.000$), meaning that when price value goes up by 1, users' adoption intention goes down by 0.059. Thus, the study showed that a higher level of price value would result in a lesser level of users' Fintech adoption. Thus, the H7 of the study was not supported.

Personal Innovativeness and Adoption Intention (PI \rightarrow AI)

H₈: Personal Innovativeness (PO) has a positive influence on users' adoption intention.

The test for this hypothesis showed that Personal Innovativeness was positively related to users' adoption intention ($\beta = 1.035$; T Statistics = 143.496; $p = 0.000$), meaning that when Personal Innovativeness goes up by 1, users' adoption intention goes up by 1.035. Thus, the study showed that a higher level of Personal Innovativeness would result in a greater level of users' Fintech adoption. Thus, the H8 of the study was supported.

Step 3: Coefficient of Determination (R^2 Value)

As a statistical measure coefficient of determination which denotes R^2 is an important criterion for a structural model. R^2 explains the model's predictive power or the extent of the percentage variation of the dependent variable explained by the independent variable/s. According to the recommendations of Cohen (1988), R^2 values of 0.26, 0.13, and 0.02 related to endogenous constructs might be interpreted as substantial, moderate, or weak respectively. Whereas as per Hair et al. (2017), R^2 values of 0.75, 0.50, or 0.25 for endogenous latent constructs can, as a rule of thumb, be correspondently described as substantial, moderate, or weak. Further, the improved version of the R^2 is the adjusted coefficient of determination (adjusted R^2). This is calculated by adjusting the coefficient for the number of predictors in the model.

Table 9: R^2 and Adjusted R^2 values

	R Square	R Square Adjusted
Adoption Intention	0.982	0.982

Source: SMART PLS Output

The examination of the endogenous variables' predictive power had high R^2 values (refer to Table IX). The explanatory power for Fintech adoption intention, the focal latent construct of this study is substantial (0.982) and therefore provides good support for nomological validity of the proposed research model.

Step 4: Results of Effect Size f^2

Effect size (f^2) was used to assess whether an omitted predictor latent construct had a substantive impact on the endogenous latent construct (Hair et al., 2017). Further, the f^2 values presented in Table 8 below explain the impact on the endogenous variable in the absence of that specific exogenous latent variable from the model. The results for the f^2 presented in Table X can be interpreted as the effect of dropping Digital Accessibility (DA) and Personal Innovativeness (PI) from the model has a high impact on the dependent variable. Further, dropping of Digital Capabilities (DC), Perceived Ease of Use (PEU), and scenarization of Finance (SF) is having a medium impact on the dependent variable. Also, the dropping of Security Concerns (SC) and Social Influence (SI) is having a small impact on the dependent variable.

Table 10: Effect Size

	AI	SF	Effect Size
DA		.656	Large
DC		.328	Medium
PEU		.338	Medium
PI	0.379		Large
SC	0.04		Small
SF	0.303		Medium
SI	0.036		Small

Note: If f^2 is <0.02 no effect; 0.02-0.14 small, 0.15-0.34 medium; >0.35 Large

Source: Smart PLS output

Step 5: Predictive Relevance Q^2

The predictive relevance of the model critically evaluates the predictive validity of a complex model (Stone, 1974; Geisser, 1975; Cha, 1994; Chin, 1998). The

predictive sample reuse technique (Q^2) can be effectively used as a criterion for predictive relevance (Stone, 1974; Geisser, 1975; Cha, 1994; Chin, 2010). Therefore, based on the blindfolding procedure of Smart PLS, Q^2 values for each construct were calculated. The rule of thumb indicates that a cross-validated redundancy of above 0.5 ($Q^2 > 0.5$) can be regarded as a predictive model (Chin, 2010). However, Q^2 values larger than zero are meaningful, and values higher than 0, 0.25, and 0.50 depict respectively the small, medium, and large predictive accuracy of the PLS path model (Hair et al., 2018). Since Q^2 values presented in Table XI below are above zero, the researcher can confidently conclude that the model has predictive relevance. In other words, the model under study is relevant to predict the considered endogenous variable.

Table 11: Construct Cross-validated Redundancy

	SSO	SSE	Q^2 (=1-SSE/SSO)	Predictive Relevance
AI	984.000	179.442	0.818	Large
DA	1312.000	1312.000		
DC	984.000	984.000		
PI	1312.000	1312.000		
PV	984.000	984.000		
SC	984.000	984.000		
SF	3608.000	2361.827	0.345	Medium
SI	1312.000	1312.000		
USE	1312.000	1312.000		

Note: If Q^2 is 0.02-0.14 small, 0.15-0.34 medium; >0.35 Large

Source: Smart PLS output

5. Discussion

Study findings revealed that digital accessibility has a significant positive impact on the level of scenarization of Finance. This indicates that when people have more access to digital financial solutions those services will better serve individuals, businesses, and even the government. As per the study findings, usefulness of Fintech services resulted to establish a higher level of scenarization of finance. When Fintech products simplified the financial transactions, this will lead to making consumers' life easier. Consequently, when Fintech firms develop new products, they shall mainly focus on the consumer needs rather than digitalizing conventional business models which most of the incumbents do. Hence, they shall start the process of developing a new product as a solution to existing market issues. In the end, they should be able to make a real impact on the target market.

The findings of the study also confirmed that there is a statistically significant relationship between social influence and adoption intention. Zhou et al. (2010), reported a strong influence of social groups on consumers' adoption intentions. Also, the study finding is compatible with many of the previous studies for example, Baabdullah et al., 2019; Makanyeza, 2017; Malaquias & Hwang, 2019. As per Gbongli et al., (2019), when there is a high social influence from the reference group to which the individual belongs, a higher understanding of the usefulness of a new product/service is shown. Matsuo et al., (2018), highlighted that social influence is having a direct impact on adoption intention when users are having less experience with the technology. Therefore, people with less knowledge, less confidence, and less perceived utility can be motivated to adopt new technologies through their reference groups.

The direct relationship between personal innovativeness and Fintech adoption is evidenced in the study as it removes the resistance of an individual to use Fintech services while resolving their uncertainties regarding the applications of these services. According to Liebana-Cabanillas et al. (2018), highly innovative consumers can act as a pioneer for the implementation of new information technology. Further, innovative persons can help to measure and predict the behavior of the user and make a correction if any errors are found, and they are indicated as risk-takers with respect to the ambiguity of new technologies (Liebana-Cabanillas et al., 2018; Kosba et al., 2016).

As per the Expectancy Theory of Vroom (1964), there is a direct effect of perceived security on intention to use new technologies. Furthermore, as per the Privacy Calculus Theory, privacy risk directly and negatively affects privacy behaviors (Chellappa and Sin 2005; Dinev and Hart 2006). The findings of the study also confirmed a significant negative impact of security concerns towards Fintech adoption intention in Sri Lanka. Stewart and Jurjens (2018), highlighted that security threats with respect to mobile applications in Germany have been increased enormously and have become a key challenge for both users and Fintech firms. Therefore, service providers shall think of developing strategies to enhance consumers' knowledge and understanding of the services. Further, the firms shall take a license or a certificate from the government authority to conduct services like conventional service providers in order to build trust among consumers.

The findings of the study confirmed that there is a statistically significant positive relationship between price value and Fintech adoption intention in Sri Lanka. This finding is consistent with the past studies (Grewal et al., 1998; Pura, 2005). Thus, price value is an important concern for both incumbent players and Fintech startups when launching products in Sri Lanka.

6. Conclusion

Drawing on SEM the theoretical lens of the scenarization of finance and TAM, UTAUT, RAT models, this study assesses the combination of factors that significantly impact Fintech acceptance in Sri Lanka. To the best of our knowledge, this is the first study that empirically examines the concept of scenarization of finance in Fintech acceptance research. Thus, this study has addressed an important knowledge gap in the literature. In addition, this study extends research on Fintech acceptance that has predominantly been aligned to conventional theoretical models of the information system field. Given the complications in decision making on whether or not to use the technological innovations, this knowledge is critically important for research, practice and policy. The relevance of this study can be further extended by considering the new perspectives in future studies to examine the conditions to Fintech acceptance in other countries since the context has been identified as important even in the same country. In spite of the contributions, this study has a few limitations. First, the study utilized only the SEM methodology. Also, the researcher identified that most

of the extant studies in this area are conducted using a quantitative approach and as a result, new inspiration to Fintech acceptance research, can be brought for future studies to qualitatively examine this phenomenon. Second, the study is limited to constructs of the scenarization of Finance, TAM, RAT, and UTAUT models, thus, future research can explore the configuration of other conditions that are not captured in this study. Lastly, the study was conducted in Sri Lanka, a developing country. Given that there are differences in the development and peculiarities between countries, a cross-country investigation between developed and developing countries could reveal further insights as well as stimulate a wider understanding of how Fintech acceptance can enhance those economies.

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Presilience for Enhancing Organizational Adaptive Performance within the Sri Lankan Private Sector

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Abstract

The Sri Lankan private sector plays a vital role in the economic development of Sri Lanka, and these organizations are constantly faced with unpredicted circumstances. In this rapidly changing world, being prepared to effectively face and adapt to unexpected crises is an absolute requirement. Therefore, identifying new concepts for enhancing organizational adaptive performance within the Sri Lankan private sector is essential. This study attempts to understand the impact of the newly developed concept of presilience and its contribution towards enhancing organizational adaptive performance (OAP) within the Sri Lankan private sector. The survey questionnaire of the study collected information regarding three independent variables: Openness (OS), Emotional Stability (ES) and Critical Decision Making (CDM) of 180 respondents, which were then analyzed using partial least squares path modeling (PLS) to test the study's hypotheses. The research data analysis reflected that all three variables (OS), (ES) and (CDM) have a positive relationship towards the dependent variable (OAP).

Keywords: Openness (OS); Emotional Stability (ES); Critical Decision Making (CDM); Organizational Adaptive Performance (OAP)

1. Introduction

Preemptive resilience response (Presilience) is a recent concept which discusses "recovery as bouncing back towards a state preceding the hazard event and the transition of the disaster recovery phase into adaptation and further development" (Bogardi & Fekete, 2018). Bogardi and Fekete (2018) further elaborate presilience as a state of the strategic mindset and a state of summarized preparations for mitigating and reducing crises. Further, Presilience is defined as a "very specific phase just before the hazard impact, when the resilience ability is activated by the perception of the immediate realization of risk. Such pre-event resilience relies on those parts of resilience ability in triggering the process that can help to avoid hazard and, hence, disaster impact by swift actions " (Bogardi & Fekete, 2018).

“Presilience” is about being flexible when responding to unforeseeable future circumstances and it further focuses on building the openness, critical decision making, and the emotional stability of the whole organization, while allowing the organization to bounce back better or effectively face the crisis with minimum negative effects (Schneider & Mcquirk, 2020). Prior to discussing "Presilience", the concept of "Resilience" had been discussed since around the mid-1970s. Resilience is the “ability of an interesting system to resist or recover from gigantic challenges that compromise its constancy, possibility, or improvement” (Sapienza & Masten, 2011). Resilience discusses about an organization going back to where they were prior to the incident. As individuals and organizations, there is an utmost need in being prepared for the unexpected and this has been continuously discussed in greater length over the years. Rosowsky (2020) has demonstrated that most organizations have prepared all possible scenarios and drills to face unforeseen circumstances that have been predicted as could occur. Irrespective of all this preparedness, with most recent incidents such as COVID 19 pandemic, there are still a vast number of Sri Lankan public sector organizations that suffered to effectively adopt to the new normal. Therefore, there is a pressing need in identifying concepts for preparing organizations to effectively face crises and smoothly adapt to the new normal

"Presilience" has been demonstrated as a risk management concept, and few research specialists have attempted to show the applicability of this concept towards adaptability of all other businesses' operations. The main focus of the study is to understand the impact of the newly developing concept of Presilience

and its components, towards enhancing organizational adaptive performance of Sri Lankan Private sector businesses.

Adaptive Performance is “to reflect the willingness or ability to change in addition to the enactment of change behaviors” (Jundt, et al, 2015). The concept of adaptive performance is defined in general terms as “an individual’s ability to adapt to dynamic work situations” (Charbonnier & Roussel, 2012). Employees demonstrate adaptive performance by “adjusting their behaviors to the requirements of work situations and new events” (Charbonnier & Roussel, 2012).

The organization is the “mix blend of employees with different skills and employees’ adaptability to change and getting the competitive advantage is an organization’s responsibility” (Tariq, Anwar & Aslam, 2011). Change is the most common and frequent occurrence in future world and improving organizations’ adaptability mindset require discussions in greater length. Further, “influence of employees’ adaptability and change-related uncertainty on their interpretation of organizational actions” are ultimate requirements for discussions (Cullen et al., 2014).

Unpredicted disasters have evolved over the years and Sri Lankan Private sector businesses have been continuously struggling to survive within this ever changing, unpredictable world. Therefore, it is necessary for businesses to develop organizational adaptive performance in order to effectively compete and sustain their business operations. Organizations have to create concepts that surpass resilience, where they are able to effectively adapt to the new normal and sustain themselves in an altered environment. Therefore, the study tries to understand the impact of newly forming concept; “Presilience” for enhancing organizational adaptive performance within the Sri Lankan Private sector businesses.

1.1. Presilience

Experts show that current risk board frameworks and reaction plans are overly muddled and that they are not adaptable enough to adequately meet future unforeseen conditions (Schneider, G., and Mcquirk, T. 2020). They further explain that the solid situational consciousness of workers is driven by a few significant drivers: openness, emotional stability, and critical decision making. “Presilience” develops human interpersonal skills to face unpredicted adversity with a better prepared mindset and adapt to the new normal in a much smoother manner (Diener,

2021). Future focus should be on the people who manage/respond to unexpected circumstances, enhancing their inherent skills and capabilities to be adaptable, flexible and agile in responses, and then building the systems to support their decision making, as opposed to making them unreasonably fit into the system (Schultz, 2021). The "Presilience" concept demonstrates that giving high attention to enhancing employees' interpersonal skills such as openness, emotional stability and critical decision making will lead organizations to be effectively prepared for unpredicted unforeseen circumstances (Schneider, & Mcquirk 2020).

1.2. Resilience and presilience

Resilience is the "ability of an interesting system to resist or recover from gigantic challenges that compromise its constancy, possibility, or improvement" (Sapienza & Masten, 2011). Investigators permit discernments on the term "resilience," which at a point may be supplanted with other obscure terms like "supportability" and "Presilience" (Normandin, et al., 2019; Torabi, Dedekorkut-Howes, & Howes, 2018; Davoudi, et al 2012).

Resilience can be viewed as a distinct ability that is important in adapting and transforming measures (Ogiska & Kobylarczyk, 2015). However, there are a significant number of scholarly inquiries that have been distributed, complaining about the need for clarity in "resilience", flexibility, and its commonsense appropriateness to today's trade world (Shamsuddin, 2020). "Presilience" is the "forward approach" where the organization endeavors to rapidly respond to the circumstance, and the strength is the "regressive approach" where it endeavors to recover and put where the organization was some time ago on the scene (Diener, 2009). According to research, there is a requirement in building models and structures for "preliminary resilience" which can "consolidate nearness and arrangement" of human compulsion and, after a short time, the full individual internal limits will brace the authoritative/local extend levels (Potts, 2019). She assisted in showing that versatility ought to be worked at an individual level (person flexibility) as well as a group/aggregate level (team/collective strength) and that this common status will incite the present day thought of "Presilience".

The "Presilience" concept discusses preparing people to effectively think, make decisions, and be psychologically stable to face unforeseen circumstances, as

opposed to preparing people for those circumstances that have been predicted to happen. Hence, the present study considers openness, emotional stability and critical decision making and these sub variables of resilience are explained below.

1.3. Openness

Openness refers to “one’s curiosity, broadmindedness, and receptiveness to new environments and events and is one of the Big Five dimensions” (Pulakos. et al.,2014). Individuals high on Openness tend to display “traits such as tolerance and curiosity when confronted with novel situations; hence, they should be less likely to perceive change as stressful and more likely to adapt more effectively” (Barrick, & Mount, 1991) and further people high on Openness “performed better when asked to do new tasks; and judge while reflecting a positive correlation between Openness and coping with organizational change” (Vijayabanu & Swaminathan, 2016; Thoresen, Pucik, & Welbourne 1999).

1.4. Critical decision making

Critical Decision making is a process that continuously involves risk & uncertainty in the corporate world (Li, et al, 2020). Critical decision making is a “valuable skill: whether you are deciding which courses to take or career to pursue, what toothpaste to use or what stocks to buy, which candidate to vote for or which cause to support, which reports to believe or what claims to reject, critical thinking can be very useful” (Waller, 2021).

Critical Decision making has “evolved over the years where now many organizations are allowing automated systems to provide best decisions after using the data analysis of artificial intelligence” (Araujo, et al 2020). This process contains a high risk of being wrong when used in decision making, as decision making has relied on inputted data to a system and the data accuracy is questioned. Research indicates that a “balanced approach to decision-making during challenging times is necessary in order to avoid risks that jeopardize the lives and wellbeing of people with intellectual and developmental disabilities” (Luckasson, et al 2020).

1.5. Emotional stability

Emotional stability refers to the “ability to remain calm and levelheaded when confronted with difficult, stressful, or changing situations” (Pulakos, et al., 2014). Emotional stability of employees has been identified as a key component that will increase the capabilities of human capital of an organization (Mokhtarian & Mohammadi 2011). Alhozi, Hawamdeh & Edenat (2020) identified emotional stability “as a predictor of employee engagement”. Emotional stability and its related effects lead the employees to bring various work behaviors and attitudes that will positively impact the business growth (Abbas, Ashiq, & Noreen 2021).

Previous researchers have identified that emotional stability “has a positive impact on work engagement of the employees and states that higher work engagement enhances the commitment and job satisfaction among the employees and reduces employee absenteeism at the workplace” (Aggarwal, et al., 2020).

2. Material and methods

Since this study focuses on examining resilience for enhancing organizational adaptive performance, the managers who are currently working in Sri Lankan private sector organizations have been considered the target population. The survey questionnaire was constructed, and a total of 300 questionnaires were circulated via Google Forms among managerial level employees working in private-sector organizations with some prior experience with the concept of resilience. As a result, 195 questionnaires (65 percent complete) were collected; however, due to fifteen incomplete questionnaires, only 180 (of the 195 questionnaires) could be used for the survey. As a result, the analysis considered a total of 180 usable surveys. Hair et al. (2013) considered a response rate of 65 percent acceptable in social science research.

A three-part structured questionnaire was employed in the investigation (i.e., Part 1 for background information on managers; Part 2 for Resilience including openness, emotional stability and critical decision making; and Part 3 for organizational adaptive performance). The data was gathered between January 2022 to May 2022. The study’s four components were operationalized as multi-item constructs. As a result, (1) openness was adapted from David, Blackburn & Cherry (2020). The (2) emotional stability was adapted from Mead (2019) and

Bariso (2019). Then (3) critical decision making was adopted from Klitmøller, & Jonsen (Klitmøller et al., 2015). Finally, (4) organizational adaptive performance was supported by Voirin & Roussel (2012). All the variables were addressed by using a five-point Likert Scale ranging from “1 strongly disagree” to “5 strongly agree”. All four independent variables were answered by the managers of the private sector companies in order to explore the impact on organizational adaptive performance

2.1. Demographic analysis of the sample

According to the survey, which is shown in Table 1, males made up 60% of the sample, with females accounting for 40% of the managers, and 80% of the sample consisted of those aged 18–35 years, and 20% was represented by those aged 36–50 years. The majority (68%) of the managers have more than five years of experience, and 26% of the managers have more than 10 years of working experience. Furthermore, 77% of managers are educated and hold a bachelor’s or master’s degree, and those managers belong to more than ten sectors of the private sector in Sri Lanka.

Table 4. Demographic analysis

Demographic Data	No. of Surveys	Percentage
Gender (female)	72	40
Gender (male)	108	60
Age (<25 years)	3	2
Age (26–30 years)	6	3
Age (31–35 years)	135	75
Age (36–40 years)	12	7
Age (> 40 years)	24	13
Work experience: (<1 year)	2	1
Work experience (1–5 years)	9	5

Work experience (5–10 years)	123	68
Work experience (10–15 years)	38	21
Work experience (> 15year)	9	5
Advanced Diploma	41	23
Degree or equivalent	107	59
Postgraduate qualification	32	18
Sectors: agriculture and forestry	6	3
Banking, insurance, and financial services	72	40
Industries (mining, manufacturing)	17	10
IT, ITES, KPM, and BPM services	40	22
Services (wholesale, retail, transportation)	45	25
Sample size	180	100

2.2. Evaluation of the conceptual model

The conceptual model was evaluated against the measurement model by evaluating the outer loadings of the items in the construct. The outer model of the conceptual framework consisted of the independent and dependent variables and their reflective indicators, which were examined by composite reliability (CR) and average variance extracted (AVE) methods. The threshold values are $CR > 0.60$ and $AVE > 0.50$ (Hair Jr et al., 2014; Hair et al., 2011). The final measurement items and outcomes of the measurement model, including standardized factor loadings, composite reliabilities, and average variance extracted, are shown in Table 2. This demonstrates that the indicators and their underlying constructs are valid, and the research constructs' composite reliability scores also show that the measuring model is reliable.

2.3. Discriminant validity of the latent variables

The discriminant validity of the latent variables was assessed using the method proposed by Fornell and Larcker (Fornell & Larcker, 1981). The discriminant validity of each latent variable is shown in Table 3, in which the AVE derived from each construct is also shown in the diagonals. The square of correlations (R²) between constructs is shown in the other items in Table 3. The AVE of the specified construct is not exceeded by any non-diagonal entry.

The next approach to assessing discriminant validity is the heterotrait–monotrait ratio (HTMT) where the threshold value of 0.90 suggests a lack of discriminant validity (Hair Jr et al., 2014). All the values in Table 3 are less than 0.90 and can be concluded not discriminant issues.

Table 2. Standardized factor loadings (t-value) and composite reliability/AVE.

	Constructs and Indicators	Standardized Factor Loadings (t- Value)	Composite Reliability/AVE
Openness (OS)	Expressing genuine curiosity about the issue.	0.694(5.255)	0.783/0.647
	Feeling and showing genuine enthusiasm about the possibilities.	0.902(13.329)	
	I can recover from negative emotion quickly	0.881 (8.011)	
Emotional Stability (ES)	I do not get upset easily.	0.853 (10.227)	0.855/0.666
	I do not easily feel as if I am facing imminent disaster	0.702(5.086)	
	I am able to come up with rapid solutions	0.914(13.128)	
	When I am in a team of specialists, I am	0.700(5.154)	0.834/0.5563

Critical Decision Making (CDM)	still able to provide suitable ideas.		
	I can find ways to effectively utilize weaker subordinates.	0.593(3.839)	
	I have the desire to continue research until I find an effective solution to a problem.	0.757(6.747)	
	I often read updates about the industry and global changes	0.891(9.935)	
Organizational Adaptive Performance (OAP)	I try new concepts within the organization with the hope of effectively facing future changes.	0.818(10.135)	0.936/0.747
	I often predict what changes could happen.	0.955(11.841)	
	I easily adjust to new ways of doing things over a short period.	0.800(8.920)	
	I easily adjust to new ways of doing things over a short period	0.850(9.074)	

Table 3. Discriminant validity of the latent variables—Fornell–Larcker criterion and HTMT

Latent Variables	Fornell–Larcker Criterion				Heterotrait—Monotrait ratio (HTMT)			
	CDM	ES	OAP	OS	CDM	ES	OAP	OS
CDM	0.750							
ES	0.118	0.816			0.282			
OAP	0.438	0.372	0.864		0.442	0.403		
OS	0.242	0.624	0.626	0.805	0.456	0.844		0.836

2.4. Evaluation of the structural model

Once the measurement model results were confirmed, the structural model was analysed with the PLS-SEM algorithm in order to produce the values of the reflective and formative paths. The bootstrap procedure was applied to get the significant results of the path co-efficient (p- values). The final bootstrapping results are shown in the figure 1. The significant relationships between the constructs are determined by the value of p, which is less than or equal to zero (5%; two-tailed test) and the empirical t-value is above 1.96 (F. Hair Jr et al., 2014) . The structural model assessment procedure comprises collinearity issues with variance inflation factor (VIF) which is followed by the estimation of the path coefficient in the structural model and assessment of the R² which is 47.9%. The critical level of collinearity measured with a VIF value is above 5. The evaluated VIF values are tabulated in Table 4, and all the VIF values of dependent and independent variables are below the threshold value of 2. It can be concluded that there are no multicollinearity issues with this structural model. All three paths (OS- > OAP, 0.000 < 0.05, ES- > OAP, 0.034- > 0.05 and CDM- > OAP, 0.000- > 0.05) of the final structural model were significant (p < 0.05) which are shown in the Table 5.

Table 4. The collinearity assessment is performed by variance inflation factor (VIF).

Variables	OAP
OS	1.7187
ES	1.6404
CDM	1.0645

Table 5. Path values of the relationship

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Statistics (O/STDEV)	<i>p</i> Value
OS-> OAP	0.561	0.546	0.147	3.818	0.000
ES-> OAP	0.143	0.152	0.118	1.206	0.034
CDM-> OAP	0.303	0.310	0.082	3.713	0.000

Table 6. Evaluation of the hypotheses

Relationship	Hypotheses	Path Values (<i>p</i> < 0.05)	Results
OS -> OAP	H1: There is a significant impact of openness on organizational adaptive performance.	0.561 (0.000)	Accepted
ES-> OAP	H2: There is a significant impact of emotional stability on organizational adaptive performance	0.163 (0.034)	Accepted
CDM-> OAP	H3: There is a significant impact of critical decision making on organizational adaptive performance.	0.303 (0.000)	Accepted

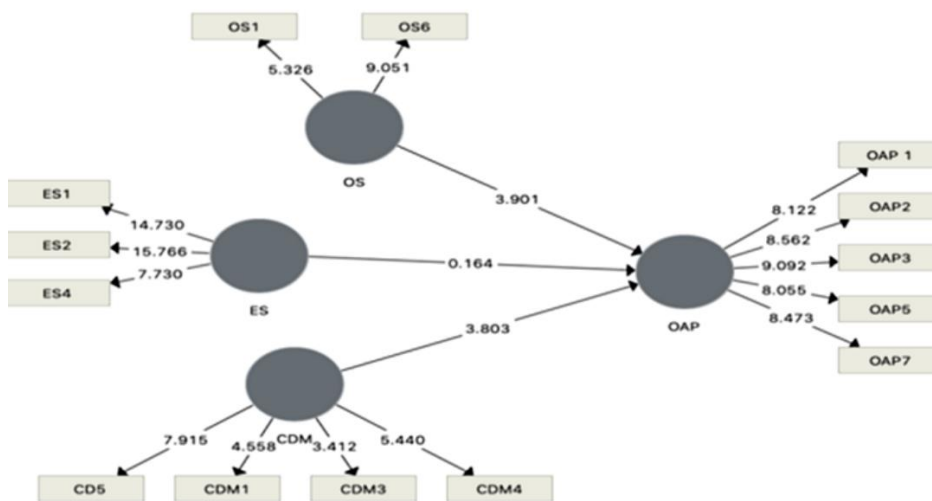


Figure 1: PLS-SEM Bootstrapping Diagram

3. Results and discussion

The analysis attempts to examine the dimensionality of the resilience constructs and to examine how the dimensions of these constructs impact organizational adaptive performance. Table 6 illustrates the summary of the hypotheses evaluation. The results of the study confirmed the positive and significant impact of the first independent variable of openness of managers on the organizational adaptive performance in the private sector of Sri Lanka. Much of the existing literature is in line with the present findings. Pulakos, et al. (2014) carried out an analysis to identify how one's openness leads to effective receptiveness towards new environments. Vijayabanu & Swaminathan (2016) described in a similar analysis that people who tend to have high openness had the ability to perform effectively when new tasks were given.

Further, the present study confirmed that the emotional stability & critical decision making of managers have a statistically positive and significant impact on organizational adaptive performance in the private sector of Sri Lanka. The findings of numerous researchers and professionals are on par with the above-mentioned outcome of the present study. Abbas, Ashiq, & Noreen, (2021) identified that emotional stability of employees has a positive impact towards bringing various work behaviors and attitudes that ultimately benefit the organizational growth. Alhozi, Hawamdeh & Edenat (2020) had demonstrated that

emotional stability has a positive relationship towards employee engagement which enhances overall business performance. According to Li, M. and Chapman G.B. et al, (2020), analysis identified that Critical Decision Making is an effective process that involves both risk and uncertainty. Further, the research analysis of Luckasson, et al. (2020) affirms that the balanced approach of critical decision making enhances the personal ability to adapt to the new normal.

3.1. Theoretical implications

Sri Lankan private sector businesses have continuously faced unforeseen disasters over the last several years and have struggled to effectively adapt to the new normal or sustain themselves. There are numerous researches being conducted with a similar interest of enhancing organizational adaptive performance. However, there is still a considerable literature gap when considering the research interest over the Sri Lankan private sector organizations' point of view. Sri Lankan Private sector organizations greatly contribute towards the Sri Lankan economy and therefore, more research should be conducted to identify methods of enhancing this sector's organizational adaptive performance ability. This study made a significant theoretical contribution by studying the untapped new concept of Presilience and its components' contribution towards the enhancement of organizational adaptive performance. According to the findings of this study, all three components of Presilience have a positive relationship towards enhancing organizational adaptive performance. This research study's findings may support future researchers towards elaborating the impact of the Presilience components to enhance the organizational adaptive performance.

3.2. Practical implications

In this study, it was identified that the newly emerging concept of Presilience and its components have a significant relationship towards organizational adaptive performance. As per the Colombo Stock Exchange (CSE) listing in March 2022, there are 296 companies representing twenty different industry groups. Sri Lanka's private sector employs approximately 43% of the country's overall workforce, making it the country's largest industry. When conducting reviews of previously conducted research analyses, it is evident that certain industries in Sri Lanka have already introduced Presilience concepts and have been effectively adapting to the unfortunate circumstances that occurred over the last few years. Approximately, the Private Banking sector had expanded by 12.1%, Tea plantation had expanded

by 17.9% and garments exports had increased by 21.9% during the year 2021. However, based on present trends, it has become difficult for most organizations to predict future disasters and organizations being resilient has become even more difficult. As a result, private sector companies must invest their time in researching new concepts in order to effectively enhance the adaptive performance and sustain the business.

3.3. Limitations and recommendations for future research

There is very limited research that has been conducted on the research topic in Sri Lanka, and therefore, collecting existing literature was a difficulty. Further, due to a few confinements, the estimated data calculation had to be limited to about 180 managers, whereas a larger number of respondents would have provided a more accurate influence on the research findings.

4. Conclusion

Resilience is the ability of an interesting system to resist or recover from gigantic challenges that compromise its constancy, possibility, or improvement (Sapienz & Masten, 2011). Resilience discusses about an organization going back to where they were prior to the incident. However, most recent global crises have allowed researchers to further question the applicability of the Resilience concept and if it is alone enough for organizations to effectively face unpredictable crises. In most recent global crises, irrespective of the resilience efforts these organizations had put in place, it was extremely difficult for organizations to get back to where they were prior to the incident. Therefore, recent researchers have been discussing a next level of the concept that might fulfill the need of organizations to develop their adaptive performance to effectively face unforeseen global crises.

Preemptive resilience response (Presilience) is a concept that has been recently developed by researchers, as next level of Resilience. Presilience discusses about recovery as bouncing back towards a state preceding the hazard event and transition of the disaster recovery phase into adaptation and further development (Bogardi & Fekete 2018).

Sri Lankan private sector contributes to a major revenue of the economy and these organizations will be faced by unpredicted circumstances at all times. In this rapidly changing world, being prepared to effectively face and adapt to unexpected

crises is an utmost requirement. Therefore, identifying new concepts for enhancing organizational adaptive performance within the Sri Lankan private sector has to be discussed in greater length. This study attempts to understand the impact of the newly developing concept of Resilience and its components, towards enhancing organizational adaptive performance (OAP) within the Sri Lankan private sector.

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